

INNOVATION UNLEASHED







PANDEMIC!



Pre-COVID-19, we were on track to have the best year in the past seven, tracking north of 10% organic growth for the year. With the virus and the ensuing shutdown of most of our academic markets and urology centers, we hit a pause on our growth. We exited Q3 with 6% organic growth, but then the full weight of our markets being shut down resulted in a Q4 decline of (8%). For the full fiscal year we managed to grow 4%, but this is clearly not the result we were looking for. What does this mean? The investor community remained optimistic about our future for two reasons: first, we pivoted a portion of the company toward COVID-19 solutions; and second, we all expect research funding to come back stronger than ever next year given the new importance placed on being better prepared for pandemics. Life Science research has never been so interesting to so many. It seems everyone in the world now knows what an Antibody does!

Company revenue for the year topped \$739MM. We see an incredible future ahead in fiscal year 2021 with our core products coming back into focus, academic labs reopening, and our expanding COVID-19 solutions finding full traction. Our most exciting COVID-19 solution is our best in class and fully quantitative serological test, which can determine if a patient has not only been exposed to the virus, but also their level of immunity. It took a great effort by our team of researchers, together with the team at Mount Sinai, to create a world class test. As of this printing, there have been over 60,000 patients treated by Mount Sinai and our test looks to be the most specific and accurate serology test so far. Hopefully, in the coming months we will see several vaccines enter the market as well. We intend to sell our test to vaccine makers too, given it is exactly what they need to fully test the efficacy of their vaccines.

While our latest initiative into serological testing is exciting, it is by no means the only exciting thing we have going on here at Bio-Techne. Our GMP factory is on schedule for qualification in the Fall of 2020 and production in January 2021. This \$50 million investment is the cornerstone of our emerging Cell and Gene Therapy business unit. Currently, our GMP proteins business is growing at triple-digit rates. The remainder of the business unit, comprised of our TcBuster™ gene editing platform and Cloudz™ polymeric beads, are finding traction with biopharma companies in many successful pre-clinical studies. To be able to offer a complete Cell and Gene Therapy workflow, we created a Joint Venture with Fresenius Kabi and Wilson Wolf to offer not only world class bioreactors, but also a state of the art leukapheresis instrument for cell aggregation.

Finally, our next exciting new testing platform is our ExosomeDx solution, the ExoDx[™] Prostate Test, which is intended as a risk assessment tool for cancer diagnostics, intended for men 50+ years, with a PSA in the "gray zone" 2-10ng/mL, who are considering a biopsy. This test was off to a roaring start earlier this year, but our market is reliant on open urology practices which mostly have shut down during the pandemic. They are now re-opening and we also introduced an at-home sample collection kit for this diagnostic test which is seeing good initial acceptance.



OUR BUSINESSES

Even with the COVID-19 impact to our business, we managed to add 100+ people to the company, resulting in an employee count of just over 2,300 worldwide. We focused on keeping our expenses down and held our EBITA margins within an acceptable range to eliminate any need to restructure or furlough employees. We see COVID-19 as a one-year problem and are confident we can return to pre-COVID-19 level growth rates. The new company segment structure (Protein Science and Genomics/Diagnostics) is working well. Currently the 5 divisions are: Research Reagents (RSD) and Analytical Solutions (ASD) in the Protein Science segment and Diagnostics Reagents, Genomics and ExosomeDx in the Genomics/Diagnostics segment.

RSD had a very good year until the COVID-19 situation arose and finished near flat growth. This is the division from which most of the resources were pivoted to build our serological COVID-19 test, even though the test itself falls within our Assay business. We remain very strong in RSD in both proteins and antibodies, with hundreds of new products launched. We did a fair amount of custom design work for both proteins and antibodies and this year was a record year for us. Our cell and gene therapy initiative also resides within RSD, which currently is about \$30MM in revenue but expected to surpass \$300MM in 5 years.

ASD had a satisfactory year with growth of 6%, being less affected by COVID-19 due to a strong biopharma customer base. We had impressive growth in our biologics platform; Maurice posted a 14% increase and our Multiplex Immunoassay platform, Ella, finished with 30% growth due to strong COVID-19 applications in both research and patient monitoring activities. Simple Western instruments finished soft with 3% growth due to the weak academic market but we remain firm in our view that replacing manual western blots in labs is still in a low double-digit share position with years of upside left to go.

Diagnostics Reagents, with 6% growth, had the best year in the seven years I have been with the company. We have worked hard improving the product and customer pipeline, and the division also benefited from selling antibodies and other components to global diagnostic players for COVID-19 solutions.



Genomics met similar academic headwinds to our RSD and Simple Western businesses, although we see strong traction with our new HiPlex RNA-Scope product line.

Our ExosomeDx business started the year off extremely well, leveraging the Local Coverage Determination from NGS which allowed Medicare to reimburse for the test to eligible patients. We also published a clinical utility study based on 500 patients that is being well received by both regional and national private payers, and which we expect will speed up our ability to scale this business. Urologists have shut down their offices during the pandemic. To counter this, we developed an at-home sample collection kit that allows the urologist to prescribe the test by phone. We process and deliver the results back to the patient via their urologist. We have had very good acceptance with this new sample collection kit and it will further accelerate the acceptance of the test as we see urologists reopening their clinics. A bright future still lies ahead for exosomes as a platform for the company.

Moving to our international operations, EMEA struggled a bit all year coming off of two plus years of double-digit growth but ended this year with low single-digit growth, mainly due to the COVID-19 impact. We have made some commercial leadership changes and further expanded our subsidiary model in Europe, both of which appeared to be working. The pandemic then hit and, similar to the Americas, academia shut down. Europe is now opening back up country by country, with the UK being last. We are very bullish on EMEA getting back to high single-digit growth as we further expand our platforms, especially with cell therapies, GMP proteins, biologics instruments, Simple Plex and Simple Western. All have a bright future. APAC, including China, had a great year regardless of COVID-19. While China had midsingle-digit growth in Q3, performance accelerated back to 24% in Q4, ending the year at 18%. APAC was similar but less so. Japan, Korea, Singapore and India all had decent results, collectively ending at 7% for the year. We are very excited to see all of APAC returning back to normality, with the exception of India, which we expect will take a while longer to recover.

NEW PLATFORMS FOR ACCELERATED GROWTH

Last year we introduced our new cell and gene therapy platform and expanded our ExosomeDx business unit.

This year with COVID-19, we have pivoted over 150 employees, mostly technical, to create new solutions for analysis and testing for SARS-CoV-2. Our cell and gene therapy business is growing fast and we completed a joint venture this year that gives us a near complete workflow. The first significant revenue will start in 2021 with the opening of our new GMP factory in St. Paul, Minnesota. We expect to hit our estimates of high double-digit cell and gene therapy growth in the coming year and reach a level of revenue to warrant its own division status by 2025. Currently, GMP proteins are growing 100%+. Cloudz beads and B-MoGen's TcBuster technology use also continue to expand in trials and pre-clinicals. ExosomeDx will be expanding through further urologist reach, Medicare reimbursement via the NGS LCD granted last January, a new utility study conducted on 500 patients that will add credibility and secure more private payers, and finally, a newly launched home sample collection kit that is seeing incredible traction, especially during this COVID-19 lockdown for urologists. Furthermore, we are ready to conduct clinical studies on bladder cancer and kidney rejection tests, as well as two blood-based tests for lung and breast cancer. For these, we are soliciting partnerships.

Personalized medicine workflow associated with generating gene edited CAR-T cells and the various steps and technologies involved in the process, including how Bio-Techne products address the multiple processing steps.





Schematic overview of TcBuster mechanism of transposition. 1. TcB transposase mRNA and transposon DNA are introduced into the cell. 2. Protein from TcB mRNA is produced. 3. TcB transposase cuts the cargo from the transposon plasmid. 4. TcB transposase pastes the transposon cargo into the genomic DNA. 5. Cargo mRNA is stably expressed from the genomic DNA. This example illustrates stable expression of a receptor protein, such as a CAR.



RNAScope[™]

Reprogrammed T cells are screened for CAR gene expression GMP Proteins
ProDots[™]

CARs expressing T cells are expanded ex vivo



- Immunocytochemistry
- Flow Cytometry Antibodies

5

Expanded T cells are tested for CAR expression

COVID-19 SEROLOGY TEST

In May 2020, Bio-Techne and the Mount Sinai Health System in New York, through its commercial affiliate Kantaro Biosciences LLC (Kantaro), formed a partnership to initiate scaled manufacturing and distribution of testing kits for the Mount Sinaideveloped COVID-19 serology test. Kantaro Biosciences is a joint venture between Mount Sinai Health System ("Mount Sinai") and Renalytix AI (NASDAQ: RNLX) formed exclusively to ensure that diagnostic tests for critical health challenges are accessible to all. The Mount Sinai COVID-19 serology test was the first widely published serology test and has gained recognition as the gold standard to which subsequent tests have been compared. Kantaro has partnered with Bio-Techne for the scaleup, manufacture, sale and distribution of the tests.

Mount Sinai was issued an Emergency Use Authorization (EUA) from the U.S. Food and Drug Administration (FDA) for clinical testing in its CLIA certified laboratory on April 15th. Based on this success, Bio-Techne and Mount Sinai partnered to develop high-quality production test kits which can be manufactured and distributed globally at scale. Kantaro is leading the regulatory processes and recently applied for an EUA for a quantitative test as well as a similar EUA application for the Bio-Techne manufactured version of the kit. Kit shipments are expected to begin immediately following the receipt of FDA regulatory authorization.

The IgG antibody test kit, an enzyme-linked immunosorbent assay or ELISA, measures the presence or absence of anti-SARS-CoV-2 antibodies in addition to measuring the titer (level) of antibodies a person has produced. It utilizes not one but two virus antigens, the full-length Spike protein, and its Receptor Binding Domain, which is necessary for viral entry into cells, and is potentially linked with virus neutralization. Based on performance data for the Mount Sinai assay, and assuming a 5% incidence of COVID-19 in the test population, the test has a Positive Predictive Value (the probability of disease if the test is positive) of 100% and a Negative Predictive Value (the probability of no disease if the test is negative) of 99.6%. The test uses a simple patient blood draw and is easily run by any laboratory in the world without costly proprietary equipment. The technology underlying the diagnostic test was created by internationally recognized virology and pathology teams from the Icahn School of Medicine at Mount Sinai.



STRATEGIC DIRECTION

Our strategies remain unchanged from last year andthe year before. We rely on a balanced approach of product innovation, geographic expansion and M&A to continue and further accelerate our growth. In detail, our strategies are the following:

- Expand regionally with smaller "tuck-in" acquisitions.
- Invest further in GMP grade reagents, focusing on supporting the rapidly expanding immunotherapeutic markets. This includes GMP grade proteins, GMP grade recombinant antibodies, and cell expansion media, and other critical reagents.
- Expand our assay portfolio, including Simple Plex and other multiplex platforms, and obtain greater value from resellers that use our content in their own assay products.
- Expand in cancer diagnostics, leveraging the Advanced Cell Diagnostics and Exosome Diagnostics platforms as well as moving closer to therapeutic applications of gene edited cell therapy using efficient non-viral vector gene delivery, such as TcBuster, and Cloudz technology for optimal cellular activation in the areas of CAR T cell therapy.
- Acquire "new to the world" instrument technologies that can leverage our reagents and offer researchers full solutions.
- Acquire new talent and intellectual property to help the company with its next phase of accelerated growth.
- Inspire innovation within the company through scientific collaboration and support of key opinion leaders, expanding our intellectual property and product portfolios.
- Not a long-term strategy, but certainly for the next 2-3 years we will focus on commercializing best in class products and diagnostics to help the world eliminate COVID-19.



Rendering of our new GMP Manufacturing Facility

CORPORATE SUSTAINABILITY

As we look toward continued growth of our business in the future, we are guided by the opportunity, and what we believe is our responsibility, to support the discovery, development and delivery of life-changing science, and to do so in a sustainable, socially responsible manner. This commitment guides how we interact with our stakeholders, govern our company, and address our environmental and societal impact. While we have focused for years on integrating our purpose, culture and responsibility across all aspects of our business, we are for the first time this year reporting on those efforts in an initial Corporate Sustainability Report. It is available on our website. This inaugural Corporate Sustainability Report highlights the ways Bio-Techne is making a difference for our customers, shareholders, employees, and society overall.



GLOBAL FOOTPRINT

FISCAL YEAR ENDS: JUNE 30 FY 2020 REVENUES: \$739M FY 2020 ADJ. GROSS MARGIN: 70.3% FY 2020 ADJ. OP INC.: \$245.9M FY 2020 ADJUSTED EPS: \$4.55 FY 2020 MARKET CAP: ~\$10.0B











FINANCIAL PERFORMANCE IN FISCAL 2020

Prior to COVID-19 appearing on the scene in March, after nearly three quarters we were on track to have another year over 10% organic growth. We ended the third quarter with mid-single-digit growth, but the near complete shutdown of our academic market led to a negative high single-digit organic growth in the fourth quarter. We see things opening back up now and we see a brighter future in a year with the expectation of increased funding for research due to the widespread damage and fear that COVID-19 caused globally.

HIGHLIGHTS OF OUR FISCAL 2020 PERFORMANCE:

- Adjusted earnings were \$179 million, about 2% more than last year. Adjusted earnings per share were \$4.55, +1% over last year. Currency exchange impacted earnings per share negatively by \$0.04, or approximately 1%.
- Overall, revenue increased 3.5% to \$739 million. Organic revenue growth was 3.8% over the prior year, with currency translation and acquisitions contributing having an immaterial impact on growth.
- Adjusted operating margins for the year were 33%, about flat to last year due to the business impacts associated with the COVID-19 pandemic.
- Cash from operations was \$205 million for the year and we returned \$49 million to our shareholders in the form of dividends.

	Year Ended June 30,					
(In thousands, except per share data)	2020	2019	2018	2017	2016	
Net Sales	\$739M	\$714M	\$643M	\$563M	\$499M	
Adjusted net earnings ⁽¹⁾	\$179M	\$175M	\$173M	\$140M	\$134M	
Adjusted diluted earnings per share ⁽¹⁾	\$4.55	\$4.51	\$4.54	\$3.72	\$3.60	
Cash flow from operations	\$205M	\$182M	\$170M	\$143M	\$144M	

(1) Excludes intangible assets amortization, costs recognized upon the sale of inventory that was written-up to fair value as part of acquisitions, professional fees related to acquisition activity and the impact of certain tax events. See Item 7 of the Company's Annual Report on From 10-K, following, for further details

	Year Ended June 30,					
(In thousands)	2020	2019	2018	2017	2016	
Cash, cash equivalents and available-for-sale investments	\$271M	\$166M	\$182M	\$158M	\$96M	
Total assets	\$2,028M	\$1,884M	\$1,593M	\$1,558M	\$1,130M	
Long term dept obligations ⁽¹⁾	\$344M	\$502M	\$339M	\$347M	\$130M	
Stockholder's equity	\$1,381M	\$1,166M	\$1,079M	\$950M	\$879M	
Common shares outstanding	38,453M	37,934M	37,608M	37,356M	37,254M	

(1) Includes long-term contingent considerations payable.

NEW PRODUCTS

We had another great year for new products. We launched 283 new proteins, 1,594 new antibodies and 59 new assays as well as north of \$12MM in custom product development for Bio/Pharma. This is in light of pivoting a large part of our R&D organization towards COVID-19 new to the world products to assist in the elimination of the disease. Some of the new products we deployed in fiscal 2020 are:

- GMP-Grade Proteins (hFLT3L, hIL-21, hTPO, hBMP4)
- GMP-Grade Antibodies (hCD3, hCD28)
- GMP-Grade synthetic small molecules for Regenerative Medicine (CHIR, SB, XAV, Y-27632)
- Recombinant Proteins (hErbB2, hTNF-alpha, hPD-1, hDLL4, hDectin-1, CynoCD48, Cyno Klotho-beta, mIFN-alpha),
- Prodots (hIL-2, hIL-7, hIL-15)
- GMP-Grade T-Cell Expansion Products: Cloudz for Treg cells and ExCellerate media
- Small Molecules for Cellular Reprogramming and/or differentiation
- Cultrex Optimized Basal Membrane Extract (BME4)



• COVID-19 Specific Products:

- o Camelid Antibodies: Llama Ab to RBD
- o Quantitative Serology assay
- o Viral proteins (RBD, S1, N)
- o Host Proteins: hTMPRSS2, h,m,rACE2, h,m,CynoCD26)
- o Papain-Like Proteases (PLPro, 3CL)
- o Antibodies: (RBD, S1, N, E)
- o Neutralizing Antibodies
- o Antibody reference standards
- o Cytokine Storm Syndrome Assays on Ella (IL-1b, IL-6, IL-8 and TNF-a)
- o RNAscope viral transcripts expression probes for tissue analysis
- Gene-Edited T-Cells using non-viral TcBuster Vector
- Targeted Degradation Products (CUL2/RBX1, DDB1/DCAF16, Elongin B/C/VHL)
- Avitag (biotinylated) Proteins (hVEGF, huPAR, hCRACC, hSiglec-2)
- Empower driver for ProteinSimple Biologics Instruments
- Automated hIFN-gamma Western Blot assay on Jess
- RNAscope HiPlex assays for 12-plex RNA analysis
- RNAscope fluorescent multiplex assays

RUO Cloudz[~] Human T Cell Activation Kit

RDSYSTEMS Memeapole, M

DuoSet

Urine Collection Kit Exempt Human Specimen







simple

ProDots[®] GMP rhiL - 2 PRD207-GMP

RD SYSTEMS

Catalog PRD207-GMP 20 µg FOR PRECLINICAL OR CLINICAL EX VIVO USE

A NEW YEAR AHEAD WITH NEW OPPORTUNITIES

Our thesis, to become a \$1B+ revenue company with 40% operating margins and a product portfolio to be envied by many, remains intact. It's been a challenging year with COVID-19 but we will come out of it as a better and much stronger company. The world will change but life science research funding will likely increase and benefit our

company materially. Our 2,300+ employees are committed to the science and our customers like never before. I look forward to the coming year and all it promises to offer. I am very proud of our teams and their accomplishments this past year and I look forward to many more to come.

Charles Kummeth

BIO-TECHNE VS. S&P 500 INDEX



Overall, Bio-Techne outperformed the S&P 500 index over the five-year period from the end of fiscal 2015 to the end of fiscal 2020 We are proud of Bio-Techne's long-term record but, as always, past performance should not be interpreted as an indication of future performance.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-K

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

For the fiscal year ended June 30, 2020, or

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

For the transition period from _____ to ____

Commission file number 0-17272

BIO-TECHNE CORPORATION

(Exact name of registrant as specified in its charter)

Minnesota (State or other jurisdiction of incorporation or organization) 41-1427402 (I.R.S. Employer Identification No.)

614 McKinley Place N.E. Minneapolis, MN 55413 (Address of principal executive offices) (Zip Code)

(612) 379-8854 (Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:Title of each classTrading Symbol(s)Name of each exchange on which registeredCommon Stock, \$0.01 par valueTECHThe NASDAQ Stock Market LLC

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 \boxtimes 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 \square No \boxtimes

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes \boxtimes No \square

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 during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes \boxtimes No \square

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer \boxtimes

Non-accelerated filer \Box

Accelerated filer \Box

Smaller reporting company \Box

Emerging growth company \Box

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

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

As of December 31, 2019 the aggregate market value of the Common Stock held by non-affiliates of the Registrant was \$8.4 billion based upon the closing sale price as reported on The Nasdaq Stock Market (\$219.51 per share). Shares of Common Stock held by each officer and director and by each person who owns 5% or more of the outstanding Common Stock have been excluded.

As of August 21, 2020, 38,550,371 shares of the Company's Common Stock (\$0.01 par value) were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's Proxy Statement for its 2020 Annual Meeting of Shareholders are incorporated by reference into Part III.

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FORWARD-LOOKING INFORMATION AND CAUTIONARY STATEMENTS

Certain statements included or incorporated by reference in this Annual Report, in other documents we file with or furnish to the Securities and Exchange Commission ("SEC"), in our press releases, webcasts, conference calls, materials delivered to shareholders and other communications, are "forward-looking statements" within the meaning of the U.S. federal securities laws. All statements other than historical factual information are forward-looking statements, including, without limitation, projections of revenue, expenses, profit, profit margins, tax rates, tax provisions, cash flows, our liquidity position or other projected financial measures; product releases and strategy, acquisition plans or activity, the competitive environment and market position, currency fluctuation and exchange rates, capital expenditures, the performance of the Company's investments, future dividend declarations, the construction and lease of certain facilities, the adequacy of owned and leased property for future operations, future regulatory approvals and the timing and conditionality thereof, outstanding claims, legal proceedings and other contingent liabilities, the impact of the current COVID-19 pandemic on our operations or financial results and other statements that address events or developments that the Company intends or believes will or may occur in the future. Terminology such as "believe," "anticipate," "should," "could," "plan," "expect," "estimate," "potential," "forecast," and similar references to future periods are intended to identify forward-looking statements, although not all forward-looking statements are accompanied by such words.

All such forward-looking statements are intended to enjoy the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995, as amended. Although the Company believes there is a reasonable basis for the forward-looking statements, the Company's actual results could be materially different. These forward-looking statements are subject to a number of risks and uncertainties, including but not limited to the risks and uncertainties set forth in "Item 1 A. Risk Factors" in this Annual Report. Forward-looking statements speak only as of the date they are made, and the Company does not undertake any obligation to update any forward-looking statements except as required by law.

PART I

ITEM 1. BUSINESS

OVERVIEW

Bio-Techne and its subsidiaries, collectively doing business as Bio-Techne Corporation (Bio-Techne, we, our, us or the Company), develop, manufacture and sell life science reagents, instruments and services for the research, diagnostic, and bioprocessing markets worldwide. With our deep product portfolio and application expertise, we sell integral components of scientific investigations into biological processes and molecular diagnostics, revealing the nature, diagnosis, etiology and progression of specific diseases. Our products aid in drug discovery efforts and provide the means for accurate clinical tests and diagnoses.

During our fiscal year 2020, we operated under two operating segments – our Protein Sciences segment and our Diagnostics and Genomics segment. Our Protein Sciences segment is a leading developer and manufacturer of high-quality purified proteins and reagent solutions, most notably cytokines and growth factors, antibodies, immunoassays, biologically active small molecule compounds, tissue culture reagents and T-Cell activation technologies. This segment also includes protein analysis solutions that offer researchers efficient and streamlined options for automated western blot and multiplexed ELISA workflow. Our Diagnostics and Genomics segment develops and manufactures diagnostic products, including FDA-regulated controls, calibrators, blood gas and clinical chemistry controls and other reagents for OEM and clinical customers, as well as a portfolio of exosomal based molecular diagnostic assays, including the ExoDx®*Prostate(IntelliScore)* test (EPI) for prostate cancer diagnosis. This segment also manufactures and sells advanced tissue-based in-situ hybridization assays (ISH) for research and clinical use.

We are a Minnesota corporation with our global headquarters in Minneapolis, Minnesota. We were founded over forty years ago, in 1976, as Research and Diagnostic Systems, Inc. We became a publicly traded company in 1985 through a merger with Techne Corporation, now Bio-Techne Corporation. Our common stock is listed on the NASDAQ under the symbol "TECH." We operate globally, with offices in many locations throughout North America, Europe and Asia. Today, our product lines extend to over 300,000 products, most of which we manufacture ourselves in multiple locations in North America, as well as England and China.

Our historical focus was on providing high quality proteins, antibodies and immunoassays to the life science research market and hematology controls to the diagnostics market. Over the last seven years, we have been implementing a disciplined strategy to accelerate growth in part by acquiring businesses and product portfolios that leveraged and diversified our existing product lines, filled portfolio gaps with differentiated high growth businesses, and expanded our geographic scope. From fiscal years 2013

through 2020 we have acquired sixteen companies that have expanded the product offerings and geographic footprint of both operating segments. Recognizing the importance of an integrated, global approach to meeting our mission and accomplishing our strategies, we have maintained many of the brands of the companies we have acquired, but unified under a single global brand -- Bio-Techne.

OUR PRODUCTS AND MARKETS

In fiscal 2020, net sales from Bio-Techne's Protein Sciences and Diagnostics and Genomics segments represented 75% and 25% of consolidated net sales, respectively. Financial information relating to Bio-Techne's segments is incorporated herein by reference to Note 12 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Protein Sciences Segment

The Protein Sciences segment is comprised of divisions with complementary product offerings serving many of the same customers – the Reagent Solutions division and the Analytical Solutions division.

Protein Sciences Segment Products

The Reagent Solutions division consists of specialized proteins, such as cytokines and growth factors, antibodies, small molecules, tissue culture sera and cell selection technologies traditionally used by researchers to further their life science experimental activities and by companies developing next generation diagnostics and therapeutics, especially companies developing cell and gene-based therapeutics. Key product brands include R&D Systems, Tocris Biosciences, and Novus Biologicals. In 2019, we acquired Quad Technologies, which has novel Quickgel[™] technologies for cell separation and activation, and B-MoGen Technologies, which has a non-viral, transposon-based technology for gene editing called TcBuster, a key technology targeted for the cell and gene therapy market. We have now leveraged these and other products we have or are developing in combination with two additional companies, Wilson Wolf and Fresenius Kabi, to provide a more complete offering for the cell and gene therapy market. Our combined chemical and biological reagents portfolio provides high quality tools that customers can use in solving the complex biological pathways and glean knowledge that may lead to a more complete understanding of biological processes, and, ultimately, to the development of novel therapeutic strategies to address different pathologies.

The Analytical Solutions division includes manual and automated protein analysis instruments and immunoassays that are used in quantifying proteins in a variety of biological fluids. Products in this division include traditional manual plate-based immunoassays, fully automated multiplex immunoassays on various instrument platforms, and automated western blotting and isoelectric focusing analysis of complex protein samples. Key product brands include R&D Systems and ProteinSimple. A number of our products have been demonstrated to have the potential to serve as predictive biomarkers and therapeutic targets for a variety of human diseases and conditions including cancer, autoimmunity, diabetes, hypertension, obesity, inflammation, neurological disorders, and kidney failure. Immunoassays can also be useful in clinical diagnostics. In fact, we have received Food and Drug Administration (FDA) marketing clearance for a few of our immunoassays for use as *in vitro* diagnostic devices. Most recently, in collaboration with Mount Sinai Hospital and its commercial entity, Kantaro Biosciences, we relied on that expertise to rapidly develop and commercialize an immunoassay kit intended to test for antibodies to COVID-19.

Protein Sciences Segment Customers and Distribution Methods

Our customers for this segment include researchers in academia, government and industry (chiefly pharmaceutical and biotech companies), as well as diagnostic/companion diagnostic and therapeutic customers, especially customers engaged in the development of cell and gene based therapies. Our biologics line of products in the Analytical Solutions division is used primarily by production and quality control departments at biotech and pharmaceutical companies. We sell our products directly to customers who are primarily located in North America, Europe and China. We have a sales and marketing partnership agreement with Fisher Scientific that supports our market presence in North America and leverages the transactional efficiencies offered by the large Fisher organization. We also sell through third party distributors in China, Japan, certain eastern European countries and the rest of the world. Our sales are widely distributed, and no single end-user customer accounted for more than 10% of the Protein Sciences segment's net sales during fiscal 2020, 2019 or 2018.

Protein Sciences Segment Competitors

With respect to the Reagent Solutions division of this segment, a number of large companies supply the worldwide market for protein-related and chemically-based research and diagnostic reagents, including BD Biosciences, Merck KGaA/EMD Chemicals, Inc., PeproTech, Inc., Abcam plc., and Thermo Fisher Scientific, Inc, as well as a number of smaller, niche competitors. Market success is primarily dependent upon product innovation and quality, selection of products, price and reputation. We believe we are one of the leading world-wide suppliers of cytokine and growth factors in the research market. We further believe that the expansion of our product offering, the recognized quality of our products, and the ability to continue to bring novel, cutting edge products and solutions to the market will allow us to remain competitive in the growing biotechnology research, diagnostic, and therapeutics markets. Our Analytical Solutions division has a number of similar competitors. Our Simple Western platform is a complete

replacement for the traditional manual Western blotting technique. As a result, we face competition from the vendors that supply instruments and reagents to traditional Western blot users. These competitors include Bio-Rad Laboratories, Merck KGaA, PerkinElmer and Thermo Fisher Scientific. All of these vendors provide elements of the traditional work flow. Similarly, our SimplePlex platform replaces the traditional manual ELISA assay and introduces an automated multiplex immunoassay feature. Competitors include those who supply instruments and reagents for ELISAs, including Meso Scale Discovery, PerkinElmer, Thermo Fisher, Luminex, Millipore, Molecular Devices, Tecan BioTek, Quanterix and Bio-Rad Laboratories. The primary competitors for our Biologics instrumentation are Agilent Technologies, Danaher and PerkinElmer, as well as Shimadzu, Thermo Fisher and Waters. We believe our competitive position is strong due to the unique aspects of our products and our product quality.

Protein Sciences Segment Manufacturing

We are not dependent on key or sole source suppliers for most of our products in the Protein Sciences segment. We develop and manufacture the majority of our proteins using recombinant DNA technology, thus significantly reducing our reliance on outside resources. Our antibodies are produced using a variety of technologies including traditional animal immunization and hybridoma technology as well as recombinant antibody techniques. Our chemical-based small molecule products are synthesized from widely available products.

We manufacture our Analytical Solutions division instrumentation products for this segment at various locations in the United States and Canada. We manufacture our own components where we believe it adds significant value, but we rely on suppliers for the manufacture of some of the consumables, components, subassemblies and autosamplers used with, or included in, our systems, which are manufactured to our specifications. As with other products sold in this segment, we are not dependent on any one supplier and are not required to carry significant amounts of inventory to assure ourselves of a continuous allotment of goods from suppliers. We conduct all final testing and inspection of our products. We have established a quality control program, including a set of standard manufacturing and documentation procedures. All of our Protein Sciences Segment manufacturing sites are ISO 9001 or ISO 13485 certified or are in the process of being ISO certified.

The majority of our Reagent Solutions division products are shipped within one day of receipt of the customers' orders, while most of our Analytical Solutions products are shipped within one to two weeks of receipt of an order.

There was no significant backlog of orders for our Protein Sciences segment products as of the date of this Annual Report on Form 10-K or as of a comparable date for fiscal 2019.

Diagnostics and Genomics Segment

The Diagnostics and Genomics segment also includes two divisions focused primarily in the diagnostics market – the Diagnostics Reagents division and the Genomics division.

Diagnostics and Genomics Segment Products

The Diagnostic Reagents division consists of regulated products traditionally used as calibrators and controls in the clinical setting. Also included are instrument and process control products for hematology, blood chemistry, blood gases, coagulation controls and reagents used in various diagnostic applications. Often we manufacture these reagents on a custom basis, tailored to a customer's specific diagnostic assay technology. We supply these reagents in various formats including liquid, frozen, or in lyophilized form. Most of these products are sold on an Original Equipment Manufacturer (OEM) basis to instrument manufacturers with most products being FDA-cleared.

The Genomics division includes products aimed at nucleic acid (RNA or DNA) analysis that can be used for diagnostic or research applications. Key product brands include Advanced Cell Diagnostics, or ACD, and Exosome Diagnostics. ACD products are aimed at RNA analysis of tissue while Exosome Diagnostics focuses on exosome-based liquid biopsy techniques that analyze genes or their transcripts. The first commercialized test from Exosome Diagnostics is a urine-based assay for early detection of high-grade prostate cancer used as an aid in deciding the need for an initial biopsy.

Diagnostics and Genomics Segment Customers and Distribution Methods

The majority of Diagnostic Reagents Division's sales are through OEM agreements, but we sell some of our diagnostics reagents products directly to customers and, in Europe and Asia, also through distributors. The customers for the ACD research products include researchers in academia as well as investigators in pharmaceutical and biotech companies. We sell our products directly to those customers who are primarily located in North America, Europe and China, and through distributors elsewhere. In addition to being useful research tools, our RNA *in situ* hybridization assays have diagnostics applications as well, and several are currently under review by the FDA in partnership with diagnostics instrument manufacturers and pharmaceutical companies. In the United States, we offer test services to physicians using our lab-developed non-invasive urine-based assay for prostate cancer detection. Our diagnostic laboratory is certified under and regulated by the State of Massachusetts pursuant to the Clinical Laboratory Improvement Amendments, or CLIA. Customers are physicians prescribing such tests for their patients.

No customers accounted for 10% or more of the reporting segment's consolidated net sales during fiscal years 2020, 2019, or 2018.

Diagnostics and Genomics Segment Competitors

In the Diagnostics Reagents division, the competitors for our hematology controls product line include Danaher, Beckman Coulter and Streck. For our other control and calibrator products sold in this division, the principal competitors are Abbott Diagnostics, Beckman Coulter, Inc., Bio-Rad Laboratories, Inc., Siemens Healthcare Diagnostics Inc. and Sysmex Corporation. We compete based primarily on product performance, quality, and price in this division. SeraCare, HyTest Ltd and Thermo Fisher Scientific are additional competitors in the clinical diagnostic manufacturing and reagents markets.

Competitors in the Genomics division are varied, depending on the product line. While there are not any direct competitors for the RNA-based *in situ* hybridization products sold under the ACD brand, they are intended to be an alternative to immunohistochemistry assays and PCR-based diagnostic tests in certain circumstances. The non-invasive urine-based assay offered under our Exosome Diagnostics brand and used for prostate cancer biopsy decisions is supplemental to blood-based prostate-specific antigen (PSA) tests, and is competitive with some other companies that offer liquid biopsy-based alternatives such as 4kscore offered by Opko Health and SelectMDx offered by MDxHealth.

Diagnostics and Genomics Segment Manufacturing

The primary raw material for our hematology controls products is whole blood. We purchase human blood from commercial blood banks, and porcine and bovine blood from nearby meat processing plants. Although the cost of human blood has increased due to the requirement that it be tested for certain diseases and pathogens prior to use, the higher cost of these materials has not had a material adverse effect on our business thus far. Other controls are derived from various bodily fluids or cells from different animal species, which are then processed in-house to isolate the product of interest or from other bulk reagent suppliers that specialize in certain products. Our other reagent products are manufactured using a variety of suppliers, with no supplier representing a material portion of our business.

Most of the hematology controls products are shipped based on a preset, recurring schedule. However, most of our business in this segment come from large orders shipped based on our customers' needs; we are highly dependent on our customers' demand and inventory controls. Consequently, our revenues can vary significantly from quarter to quarter and year to year.

Our Genomics division products and services are all synthesized from widely available products. We typically have several outside sources for all critical raw materials necessary for the manufacture of our products in this division.

There was no significant backlog of orders for our Diagnostics and Genomics segment as of the date of this Annual Report on Form 10-K or as of a comparable date for fiscal 2019.

The following discussion includes information common to both of the Company's segments.

Geographic Information

Following is financial information relating to geographic areas (in thousands):

		Year E	Inded June 30,		2010
	 2020		2019		2018
Net sales:					
United States	\$ 404,407	\$	391,191	\$	346,293
EMEA, excluding U.K.	155,289		155,821		148,599
U.K.	30,411		34,975		33,704
APAC, excluding Greater China	60,362		52,913		48,392
Greater China	68,792		57,799		47,950
Rest of world	19,430		21,307		18,055
Total net sales	\$ 738,691	\$	714,006	\$	642,993
			Year ende 2020	d Jun	e 30, 2019
Long-lived assets:			2020		2017
North America		\$	162,039	\$	138,016
Europe		Ψ	13,120	Ψ	14,439
Asia			1,670		1,584
Total long-lived assets		\$	176,829	\$	154,039
Intangible assets:					
North America		\$	499,875	\$	556,951
Europe			12,349		16,637
Asia			4,321		5,841
Total intangible assets		\$	516,545	\$	579,429

Net sales are attributed to countries based on the location of the customer or distributor. Long-lived assets are comprised of land, buildings and improvements and equipment, net of accumulated depreciation. See the description of risks associated with the Company's foreign subsidiaries in Item 1A of this Annual Report on Form 10-K.

PRODUCTS UNDER DEVELOPMENT

Bio-Techne is engaged in continuous research and development in all of our major product lines. We believe that our future success depends, to a large extent, on our ability to keep pace with changing technologies and market needs. In response to the global pandemic that emerged in early 2020, we diverted some of our development resources to new and existing products to meet the needs associated with COVID-19, including a major effort by the development teams in our Protein Sciences Segment to develop a diagnostic immunoassay for testing antibodies to COVID-19. However, there is no assurance that any of the products in the research and development phase can be successfully completed or, if completed, can be successfully introduced into the marketplace.

	Year Ended June 30,			
	2020	2019	2018	
Research and development expense:				
Protein Sciences Segment	43,022	40,735	40,996	
Diagnostics & Genomics Segment	22,170	21,678	14,095	
Corporate	-	-	239	
Total research and development expense	\$ 65,192	\$ 62,413	\$ 55,329	
Percent of net sales	9%	9%	6 9%	

INTELLECTUAL PROPERTY

Our success depends in part upon our ability to protect our core technologies and intellectual property. To accomplish this, we rely on a combination of intellectual property rights, including patents, trade secrets and trademarks, as well as customary contractual protections.

As of June 30, 2020, we had rights to 258 granted patents and approximately 225 pending patent applications. In particular, products in the Analytical Solutions and Genomics divisions are protected primarily through pending patent applications and issued patents. In addition, certain of our products are covered by licenses from third parties to supplement our own patent portfolio. Patent protection, if granted, generally has a life of 20 years from the date of the patent application or patent grant. We cannot provide assurance that any of our pending patent applications will result in the grant of a patent, whether the examination process will require us to narrow our claims, and whether our claims will provide adequate coverage of our competitors' products or services.

In addition to pursuing patents on our products, we also preserve much of our innovation as trade secrets, particularly in the Reagent Solutions division of our Protein Sciences segment. We have taken steps to protect our intellectual property and proprietary technology, in part by entering into confidentiality agreements and intellectual property assignment agreements with our employees, consultants, corporate partners and, when needed, our advisors. See the description of risks associated with the Company's intellectual property in Item 1A of this Annual Report on form 10-K.

We can give no assurance that Bio-Techne's products do not infringe upon patents or proprietary rights owned or claimed by others. Bio-Techne has not conducted a patent infringement study for each of its products. Where we have been contacted by patent holders with certain intellectual property rights, Bio-Techne typically has entered into licensing agreements with patent holders under which it has the exclusive and/or non-exclusive right to use patented technology as well as the right to manufacture and sell certain patented products to the research and/or diagnostics markets.

Bio-Techne has obtained trademark registration in certain countries for certain of its brand and product names. Bio-Techne believes it has common law trademark rights to certain marks in addition to those which it has registered.

SEASONALITY OF BUSINESS

Bio-Techne believes there is some seasonality as a result of vacation and academic schedules of its worldwide customer base, particularly for the Protein Sciences segment. A majority of Diagnostics Reagents division products are manufactured in large bulk lots and sold on a schedule set by the customer. Consequently, sales for that segment can be unpredictable, and not necessarily based on seasonality. As a result, we can experience material and sometimes unpredictable fluctuations in our revenue from this segment.

LAWS AND REGULATIONS

Our operations, and some of the products we offer, are subject to a number of complex laws and regulations governing the production, marketing, handling, transportation and distribution of our products and services. The following sections describe certain significant regulations pertinent to the Company. These are not the only regulations that the Company's business. For a description of risks related to laws and regulations to which we are subject, refer to Item 1.A. Risk Factors."

Medical Device Regulations and Other Healthcare Laws.

A number of our products are classified as medical devices and are subject to restrictions under domestic and foreign laws, rules, regulations, self-regulatory codes and orders, including but not limited to the U.S. Food, Drug and Cosmetic Act (the "FDCA"). The FDCA requires these products, when sold in the United States, to be safe and effective for their intended uses and to comply with the regulations administered by the U.S. Food and Drug Administration ("FDA"). The FDA regulates the design, development, testing, manufacture, advertising, labeling, packaging, marketing, distribution, import and export and record keeping for such products. Many medical device products are also regulated by comparable agencies in non-U.S. countries in which they are produced or sold.

Any medical devices we manufacture and distribute are subject to pervasive and continuing regulation by the FDA and certain state and non-U.S. agencies. As a medical device manufacturer, our manufacturing facilities are subject to inspection on a routine basis by the FDA. We are required to adhere to the Current Good Manufacturing Practices ("CGMP") requirements, as set forth in the Quality Systems Regulation ("QSR"), which require manufacturers, including third-party manufacturers, to follow stringent design, testing, control, documentation and other quality assurance procedures during all phases of the design and manufacturing process.

We must also comply with post-market surveillance regulations, including medical device reporting, or MDR, requirements which require that we review and report to the FDA any incident in which our products may have caused or contributed to a death or serious injury. We must also report any incident in which our product has malfunctioned if that malfunction would likely cause or contribute to a death or serious injury it if were to recur.

Labeling and promotional activities are subject to scrutiny by the FDA and, in certain circumstances, by the Federal Trade Commission. Medical devices approved or cleared by the FDA may not be promoted for unapproved or uncleared uses, otherwise known as "off-label" promotion. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses.

In the European Union ("EU"), our products are subject to the medical device laws of the various member states, which are currently based on a Directive of the European Commission. However, the EU has adopted the EU Medical Device Regulation (the "EU MDR") and the In Vitro Diagnostic Regulation (the "EU IVDR"), each of which impose stricter requirements for the

marketing and sale of medical devices, including in the area of clinical evaluation requirements, quality systems and post-market surveillance. Manufacturers of currently approved medical devices had until May 2020 to meet the requirements of the EU MDR and until May 2022 to meet the EU IVDR. Complying with the EU MDR and EU IVDR requires modifications to our quality management systems, additional resources in certain functions and updates to technical files, among other changes.

One of our products under our Exosome Diagnostics brand is offered as a test under a CLIA-certified laboratory; consequently, we must comply with governmental regulations relating to all elements of our sales, marketing, billing practices and financial relationships with physicians, hospitals, and health systems.

Data Privacy and Security Laws

As a global organization, we are subject to data privacy and security laws, regulations, and customer-imposed controls in numerous jurisdictions as a result of having access to and processing confidential, personal and/or sensitive data in the course of our business. For example, in the United States, the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), privacy and security rules require certain of our operations to maintain controls to protect the availability and confidentiality of patient health information. Individual states also regulate data breach and security requirements and multiple governmental bodies assert authority over aspects of the protection of personal privacy. In particular, there is a new, broad privacy law in California, the California Consumer Privacy Act ("CCPA"), which came into effect in January 2020. The CCPA has some of the same features as the GDPR (discussed below), and has already prompted several other states to follow with similar laws. The EU General Data Protection Regulation that became effective in May 2018 ("GDPR") has imposed significantly stricter requirements in how we collect, transmit, process and retain personal data, including, among other things, in certain circumstances a requirement for almost immediate notice of data breaches to supervisory authorities and prompt notice to data subjects with significant fines for non-compliance. Several other countries such as China and Russia have passed, and other countries are considering passing, laws that require personal data relating to their citizens to be maintained on local servers and impose additional data transfer restrictions.

Other Laws and Regulations Governing Our Sales, Marketing and Shipping Activities.

We are subject to the U.S. Foreign Corrupt Practices Act and various other similar anti-corruption and anti-bribery acts, which are particularly relevant to our operations in countries where the customers are government entities or are controlled by government officials. Both we directly, and indirectly through our distributors, must comply with such laws when interacting with those entities.

As Bio-Techne's businesses also include export and import activities, we are subject to pertinent laws enforced by the U.S. Departments of Commerce, State and Treasury.

We are subject to laws and regulations governing government contracts, and failure to address these laws and regulations or comply with government contracts could harm our business by a reduction in revenue associated with these customers. We have agreements relating to the sale of our products 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, criminal, civil and administrative penalties or debarment.

EMPLOYEE RELATIONS

Through its subsidiaries, Bio-Techne employed approximately 2,300 full-time and part-time employees as of June 30, 2020. None of the United States employees are unionized. Outside the United States, the Company has government-mandated collective bargaining arrangements or work councils in certain countries.

INVESTOR INFORMATION

We are subject to the information requirements of the Securities Exchange Act of 1934 (the Exchange Act). Therefore, we file periodic reports, proxy statements, and other information with the Securities and Exchange Commission (SEC). The SEC maintains an internet site (http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically.

Financial and other information about us is available on our web site (<u>https://investors.bio-techne.com/</u>). We make available on our web site copies of our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13 or 15(d) of the Exchange Act as soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the SEC.

EXECUTIVE OFFICERS OF THE REGISTRANT

Currently, the names, ages, positions and periods of service of each executive officer of the Company are as follows:

Name	Age	Position	Officer Since
Charles Kummeth	60	President, Chief Executive Officer and Director	2013
James T. Hippel	49	Chief Financial Officer	2014
David Eansor	59	President, Protein Sciences	2014
Kim Kelderman	53	President, Diagnostics and Genomics	2018
Brenda Furlow	62	General Counsel and Corporate Secretary	2014

Set forth below is information regarding the business experience of each executive officer. There are no family relationships among any of the officers named, nor is there any arrangement or understanding pursuant to which any person was selected as an officer.

Charles Kummeth has been President and Chief Executive Officer of the Company since April 1, 2013. Prior to joining the Company, he served as President of Mass Spectrometry and Chromatography at Thermo Fisher Scientific Inc. from September 2011. He was President of that company's Laboratory Consumables Division from 2009 to September 2011. Prior to Thermo Fisher, Mr. Kummeth served in various roles at 3M Corporation, most recently as the Vice President of the company's Medical Division from 2006 to 2008.

James T. Hippel has been Chief Financial Officer of the Company since April 1, 2014. Prior to joining the Company, Mr. Hippel served as Senior Vice President and Chief Financial Officer for Mirion Technologies, Inc., a \$300 million global company that provides radiation detection and identification products. Prior to Mirion, Mr. Hippel served as Vice President, Finance at Thermo Fisher Scientific, Inc., leading finance operations for its Mass Spectrometry & Chromatography division and its Laboratory Consumables division. In addition, Mr. Hippel's experience includes nine years of progressive financial leadership at Honeywell International, within its Aerospace Segment. Mr. Hippel started his career with KPMG LLP.

David Eansor has been President of the Protein Sciences segment since July 1, 2018. Prior to that, he served as Senior Vice President, Biotechnology Division and as Senior Vice President, Novus Biologicals since the Company completed its acquisition of Novus on July 2, 2014. From January 2013 until the date of the acquisition, Mr. Eansor was the Senior Vice President of Corporate Development of Novus Biologicals. Prior to joining Novus Biologicals, Mr. Eansor was the President of the Bioscience Division of Thermo Fisher Scientific. Mr. Eansor was promoted to Division President in early 2010 after 5 years as President of Thermo Fisher's Life Science Research business.

Kim Kelderman joined Bio-Techne on April 30, 2018 as President, Diagnostics and Genomics. Prior to Bio-Techne, Mr. Kelderman was employed at Thermo Fisher Scientific where he led three different businesses of increasing scale and complexity. For the last three years, Mr. Kelderman managed the Platforms and Content of the Genetic Sciences Division, where he was responsible for the Instrumentation, Software, Consumables and Assays businesses, and brands such as Applied Biosystems and legacy Affymetrix. Before joining Thermo Fisher, Kim served as Senior Segment Leader at Becton Dickinson, managing the global Blood Tubes "Vacutainer" business.

Brenda Furlow joined the Company as General Counsel and Corporate Secretary on August 4, 2014. Prior to joining Bio-Techne, Ms. Furlow served as general counsel to emerging growth technology companies. Ms. Furlow was General Counsel for TomoTherapy, a global, publicly traded company that manufactured and sold radiation therapy equipment, from 2007 to 2011. From 1998 to 2007, Ms. Furlow served as General Counsel for Promega Corporation, a global life sciences company.

ITEM 1A. RISK FACTORS

Statements in this Annual Report on Form 10-K and elsewhere that are forward-looking involve risks and uncertainties which may affect the Company's actual results of operations. Certain of these risks and uncertainties, which have affected and, in the future, could affect the Company's actual results are discussed below. The Company undertakes no obligation to update or revise any forward-looking statements made due to new information or future events. Investors are cautioned not to place undue emphasis on these statements.

The following risk factors should be read carefully in connection with evaluation of the Company's business and any forward-looking statements made in this Annual Report on Form 10-K and elsewhere. See the section entitled "forward-looking statements" set forth above. Any of the following risks or others discussed in this Annual Report on Form 10-K or the Company's other SEC filings could materially adversely affect the Company's business, operating results and financial condition.

Conditions in the global economy, the particular markets we serve and the financial markets brought about by material global crises may adversely affect our business and financial statements.

COVID-19 is having, and will continue to have, an adverse impact on our employees, operations, supply chains, and sales and distribution systems, including as a result of impacts associated with protective health measures that we, other businesses and governments are taking. Many employers in our primary locations of business have closed partially or fully and required their employees to work from home or not work at all. While many businesses have re-opened as the pandemic eased in particular locations, a resurgence of COVID-19 cases in those geographies could continue to cause additional closures. These site closures have included our customers, which have caused and will continue to cause customers to delay or forego purchases of our products. During the pandemic, we have experienced, and will continue to experience, significant and unpredictable reductions or increases in demand for certain of our products. As the pandemic continues, we expect to experience lower than normal sales activities and customer orders in most of our businesses, and it remains uncertain what impact these declines will have on future sales and customer orders. While there has been some improvement in sales in the summer of 2020, there is no certainty that that improvement will continue, or how long the economic recovery will take as the pandemic eases. In addition to existing travel restrictions, countries may continue to close borders, impose prolonged quarantines, and further restrict travel, which may impact our ability to support our sites and customers in the future while also significantly limiting the ability of our products from moving through the supply chain. As a result, given the rapid and evolving nature of the virus, COVID-19 will continue to negatively affect our revenue growth, and it is uncertain how materially COVID-19 will affect our global operations, which generally will become more severe over an extended period of time. Any of these impacts would have an adverse effect on our business, financial condition and results of operations, and at this point, the extent of the impact of COVID-19 remains uncertain.

In recent months, we have introduced new products or modified existing products to serve the research and healthcare markets as they address the global pandemic through novel diagnostic and therapeutic products. The most significant of those new product launches, we believe, is the novel two-step serology assay that was developed based on and in collaboration with Mount Sinai Hospital System and its commercial entity, Kantaro Biosciences. In the first half of calendar year 2020 we allocated significant resources to that development. While we believe it is promising, the product only recently has been introduced commercially. There can be no assurance that it will be widely adopted or used, especially if the pandemic eases or a vaccine is commercialized. Alternatively, if demand is great, there is no assurance we will be able to maintain the personnel, raw materials, production facilities or other resources required to meet a significantly greater than anticipated need.

It may be difficult for us to implement our strategies for revenue growth in light of competitive challenges.

We face significant competition across many of our product lines. Competitors include companies ranging from start-up companies, which may be able to more quickly respond to customers' needs, to large multinational companies, which may have greater financial, marketing, operational, and research and development resources than the Company. In addition, consolidation trends in the pharmaceutical, biotechnology and diagnostics industries have served to create fewer customer accounts and to concentrate purchasing decisions for some customers, resulting in increased pricing pressure on the Company. Moreover, customers may believe that consolidated businesses are better able to compete as sole source vendors, and therefore prefer to purchase from such businesses. The entry into the market by manufacturers in China, India and other low-cost manufacturing locations is also creating increased pricing and competitive pressures, particularly in developing markets. Failure to anticipate and respond to competitors' actions may impact the Company's future sales and earnings.

To address this issue, we are pursuing a number of strategies to maintain and improve our revenue growth, including:

- strengthening our presence in selected geographic markets;
- allocating research and development funding to products with higher growth prospects;
- developing new applications for our technologies;
- continuing key opinion leader initiatives;
- finding new markets for our products;
- acquiring new products and business in growing or novel markets; and
- continuing the development of commercial tools and infrastructure to increase and support cross-selling opportunities of products and services to take advantage of our depth in product offerings.

We may not be able to successfully implement these strategies, and these strategies may not result in the expected growth of our business.

Our acquisition growth strategy poses financial, management and other risks and challenges.

We routinely explore acquiring other businesses and assets, and have completed sixteen acquisitions and several investments in the last eight years. However, we may be unable to identify or complete promising acquisitions for many reasons, including competition among buyers, the high valuations of businesses in our industry, the need for regulatory and other approvals, and availability of capital. There can be no assurance that we will engage in any additional acquisitions or that we will be able to do so on terms that will result in any expected benefits. In addition, acquisitions financed with borrowings could make us more vulnerable to business downturns and could negatively affect our earnings due to higher leverage and interest expense.

Our inability to complete acquisitions or to successfully integrate any new or previous acquisitions could have a material adverse effect on our business.

Our business strategy includes the acquisition of technologies and businesses that complement or augment our existing products and services. Certain acquisitions may be difficult to complete for a number of reasons, including the need for antitrust and/or other regulatory approvals. Any acquisition we may complete may be made at a substantial premium over the fair value of the net identifiable assets of the acquired company. When we do identify and consummate acquisitions, we may face financial, managerial and operational challenges, including diversion of management attention, integration of different corporate cultures, increased expenses, assumption of unknown liabilities, indemnities, potential disputes with the sellers, and the need to evaluate the financial systems of and establish internal controls for acquired entities. Further, we may not be able to integrate acquired businesses successfully into our existing businesses, make such businesses profitable, or realize anticipated cost savings or synergies, if any, from these acquisitions, which could adversely affect our overall businesses.

We may be required to record a significant charge to earnings if our goodwill and other amortizable intangible assets, or other investments become impaired.

We are required under generally accepted accounting principles to test goodwill for impairment at least annually and to review our goodwill, amortizable intangible assets, and other assets acquired through merger and acquisition activity, for impairment when events or changes in circumstance indicate the carrying value may not be recoverable. Factors that could lead to impairment of goodwill, amortizable intangible assets, and other assets acquired via acquisitions include significant adverse changes in the business climate and actual or projected operating results (affecting our company as a whole or affecting any particular segment) and declines in the financial condition of our business. We may be required in the future to record additional charges to earnings if our goodwill, amortizable intangible assets or other investments become impaired. Any such charge would adversely impact our financial results.

In addition, the Company's expansion strategies include collaborations and investments in joint ventures and companies developing new products related to the Company's business. These strategies carry risks that objectives will not be achieved and future earnings will be adversely affected. For example, the Company has an approximate 2% equity investment in publicly traded ChemoCentryx, Inc. (Nasdaq: CCXI) that is valued at \$87.8 million as of June 30, 2020. The ownership of CCXI shares is very concentrated, the share price is highly volatile and there is limited trading of the shares. In fiscal 2017, we also invested and held a minority interest in privately-held Astute Medical, Inc. (Astute), a diagnostics company developing new diagnostics tests relating to kidney injury. In fiscal 2018, Astute was acquired by a third party and we realized a \$16.2 million loss on our investment.

Significant developments or uncertainties stemming from the U.S. administration or resulting in potential changes resulting from the elections in the U.S. this fall, including changes in U.S. trade policies, tariffs, healthcare, taxes or other matters and the reaction of other countries thereto, could have an adverse effect on our business.

Changes, potential changes or uncertainties in U.S. social, political, regulatory and economic conditions or laws and policies governing foreign trade, manufacturing, and development and investment in the territories and countries where we or our customers operate, or governing the health care system, can adversely affect our business and financial statements. For example, the current U.S. administration has called for substantial changes to trade agreements and has over the last three years imposed significant increases on tariffs for goods imported into the United States, particularly from China. Other countries have responded similarly, with tariffs on goods entering their countries. The U.S. administration has also indicated an intention to ask Congress to make significant changes, replacement or elimination of the Patient Protection and Affordable Care Act, and government negotiation/regulation of drug prices paid by government programs.

Additionally, in a referendum vote held on June 23, 2016, the United Kingdom (UK) voted to leave the European Union (EU). This referendum has created political and economic uncertainty, particularly in the UK and the EU, and this uncertainty may last for years as the parties negotiate new trade agreements and governmental relationships. Our business could be affected during this period of uncertainty, and perhaps longer, by the impact of the UK's exit from the EU. In addition, our business could be negatively affected by new trade agreements between the UK and other countries, including the United States, and by the possible imposition of trade or other regulatory barriers in the UK. Any of these factors could adversely affect customer demand, our relationships with customers and suppliers, and our business and financial results, particularly since our European headquarters and shipping facilities are currently located in the UK. Additionally, attracting and retaining qualified employees who are citizens of EU countries to our UK facilities may be more difficult given the uncertainties resulting from the UK's withdrawal.

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

We compete in many markets in which we and our customers must comply with federal, state, local and international regulations, such as environmental, health and safety and food and drug regulations. We develop, configure and market our products to meet customer needs created by those regulations. Any significant change in regulations could reduce demand for our products or increase our expenses. For example, many of our instruments are marketed to the pharmaceutical industry for use in discovering and developing drugs. Changes in the U.S. Food and Drug Administration's regulation of the drug discovery and development process could have an adverse effect on the demand for these products.

We are subject to laws and regulations governing government contracts, and failure to address these laws and regulations or comply with government contracts could harm our business by leading to a reduction in revenue associated with these customers.

We have agreements relating to the sale of our products to government entities in the U.S. and elsewhere and, as a result, we are subject to various statutes and regulations that apply to companies doing business with the government. The laws governing government contracts differ from the laws governing private contracts and government contracts may contain pricing terms and conditions that are not applicable to private contracts. 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, criminal, civil and administrative penalties or debarment.

We are required to comply with a wide variety of laws and regulations, and are subject to regulation by various federal, state and foreign agencies.

We are subject to various local, state, federal, foreign and transnational laws and regulations, which include the operating and security standards of the U.S. Federal Drug Administration (the FDA), the U.S. Drug Enforcement Agency (the DEA), the U.S. Department of Health and Human Services (the DHHS), and other comparable agencies and, in the future, any changes to such laws and regulations could adversely affect us. In particular, we are subject to laws and regulations concerning current good manufacturing practices. Our subsidiaries may be required to register for permits and/or licenses with, and may be required to comply with the laws and regulations of, the DEA, the FDA, the DHHS, foreign agencies and/or comparable state agencies as well as certain accrediting bodies depending upon the type of operations and location of product distribution, manufacturing and sale. The manufacture, distribution and marketing of many of our products and services, including medical devices and pharma services, are subject to extensive ongoing regulation by the FDA, the DEA, and other equivalent local, state, federal and non-U.S. regulatory authorities. In addition, we are subject to inspections by these regulatory authorities. Failure by us or by our customers to comply with the requirements of these regulatory authorities, including without limitation, remediating any inspectional observations to the satisfaction of these regulatory authorities, could result in warning letters, product recalls or seizures, monetary sanctions, injunctions to halt manufacture and distribution, restrictions on our operations, civil or criminal sanctions, or withdrawal of existing or denial of pending approvals, including those relating to products or facilities. In addition, such a failure could expose us to contractual or product liability claims, contractual claims from our customers, including claims

for reimbursement for lost or damaged active pharmaceutical ingredients, as well as ongoing remediation and increased compliance costs, any or all of which could be significant. We are the sole manufacturer of a number of products for many of our customers and a negative regulatory event could impact our customers' ability to provide products to their customers.

We are also subject to a variety of federal, state, local and international laws and regulations that govern, among other things, the importation and exportation of products, the handling, transportation and manufacture of substances that could be classified as hazardous, and our business practices in the U.S. and abroad such as anti-corruption and anti-competition laws. Any noncompliance by us with applicable laws and regulations or the failure to maintain, renew or obtain necessary permits and licenses could result in criminal, civil and administrative penalties and could have an adverse effect on our results of operations.

We are subject to financial, operating, legal and compliance risk associated with global operations.

We engage in business globally, with approximately 45% of our sales revenue in fiscal 2020 coming from outside the U.S. In addition, one of our strategies is to expand geographically, particularly in China, India and in developing countries, both through distribution and through direct operations. This subjects us to a number of risks, including international economic, political, and labor conditions; currency fluctuations; tax laws (including U.S. taxes on foreign subsidiaries); increased financial accounting and reporting burdens and complexities; unexpected changes in, or impositions of, legislative or regulatory requirements; failure of laws to protect intellectual property rights adequately; inadequate local infrastructure and difficulties in managing and staffing international operations; delays resulting from difficulty in obtaining export licenses for certain technology; tariffs, quotas and other trade barriers and restrictions; transportation delays; operating in locations with a higher incidence of corruption and fraudulent business practices; and other factors beyond our control, including terrorism, war, natural disasters, climate change and diseases.

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

We continue to expand our operations in countries with developing economies, where it may be common to engage in business practices that are prohibited by U.S. regulations applicable to the Company, such as the Foreign Corrupt Practices Act. Although we implement policies and procedures designed to ensure compliance with these laws, there can be no assurance that all of our employees, contractors, and agents, as well as those companies to which we outsource certain aspects of our business operations, including those based in foreign countries where practices which violate such U.S. laws may be customary, will comply with our internal policies. Any such non-compliance, even if prohibited by our internal policies, could have an adverse effect on our business and result in significant fines or penalties.

Changes in economic conditions could negatively impact our revenues and earnings.

Our Protein Sciences segment products are sold primarily to research scientists at pharmaceutical and biotechnology companies and at university and government research institutions. In addition to the impacts described above relating to COVID-19, research and development spending by our customers and the availability of government research funding can fluctuate due to changes in available resources, mergers of pharmaceutical and biotechnology companies, spending priorities, general economic conditions and institutional and governmental budgetary policies. Our Genomics and Diagnostics segment products are intended primarily for the medical diagnostics market, which relies largely on government healthcare-related policies and funding. Changes in government reimbursement for certain diagnostic tests or reductions in overall healthcare spending could negatively impact us directly or our customers and, correspondingly, our sales to them. Several years ago, the U.S. and global economies experienced a period of economic downturn and have been slow to recover in some parts of the world. Such downturns, and other reductions or delays in governmental funding, could cause customers to delay or forego purchases of our products. We carry essentially no backlog of orders and changes in the level of orders received and filled daily can cause fluctuations in quarterly revenues and earnings.

Management could fail to maintain effective internal controls over financial reporting which could harm our operating results or cause us to fail to meet our reporting obligations.

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting, as defined in Rule 13a-15(f) under the Securities Exchange Act. A material weakness is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. As we continue to grow and acquire additional business, we may fail to implement effective internal controls for our recently acquired operations that may result in a material weakness. Additionally, we may experience a breakdown in internal controls over

our existing businesses that would prevent the timely identification of a material misstatement in our interim or annual financial statements. A material weakness may also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common shares.

Our success will be dependent on recruiting and retaining highly qualified personnel and creating a new culture that includes the employees joining through acquisition.

Recruiting and retaining qualified scientific, production, sales and marketing, and management personnel are critical to our success. Our anticipated growth and its expected expansion into areas and activities requiring additional expertise will require the addition of new personnel and the development of additional expertise by existing personnel. We also operate in several geographic locations where competition for talent is strong, making employee retention particularly challenging. For example, some of our fastest growing businesses are located in northern California and eastern Massachusetts, both of which generally have low unemployment and a competitive environment for finding and retaining talent. Our growth by acquisition also creates challenges in retaining employees. As we integrate past and future acquisitions and evolve our corporate culture to incorporate the new workforces, some employees may not find such integration or cultural changes appealing. The failure to attract and retain such personnel could adversely affect our business.

Cyber security risks and the failure to maintain the confidentiality, integrity, and availability of our computer hardware, software, and internet applications and related tools and functions, could result in damage to our reputation, data integrity and/or subject us to costs, fines, or lawsuits under data privacy or other laws or contractual requirements.

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

If we are unable to maintain reliable information technology systems and appropriate controls with respect to global data privacy and security requirements and prevent data breaches, we may suffer regulatory consequences in addition to business consequences. As a global organization, we are subject to data privacy and security laws, regulations, and customer-imposed controls in numerous jurisdictions as a result of having access to and processing confidential, personal and/or sensitive data in the course of our business. For example, in the United States, individual states regulate data breach and security requirements and multiple governmental bodies assert authority over aspects of the protection of personal privacy. Most notably, last year the state of California passed sweeping privacy legislation called the California Consumer Privacy Act, or CCPA that has impacted our business and could result in more material impacts as implementing regulations are issued. European laws require us to have an approved legal mechanism to transfer personal data out of Europe, and the recently-enacted EU General Data Protection Regulation, which took effect in May 2018, imposes significantly stricter requirements in how we collect and process personal data. Several countries, such as China and Russia, have passed laws that require personal data relating to their citizens to be maintained on local servers and impose additional data transfer restrictions. Government enforcement actions can be costly and interrupt the regular operation of our business, and data breaches or violations of data privacy laws can result in fines, reputational damage and civil lawsuits, any of which may adversely affect our business, reputation and financial statements.

We are dependent on maintaining our intellectual property rights.

Our success depends in part on our ability to protect and maintain our intellectual property, including trade secrets. If we fail to protect our intellectual property, third parties may be able to compete more effectively against us, we may lose our technological or competitive advantage, or we may incur substantial litigation costs in our attempts to recover or restrict use of our intellectual property. We attempt to protect trade secrets in part through confidentiality agreements, but those agreements can be breached, and if they are, there may not be an adequate remedy. If trade secrets become publicly known, we could lose our competitive position.

We also attempt to protect and maintain intellectual property through the patent process. As of June 30, 2020, we owned or exclusively licensed over 515 granted patents and pending patent applications. We cannot be confident that any of our currently pending or future patent applications will result in granted patents, and we cannot predict how long it will take for such patents to be granted. It is possible that, if patents are granted to us, others will design around our patented technologies. Further, other parties may challenge any patents granted to us and courts or regulatory agencies may hold our patents to be invalid or unenforceable. We may not be successful in defending challenges made against our patents and patent applications. Any

successful third-party challenge to our patents could result in the unenforceability or invalidity of such patents. Our ability to establish or maintain a technological or competitive advantage over our competitors may be diminished because of these uncertainties. To the extent our intellectual property offers inadequate protection, or is found to be invalid or unenforceable, we would be exposed to a greater risk of direct competition. If our intellectual property does not provide adequate coverage of our competitors' products, our competitive position could be adversely affected, as could our business. Both the patent application process and the process of managing patent disputes can be time consuming and expensive.

We may be involved in disputes to determine the scope, coverage and validity of others' proprietary rights, or to defend against third-party claims of intellectual property infringement, any of which could be time-intensive and costly and may adversely impact our business.

Our success depends in part on its ability to operate without infringing the proprietary rights of others, and to obtain licenses where necessary or appropriate. We have obtained and continue to negotiate licenses to produce a number of products claimed to be owned by others. Since we have not conducted a patent infringement study for each of our products, it is possible that some of our products may unintentionally infringe patents of third parties.

We have been and may in the future be sued by third parties alleging that we are infringing their intellectual property rights. These lawsuits are expensive, take significant time, and divert management's focus from other business concerns. If we are found to be infringing the intellectual property of others, we could be required to cease certain activities, alter our products or processes or pay licensing fees. This could cause unexpected costs and delays which may have a material adverse effect on us. If we are unable to obtain a required license on acceptable terms, or unable to design around any third party patent, we may be unable to sell some of our products and services, which could result in reduced revenue. In addition, if we do not prevail, a court may find damages or award other remedies in favor of the opposing party in any of these suits, which may adversely affect our earnings.

Our ExoDx *Prostate(IntelliScore)*, or EPI test, may not receive or maintain government or private reimbursement coverage for clinical laboratory testing as planned, which may have a material adverse effect upon the revenue and profits for this product line.

In August 2018, we acquired Exosome Diagnostics, which sells the ExoDx Prostate or EPI test, a non-invasive urine test that predicts the aggressiveness of prostate cancer. We received public payer coverage for certain uses, but are currently seeking expanded coverage from public payors as well as coverage decisions regarding reimbursement from additional private payers. However, the process and timeline for obtaining coverage decisions is uncertain and difficult to predict. Moreover, federal and state government payers, such as Medicare and Medicaid, as well as insurers, including managed care organizations, continue to increase their efforts to control the cost, utilization and delivery of healthcare services. From time to time, Congress considers and implements changes in Medicare fee schedules affecting reimbursement rates in conjunction with budgetary legislation. Further, reimbursement reductions due to changes in policy regarding coverage of tests or other requirements for payment (such as prior authorization, diagnosis code and other claims edits, or a physician or qualified practitioner's signature on test requisitions) may be implemented from time to time. Still further, changes in third-party payer regulations, policies, or laboratory benefit or utilization management programs, as well as actions by federal and state agencies regulating insurance, including healthcare exchanges, or changes in other laws, regulations, or policies, may have a material adverse effect on revenue and earnings associated with Exosome Diagnostics' ExoDx Prostate test.

The Company could face significant monetary damages and penalties and/or exclusion from government programs if its Exosome Diagnostics' EPI business violates federal, state, local or international laws including, but not limited to, anti-fraud and abuse laws.

As a healthcare provider, the Company's Exosome Diagnostics' ExoDx Prostate business is subject to extensive regulation at the federal, state, and local levels in the U.S. and other countries where it operates. The Company's failure to meet governmental requirements under these regulations, including those relating to billing practices and financial relationships with physicians, hospitals, and health systems, could lead to civil and criminal penalties, exclusion from participation in Medicare and Medicaid, and possibly prohibitions or restrictions on the use of its laboratories. While the Company believes that it is in material compliance with all statutory and regulatory requirements, there is a risk that government authorities might take a contrary position. Such occurrences, regardless of their outcome, could damage the Company's reputation and adversely affect important business relationships it has with third parties.

The Company's Exosome Diagnostics ExoDx Prostate business could be harmed from the loss or suspension of a license or imposition of a fine or penalties under, or future changes in, or interpretations of, the law or regulations of the Clinical Laboratory Improvement Act of 1967, and the Clinical Laboratory Improvement Amendments of 1988 (CLIA), or those of Medicare, Medicaid or government agencies where the Company operates its laboratory.

The commercial laboratory testing industry is subject to extensive U.S. regulation, and many of these statutes and regulations have not been interpreted by the courts. CLIA extends federal oversight to virtually all clinical laboratories operating in the U.S. by requiring that they be certified by the federal government or by a federally approved accreditation agency. The sanction for failure to comply with CLIA requirements may be suspension, revocation or limitation of a laboratory's CLIA certificate, which is necessary to conduct business, as well as significant fines and/or criminal penalties. In addition, the Company's ExoDx Prostate business is subject to regulation under state law. State laws may require that laboratories and/or laboratory personnel meet certain qualifications, specify certain quality controls or require maintenance of certain records. Applicable statutes and regulations could be interpreted or applied by a prosecutorial, regulatory or judicial authority in a manner that would adversely affect the Company's ExoDx Prosate business. Potential sanctions for violation of these statutes and regulations include significant fines and the suspension or loss of various licenses, certificates and authorizations, which could have a material adverse effect on the Company's EPI business. In addition, compliance with future legislation could impose additional requirements on the Company, which may be costly.

Failure to comply with privacy and security laws and regulations could result in fines, penalties and damage to the Company's reputation and have a material adverse effect upon the Company's business, a risk that has been elevated with the acquisition of Exosome Diagnostics, whose laboratory testing service is a healthcare provider that obtains and uses protected health information.

If the Company does not comply with existing or new laws and regulations related to protecting the privacy and security of personal or health information, it could be subject to monetary fines, civil penalties or criminal sanctions. In the U.S., the Health Insurance Portability and Accountability Act of 1996 (HIPAA) privacy and security regulations, including the expanded requirements under U.S. Health Information Technology for Economic and Clinical Health Act (HITECH), establish comprehensive standards with respect to the use and disclosure of protected health information (PHI) by covered entities, in addition to setting standards to protect the confidentiality, integrity and security of PHI. HIPAA restricts the Company's ability to use or disclose PHI, without patient authorization, for purposes other than payment, treatment or healthcare operations (as defined by HIPAA), except for disclosures for various public policy purposes and other permitted purposes outlined in the privacy regulations. If the laboratory operations for the Company's business use or disclose PHI improperly under these privacy regulations, they may incur significant fines and other penalties for wrongful use or disclosure of PHI in violation of the privacy and security regulations, including potential civil and criminal fines and penalties.

The Company relies heavily on internal manufacturing and related operations to produce, package and distribute its products which, if disrupted, could materially impair our business operations.

The Company's internal quality control, packaging and distribution operations support the majority of the Company's sales. Since certain Company products must comply with Food and Drug Administration Quality System Regulations and because in all instances, the Company creates value for its customers through the development of high-quality products, any significant decline in quality or disruption of operations for any reason could adversely affect sales and customer relationships, and therefore adversely affect the business. While the Company has taken certain steps to manage these operational risks, and while insurance coverage may reimburse, in whole or in part, for losses related to such disruptions, the Company's future sales growth and earnings may be adversely affected by perceived disruption risks or actual disruptions.

Our business could be adversely affected by disruptions at our sites.

We rely upon our manufacturing operations to produce many of the products we sell and our warehouse facilities to store products, pending sale. Any significant disruption of those operations for any reason, such as strikes or other labor unrest, power interruptions, fire, hurricanes or other events beyond our control could adversely affect our sales and customer relationships and therefore adversely affect our business. We have significant operations in California, near major earthquake faults, which make us susceptible to earthquake risk. Although most of our raw materials are available from a number of potential suppliers, our operations also depend upon our ability to obtain raw materials at reasonable prices. If we are unable to obtain the materials we need at a reasonable price, we may not be able to produce certain of our products or we may not be able to produce certain of these products at a marketable price, which could have an adverse effect on our results of operations.

Fluctuations in our effective tax rate may adversely affect our results of operations and cash flows.

As a global company, we are subject to taxation in numerous countries, states and other jurisdictions. In particular, we are affected by the impact of changes to tax laws or related authoritative interpretations in the United States, including tax reform under the Tax Cuts and Jobs Act (the "Tax Act") signed by the President of the United States on December 22, 2017, which includes broad and complex changes to the United States tax code and the states' tax response to the Tax Act. The Company anticipates changes in interpretations, assumptions and guidance regarding the Tax Act to be issued by the U.S. Treasury Department, which could have a material impact on our effective tax rate in future periods.

In preparing our financial statements, we record the amount of tax that is payable in each of the countries, states and other jurisdictions in which we operate. Our future effective tax rate, however, may be lower or higher than experienced in the past due to numerous factors, including a change in the mix of our profitability from country to country, changes in accounting for income taxes and recently enacted and future changes in tax laws in jurisdictions in which we operate. Any of these factors could cause us to experience an effective tax rate significantly different from previous periods or our current expectations, which could have an adverse effect on our business, results of operations and cash flows.

Because we rely heavily on third-party package-delivery services, a significant disruption in these services or significant increases in prices may disrupt 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 companies, such as FedEx in the U.S. and DHL in Europe. If one or more of these third-party package-delivery providers were to experience a major work stoppage, preventing our products from being delivered in a timely fashion or causing us to incur additional shipping costs we could not pass on to our customers, our costs could increase and our relationships with certain of our customers could be adversely affected. In addition, if one or more of these third-party package-delivery providers were to increase prices, and we were not able to find comparable alternatives or make adjustments in our delivery network, our profitability could be adversely affected.

As a multinational corporation, we are exposed to fluctuations in currency exchange rates, which could adversely affect our cash flows and results of operations.

International markets contribute a substantial portion of our revenues, and we intend to continue expanding our presence in these regions. The exposure to fluctuations in currency exchange rates takes on different forms. International revenues and costs are subject to the risk that fluctuations in exchange rates could adversely affect our reported revenues and profitability when translated into U.S. dollars for financial reporting purposes. These fluctuations could also adversely affect the demand for products and services provided by us. As a multinational corporation, our businesses occasionally invoice third-party customers in currency relative to the functional currency could adversely impact our cash flows and our results of operations. As our international sales grow, exposure to fluctuations in currency exchange rates could have a larger effect on our financial results. In fiscal 2020, currency translation had an unfavorable effect of \$5.2 million on revenues due to the strengthening of the U.S. dollar relative to other currencies in which the company sells products and services.

We have entered into and drawn on a revolving credit facility. The burden of this additional debt could adversely affect us, make us more vulnerable to adverse economic or industry conditions, and prevent us from funding our expansion strategy.

In connection with the acquisition of Exosome Diagnostics on August 1, 2018, we used a new credit facility governed by a Credit Agreement entered into on July 28, 2018. The Credit Agreement provides for a revolving credit facility of \$600 million, which can be increased by an additional \$200 million subject to certain conditions, and a term loan of \$250 million. Borrowings under the Credit Agreement bear interest at a variable rate. As of August 21, 2020, the Company had drawn \$337 million under the Credit Agreement.

The terms of the Credit Agreement and the burden of the indebtedness incurred thereunder could have negative consequences for us, such as:

- limiting our ability to obtain additional financing to fund our working capital, capital expenditures, debt service requirements, expansion strategy, or other needs;
- increasing our vulnerability to, and reducing our flexibility in planning for, adverse changes in economic, industry and competitive conditions; and
- increasing our vulnerability to increases in interest rates.

The Credit Agreement also contains negative covenants that limit our ability to engage in specified types of transactions. These covenants limit our ability to, among other things, sell, lease or transfer any properties or assets, with certain exceptions; and enter into certain merger, consolidation or other reorganization transactions, with certain exceptions.

A breach of any of these covenants could result in an event of default under our credit facility. Upon the occurrence of an event of default, the lender could elect to declare all amounts outstanding under such facility to be immediately due and payable and terminate all commitments to extend further credit. In addition, the Company would be subject to additional restrictions if an event of default exists under the Credit Agreement, such as a prohibition on the payment of cash dividends.

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; and
- changes in global financial markets and global economies and general market conditions, such as interest or foreign exchange rates, commodity and equity prices and the value of financial assets.

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

For over 10 years, our Board has consistently declared quarterly dividends of \$0.25 to \$0.32 cents per share. 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

There are no unresolved staff comments as of the date of this report.

ITEM 2. PROPERTIES

The Company owns the facilities that its headquarters and R&D Systems subsidiary occupy in Minneapolis, Minnesota. The Minneapolis facilities are utilized by both the Company's Protein Sciences and Diagnostics and Genomics segments.

The Minneapolis complex includes approximately 800,000 square feet of space in several adjoining buildings. Bio-Techne uses approximately 625,000 square feet of the complex for administrative, research, manufacturing, shipping and warehousing activities. The Company is currently leasing the remaining space in the complex as retail and office space. The Company also owns a 54,000 square foot facility in Saint Paul, Minnesota that will be utilized for additional manufacturing capabilities and activities.

The Company also owns a 34,000 square foot manufacturing facility in Flowery Branch, Georgia. This facility is utilized by the Company's Protein Sciences.

The Company owns a 17,000 square foot facility that its Bio-Techne Europe subsidiary occupies in Abingdon, England. This facility is utilized by the Company's Protein Sciences and Diagnostics and Genomics segments.

The Company owns a 9,000 square foot facility that its Canada subsidiaries occupy in Toronto, Canada. This facility is utilized by the Company's Protein Sciences and Diagnostics and Genomics segments.

The Company leases the following material facilities, all of which are primarily utilized by the Company's Protein Sciences segment with the exception of the locations used by the Company's ProteinSimple and CyVek subsidiaries, which support both the Protein Sciences segment and the Diagnostics & Genomics segment). Certain locations are not named because they were not significant individually or in the aggregate as of the date of this report.

Subsidiary	Location	Туре	Square Feet
Bio-Techne Europe	Langley, United Kingdom	Warehouse	14,300
Bio-Techne China	Shanghai and Beijing, China	Office/warehouse	9,300
Boston Biochem	Cambridge, Massachusetts	Office/lab	7,400
Tocris	Bristol, United Kingdom	Office/manufacturing/lab/warehouse	30,000
PrimeGene	Shanghai, China	Office/manufacturing/lab	20,600
Bionostics	Devens, Massachusetts	Office/manufacturing	48,000
Novus Biologicals	Centennial, Colorado	Office/warehouse	22,500
ProteinSimple	San Jose, California	Office/manufacturing/warehouse	167,000
CyVek	Wallingford, Connecticut	Office/manufacturing/warehouse	17,500
Cliniqa	San Marcos, California	Office/manufacturing/warehouse	62,200
Advanced Cell Diagnostics	Newark, California	Office/manufacturing/warehouse	46,500
Bio-Techne France	Rennes, France	Office/warehouse	11,000
Exosome Diagnostics	Waltham, Massachusetts	Office/manufacturing/warehouse	28,000

The Company believes the owned and leased properties are adequate to meet its occupancy needs in the foreseeable future.

ITEM 3. LEGAL PROCEEDINGS

As of August 26, 2020, the Company is not a party to any legal proceedings that, individually or in the aggregate, are reasonably expected to have a material adverse effect on the Company's business, results of operations, financial condition or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.
PART II

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Holders of Common Stock and Dividends Paid

As of August 21, 2020 there were over 55,000 beneficial shareholders of the Company's common stock and over 125 shareholders of record. The Company paid annual cash dividends totaling \$48.9 million, \$48.4 million, and \$48.0 million in fiscal 2020, 2019, and 2018, respectively. The Board of Directors periodically considers the payment of cash dividends, and there is no guarantee that the Company will pay comparable cash dividends, or any cash dividends, in the future.

In connection with the acquisition of Exosome Diagnostics, Inc. on August 1, 2018, the Company entered into a new credit facility that provides for a revolving credit facility of \$600 million, which can be increased by an additional \$200 million subject to certain conditions, and a term loan of \$250 million. The credit facility is governed by a Credit Agreement dated August 1, 2018 and matures on August 1, 2023. The Credit Agreement that governs the revolving line of credit contains customary events of default and would prohibit payment of dividends to Company shareholders in the event of a default thereunder.

Issuer Purchases of Equity Securities

During the years ended June 30, 2020 and June 30, 2019, the Company repurchased 279,381 shares of its common stock at an average share price of \$179.37 and 95,000 shares at an average share price of \$162.15, respectively. As of June 30, 2018, the maximum approximate dollar value of shares that could have been purchased under the Company's then existing stock repurchase plan was approximately \$125 million, with no specified end period. During fiscal 2019, the Board rescinded the existing stock repurchase plan and implemented a new repurchase plan, which grants management the discretion to mitigate the dilutive effect of stock option exercises by authorizing repurchase of shares up to the amount of stock returned to the corporation through stock option exercises, beginning with those option exercises occurring in fiscal year 2018. As of June 30, 2020, we have authorization of approximately \$58 million that may yet be used to purchase additional shares under our current stock repurchase program.

Stock Performance Graph

The following chart compares the cumulative total shareholder return on the Company's common stock with the S&P Midcap 400 Index and the S&P 400 MidCap Life Sciences Tools and Services Index. The comparison assumes \$100 was invested on the last trading day before July 1, 2015 in the Company's common stock and in each of the foregoing indices and assumes reinvestment of dividends.



*\$100 invested on 6/30/15 in stock or index, including reinvestment of dividends. Fiscal year ending June 30.

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ITEM 6. SELECTED FINANCIAL DATA

(dollars in thousands, except per share data)

Income and Share Data:	. —	2020		2019(1)		2018(2)		2017(3)		2016(4)
Net sales	\$	738,691	\$	714,006	\$	642,993	\$	563,003	\$	499,023
Operating income	•	157,419	•	146,719	•	136,178	•	120,584	•	150,593
Earnings before income taxes (5)		276,477		112,015		125,952		111,961		147,481
Net earnings		229,296		96,072		126,150		76,086		104,476
Diluted earnings per share		5.82		2.47		3.31		2.03		2.80
Average common and common equivalent shares -										
diluted (in thousands)		39,401		38,892		38,055		37,500		37,326
Balance Sheet Data as of June 30:	. —	2020		2019		2018		2017		2016
Cash, cash equivalents and short-term available-										
for-sale investments	\$	270,893	\$	166,033	\$	181,754	\$	157,714	\$	95,835
Working capital		414,252		310,622		318,856		212,503		199,744
Total assets		2,027,589		1,884,410		1,593,202		1,558,219		1,129,581
Total shareholders' equity		1,381,192		1,165,589		1,079,061		949,627		879,280
Cash Flow Data:		2020		2019		2018		2017		2016
Net cash provided by operating activities	\$	205,217	\$	181,619	\$	170,367	\$	143,721	\$	144,157
Capital expenditures (6)	*	51,744	*	25,411	+	20,934	*	15,179	*	16,898
Cash dividends declared per share		1.28		1.28		1.28		1.28		1.28
Employee Data as of June 30:	. —	2020		2019	_	2018		2017		2016
Employees		2,300		2,255		1,943		1,789		1,560

(1) The Company acquired Quad Technologies on July 2, 2018, Exosome Diagnostics on August 1, 2018 and B-Mogen on June 4, 2019.

- (2) The Company acquired Trevigen on September 5, 2017, Atlanta Biologicals on January 2, 2018, and Eurocell Diagnostics on February 1, 2018.
- (3) The Company acquired Space on July 1, 2016, and Advanced Cell Diagnostics on August 1, 2016.
- (4) The Company acquired Cliniqa on July 8, 2015, and Zephyrus on March 21, 2016.
- (5) Earnings before income taxes included acquisition related expenses related to amortization of intangibles, costs recognized on sale of acquired inventories and professional fees associated with acquisition activity, as follows: 2020 \$61.7 million; 2019 \$64.9 million; 2018 \$74.2 million; 2017 \$73.2 million; 2016 \$37.6 million. Earnings before income taxes also include a gain on investment of \$137.5 million in fiscal 2020 and a \$12.4 million loss in fiscal 2019.
- (6) Increase in fiscal 2020 capital expenditures due to investments in new buildings, in particular, the Company's CGMP manufacturing facility.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following management discussion and analysis ("MD&A") provides information that we believe is useful in understanding our operating results, cash flows and financial condition. We provide quantitative information about the material sales drivers including the effect of acquisitions and changes in foreign currency at the corporate and segment level. We also provide quantitative information about discrete tax items and other significant factors we believe are useful for understanding our results. The MD&A should be read in conjunction with the consolidated financial information and related notes included in this Form 10-K. This discussion contains various "Non-GAAP Financial Measures" and also contains various "Forward-Looking Statements" within the meaning of the Private Securities Litigation Reform Act of 1995. We refer readers to the statements entitled "Non-GAAP Financial Measures" located at the end of this MD&A and "Forward-Looking Information and Cautionary Statements" and "Risk Factors" within Items 1 and 1A of this Form 10-K.

OVERVIEW

Bio-Techne develops, manufactures and sells life science reagents, instruments and services for the research and clinical diagnostic markets worldwide. With our deep product portfolio and application expertise, we sell integral components of scientific investigations into biological processes and molecular diagnostics, revealing the nature, diagnosis, etiology and progression of specific diseases. Our products aid in drug discovery efforts and provide the means for accurate clinical tests and diagnoses.

During our fiscal year 2020, we operated with two operating segments – our Protein Sciences segment and our Diagnostics and Genomics segment. Our Protein Sciences segment is a leading developer and manufacturer of high-quality purified proteins and reagent solutions, most notably cytokines and growth factors, antibodies, immunoassays, biologically active small molecule compounds, tissue culture reagents and T-Cell activation technologies. This segment also includes protein analysis solutions that offer researchers efficient and streamlined options for automated western blot and multiplexed ELISA workflow. Our Genomics and Diagnostics segment develops and manufactures diagnostic products, including FDA-regulated controls, calibrators, blood gas and clinical chemistry controls and other reagents for OEM and clinical customers, as well as a portfolio of clinical molecular diagnostic oncology assays, including the ExoDx®*Prostate(IntelliScore)* test (EPI) for prostate cancer diagnosis. This segment also manufactures and sells advanced tissue-based in-situ hybridization assays (ISH) for research and clinical use.

OVERALL RESULTS

Operational Update

For fiscal 2020, consolidated net sales increased 4% as compared to fiscal 2019. Organic growth was 4%, with currency translation and acquisitions having an immaterial impact on revenue. The Company experienced broad-based organic revenue growth in most major geographic regions and end-markets prior to the onset of the COVID-19 pandemic. This broad-based organic growth was partially offset by the negative impacts associated with the COVID-19 pandemic experienced by the Company in the latter half of fiscal year 2020, as further described in the *COVID-19 Business Update* section.

For fiscal 2020, consolidated earnings increased 139% compared to fiscal 2019. The increase in earnings was primarily due to a gain of approximately \$137 million on our ChemoCentryx investment and a gain of approximately \$7 million on the settlement of the escrow balance associated with the Exosome acquisition. After adjusting for acquisition related costs, stock-based compensation, and certain income tax items in both years, adjusted net earnings increased 2% in fiscal 2020 as compared to fiscal 2019. Adjusted earnings growth was driven by volume leverage, which was partially offset by business impacts associated with the COVID-19 pandemic.

For fiscal 2019, consolidated net sales increased 11% as compared to fiscal 2018. Organic growth for the year was 10% with currency translation having an unfavorable impact of 1% and acquisitions contributing 2%. The organic growth was broad-based with double digit organic growth in the United States, high single digit organic growth in Europe, and over 25% organic growth in China.

Consolidated GAAP net earnings decreased 24% for fiscal 2019 as compared to fiscal 2018. After adjusting for acquisition related costs, stock-based compensation, and certain income tax items in both years, adjusted net earnings increased 2% in fiscal 2019 as compared to fiscal 2018. Adjusted earnings growth was driven by volume leverage, which was partially offset by negative margin acquisitions.

COVID-19 Business Update

COVID-19 negatively impacted fiscal year 2020 sales growth due to the numerous customer site shutdowns in our academia and bio-pharma end-markets that occurred at the end of our third fiscal quarter and continued through our fourth quarter. Customer site

shutdowns will continue to have a negative impact on sales while they remain in effect, but we did experience an increase in the number of customer sites that were open at the end of the fourth quarter. However, we are unable to forecast the impact of customer site closures given the uncertainty that some customer sites may close again due to increases in COVID-19 cases occurring in their region and over the duration of the COVID-19 pandemic. Once the pandemic has eased, we anticipate a positive long-term outlook for sales growth resulting from expected future funding increases within life-science research in response to the current pandemic.

The Company has responded to the pandemic by leveraging our deep product portfolio and scientific expertise to develop robust COVID-19 product and service offerings providing critical support for both clinical care and therapeutic development. The Company's ongoing efforts to utilize our portfolio of products and services to enable solutions for this evolving pandemic may partially offset the impact of our customer site closures.

Adjusted EPS was negatively impacted by COVID-19 primarily due to the sales impacts described above. We anticipate the shortand long-term impacts of COVID-19 on adjusted EPS to be similar to that of sales growth.

The Company remains in a strong financial position with sufficient available cash as well as access to additional funding if necessary, through our long-term debt agreement. We did not experience any material changes to our June 30, 2020 Balance Sheet resulting from COVID-19 for items such as additional reserves or asset impairments resulting from the pandemic.

The Company remains fully operational as we abide by local COVID-19 safety regulations across the world. To achieve this, the Company has certain employees working remotely and has adopted significant protective measures for our employees on site, including staggered shifts, social distancing and hygiene best practices recommended by the Centers for Disease Control (CDC) and local public health officials. In addition, the Company has taken additional steps to monitor and strengthen our supply chain to maintain an uninterrupted supply of our critical products and services.

RESULTS OF OPERATIONS

Net Sales

Consolidated organic net sales exclude the impact of net sales contributed by companies acquired during the fiscal year and the effect of the change from the prior year in exchange rates used to convert sales in foreign currencies (primarily the euro, British pound sterling, and Chinese yuan) into U.S. dollars.

Consolidated net sales growth was as follows:

	Year Ended June 30,						
	2020	2019	2018				
Organic sales growth	4%	10%	9%				
Acquisitions sales growth	0%	2%	3%				
Impact of foreign currency fluctuations	0%	(1)%	2%				
Consolidated net sales growth	4%	11%	14%				

Consolidated net sales by segment were as follows (in thousands):

	Year Ended June 30,						
	2020			2019		2018	
Protein Sciences	\$	555,352	\$	543,159	\$	482,378	
Diagnostics and Genomics		184,549		171,674		161,151	
Intersegment		(1,210)		(827)		(536)	
Consolidated net sales	\$	738,691	\$	714,006	\$	642,993	

In fiscal 2020, Protein Sciences segment net sales increased 2% compared to fiscal 2019. Organic growth for the segment was 3% for the fiscal year, with foreign currency translation having an unfavorable impact of 1%, and acquisitions contributing an immaterial amount.

Overall segment growth was driven by strong Bio-Pharma sales in North America and strong overall performance in China, which was partially offset by the disruption in research markets due to numerous customer site closures relating to the COVID-19 pandemic that occurred in the second half of fiscal 2020.

In fiscal 2020, Diagnostics and Genomics segment net sales increased 8% compared to fiscal 2019. Organic growth was 8% with acquisitions and foreign currency having an immaterial impact on revenue.

Overall segment revenue growth was driven by strong performance in our ExoDx Prostate Test, *RNA scope*, hematology, and assay development products lines prior to the onset of the COVID-19 pandemic. The closure of academic site labs and limitation of non-essential medical procedures resulting from the COVID-19 pandemic significantly impacted sales of our *RNA scope* product line and our ExoDx Prostate Test, respectively, in the latter portion of the fiscal year. These negative sales impacts were partially offset through growth in supplying specialty diagnostic antibodies and other raw materials to COVID-19 testing manufacturers.

In fiscal 2019, Protein Sciences segment net sales increased 13% compared to fiscal 2018. Organic growth for the segment was 13% for the fiscal year, with acquisitions contributing 2% and foreign currency translation having an unfavorable impact of 2%. Growth was broad-based and especially strong in the antibodies and cell therapy consumables as well as the Simple Western and Simple Plex instrument product categories.

In fiscal 2019, the Diagnostics and Genomics segment net sales increased 7% compared to fiscal 2018. Organic growth for the segment was 4% with acquisitions contributing 3%. Growth in this segment was primarily driven by strong *RNA scope* product sales.

Gross Margins

Consolidated gross margins were 65.4%, 66.3%, and 67.2% in fiscal 2020, 2019, and 2018. Consolidated gross margins were negatively impacted as a result of purchase accounting related to inventory in fiscal 2019 and 2018 and intangible assets acquired during fiscal 2020, 2019, and 2018. Under purchase accounting, inventory is valued at fair value less expected selling and marketing costs, resulting in reduced margins in future periods as the inventory is sold. Excluding the impact of acquired inventory sold, amortization of intangibles, and stock compensation expense, adjusted gross margins were 70.3%, 71.5%, and 71.5% in fiscal 2020, 2019, and 2018 respectively. Fiscal 2020 adjusted gross margin was negatively impacted by product mix when compared to fiscal 2019 and fiscal 2018.

A reconciliation of the reported consolidated gross margin percentages, adjusted for acquired inventory sold and intangible amortization included in cost of sales, is as follows:

	Year Ended June 30,						
	2020	2019	2018				
Consolidated gross margin percentage	65.4%	66.3%	67.2%				
Identified adjustments:							
Costs recognized upon sale of acquired inventory	-%	0.5%	0.4%				
Amortization of intangibles	4.7%	4.7%	3.9%				
Stock compensation expense - COGS	0.2%	- 1/0	-%				
Non-GAAP adjusted gross margin percentage	70.3%	71.5%	71.5%				

Fluctuations in adjusted gross margins, as a percentage of net sales, have primarily resulted from changes in foreign currency exchange rates and changes in product mix. We expect that, in the future, gross margins will continue to be impacted by the mix of our portfolio growing at different rates as well as future acquisitions.

Management uses adjusted operating results to monitor and evaluate performance of the Company's two segments. Segment gross margins, as a percentage of net sales, were as follows:

	Year Ended June 30,						
	2020	2019	2018				
Protein Sciences Diagnostics and Genomics	75.0% 55.6%	76.8% 54.4%	76.8% 55.7%				

The small decrease in the Protein Sciences segment's gross margin percentage for fiscal 2020 as compared to fiscal 2019 and 2018 was primarily attributable to mix of product sales within the segment.

The increase in Diagnostics and Genomics in gross margin for fiscal 2020 was primarily due to volume leverage, operational productivity, and revenue growth against a similar cost base in recent acquisitions. The decrease in the Diagnostics and Genomics gross margin percentages for fiscal 2019 as compared to fiscal 2018 were due to negative gross margins for acquisitions made in the segment, namely ExosomeDx.

Selling, General and Administrative Expenses

Selling, general and administrative expenses decreased \$3.8 million (1%) in fiscal 2020 when compared to fiscal 2019. Selling, general, and administrative expenses decreased primarily due to a reduction in corporate expenses and a gain resulting from a settlement of amounts held in escrow from the ExosomeDx acquisition between the Company and the former shareholders. These reductions to our selling, general, and administrative expenses were partially offset by an increase in expense within the segments.

Selling, general and administrative expense increased \$23.7 million (10%) in fiscal 2019 when compared to fiscal 2018. The increase was primarily driven by an additional cost base from our fiscal 2019 acquisitions, additional stock-based compensation expense, and additional amortization expense associated with intangible assets recorded from our fiscal 2019 acquisitions. These increases were partially offset by a reduction in acquisition related expenses.

Consolidated selling, general and administrative expenses were composed of the following (in thousands):

	Year Ended June 30,					
		2020		2019		2018
Protein Sciences Diagnostics and Genomics	\$	138,792 65,407	\$	135,513 61,646	\$	119,649 40,255
Total segment expenses		204,199		197,159		159,904
Amortization of intangibles		26,358		25,210		21,650
Acquisition related expenses		415		2,282		24,429
Gain on escrow litigation		(7,159)		-		-
Restructuring costs		87		-		376
Stock-based compensation		32,667		33,057		28,240
Corporate selling, general and administrative expenses		4,016		6,651		6,037
Total selling, general and administrative expenses	\$	260,583	\$	264,359	\$	240,636

Research and Development Expenses

Research and development expenses increased \$2.8 million (4%) and \$7.1 million (13%) in fiscal 2020 and 2019, respectively, as compared to prior year periods. The increase in research and development expenses in fiscal 2020 as compared to fiscal 2019 was primarily attributable to continued investment in future growth platforms of the Company, recent acquisitions, and the development of new COVID-19 products. The increase in research and development expense in fiscal 2019 as compared to fiscal 2018 was primarily attributable to our ExosomeDx acquisition.

	Year Ended June 30,						
		2020		2019		2018	
Protein Sciences	\$	43,022	\$	40,735	\$	40,996	
Diagnostics and Genomics		22,170		21,678		14,095	
Total segment expenses		65,192		62,413		55,091	
Unallocated corporate expenses		-		-	_	238	
Total research and development expenses	\$	65,192	\$	62,413	\$	55,329	

Net Interest Income / (Expense)

Net interest income/(expense) for fiscal 2020, 2019, and 2018 was \$(18.6) million, \$(21.1) million, and \$(9.8) million, respectively. Net interest expense in fiscal 2020 decreased when compared to fiscal 2019 due to a reduction in our average long-term debt. Net interest expense increased in fiscal 2019 when compared to fiscal 2018 due to an increase in our average long-term debt, resulting from the debt agreement the Company entered into in conjunction with our ExosomeDx acquisition.

Other Non-Operating Expense, Net

Other non-operating expense, net, consists of foreign currency transaction gains and losses, rental income, building expenses related to rental property and the Company's gains and losses on investments as follows (in thousands):

	Year Ended June 30,							
		2020	2019	2018				
Foreign currency gains (losses)	\$	1,703 \$	(455) \$	(227)				
Rental income		1,140	1,141	1,177				
Real estate taxes, depreciation and utilities		(1,915)	(1,897)	(1,803)				
Gain (loss) on investment		137,508	(12,370)	397				
Miscellaneous (expense) income		(786)	13	(9)				
Other non-operating income (expense), net	\$	137,650 \$	(13,568) \$	(447)				

During fiscal 2020, the Company recognized gains of \$137.5 million related to changes in fair value associated with changes in the stock price of our ChemoCentryx, Inc. (CCXI) investment.

During fiscal 2019, the Company recognized losses of \$16.1 million related to changes in fair value associated with changes in the stock price of our ChemoCentryx, Inc. (CCXI) investment, which were partially offset by a \$3.7 million gain realized upon acquisition from our historical investment in B-MoGen.

During the third quarter of fiscal 2018, the Company recognized a \$16.2 million impairment on the write-down of its investment in Astute Medical, Inc. (Astute) in anticipation of the amount of cash to be received upon completion of the sale of Astute to a third party. The Astute sale closed in the fourth quarter of fiscal 2018 at the anticipated amount. This loss was offset by a \$16.1 million gain on the sale of a portion of the Company's investment in ChemoCentryx, Inc. (CCXI) and a \$0.5 million gain on the sale of investment property in the fourth quarter of fiscal 2018. These gains and losses are included in other income (expense) in the accompanying Consolidated Statements of Earnings and Comprehensive Income.

Income Taxes

Income taxes for fiscal 2020, 2019, and 2018 were at effective rates of 17.1%, 14.2%, and (0.2)%, respectively, of consolidated earnings before income taxes. The change in the effective tax rate was driven by discrete tax items. The Company's discrete tax benefits in fiscal 2020 primarily related to share-based compensation excess tax benefits of \$17.7 million. The Company's discrete tax benefits in fiscal 2019 primarily related to share-based compensation excess tax benefits of \$7.2 million, \$3.2 million related to deductible acquisition payments made to employees and third parties, and \$2.0 million for tax refunds relating to certain state apportionments. In fiscal 2018, the Company recognized net discrete tax benefits of \$34.4 million. The primary driver in fiscal 2018 discrete tax benefits was a discrete net tax benefit of \$33.0 million related to the Tax Act (as described in Note 11). Also impacting the Company's fiscal 2018 effective tax rate was a \$2.2 million tax benefit related to share-based compensation excess tax benefit related to share-based compensation excess tax benefit related to the tax and the tax and the tax benefits of \$4.2 million tax benefit related to the revaluation of contingent consideration, which is not a tax deductible expense.

Net Earnings

Non-GAAP adjusted consolidated net earnings are as follows (in thousands):

	Year Ended June 30,					
		2020		2019		2018
Net earnings	\$	229,296	\$	96,072	\$	126,150
Identified adjustments:						
Costs recognized upon sale of acquired inventory		-		3,739		2,455
Amortization of intangibles		60,865		58,550		46,983
Acquisition related expenses		793		2,656		24.774
Gain on escrow settlement		(7,170)		-		-
Restructuring costs		87		-		376
Stock-based compensation		34,262		33,057		28,240
(Gain) loss on investment and other		(136,716)		12,370		(397)
Tax impact of above adjustments		17,324		(18,323)		(21,625)
Tax impact of discrete tax items and other foreign adjustments		(19,423)		(12,665)		(34,360)
Non-GAAP adjusted net earnings	\$	179,318	\$	175,456	\$	172,596
Non-GAAP adjusted net earnings growth		2%	⁄0	2%		24%

Depending on the nature of discrete tax items, our reported tax rate may not be consistent on a period to period basis. The Company independently calculates a non-GAAP adjusted tax rate considering the impact of discrete items and jurisdictional mix of the identified non-GAAP adjustments. The following table summarizes the reported GAAP tax rate and the effective Non-GAAP adjusted tax rate for the periods ended June 30, 2020, 2019, and 2018.

	Year	Year Ended June 30,						
	2020	2019	2018					
Reported GAAP tax rate	17.1%	14.2%	(0.2)%					
Tax rate impact of:								
Identified non-GAAP adjustments	(2.5)	(4.3)	(2.7)					
Discrete tax items	7.0	11.2	27.3					
Non-GAAP adjusted tax rate	21.6%	21.1%	24.4					

The difference between the reported GAAP tax rate and non-GAAP tax rate applied to the identified non-GAAP adjustments for the fiscal years ended June 30, 2020 and June 30, 2019 is primarily a result of discrete tax items. Refer to Note 11 for additional discussion relating to the change in discrete tax items between fiscal 2020 and fiscal 2019.

The difference between the reported GAAP tax rate and non-GAAP tax rate applied to the identified non-GAAP adjustments for the fiscal year ended June 30, 2018 is due primarily to recording the items attributable to the new tax legislation in the U.S. which resulted in a \$33.0 million tax benefit. Offsetting this benefit is the impact of the revaluation of contingent consideration which is not tax deductible. For the fiscal year ended June 30, 2018, the Company recorded acquisition related expense of \$20.1 million related to the change in fair value of contingent consideration.

LIQUIDITY AND CAPITAL RESOURCES

Cash, cash equivalents and available-for-sale investments at June 30, 2020 were \$270.9 million compared to \$166.0 million at June 30, 2019. Included in available-for-sale investments at June 30, 2020 and June 30, 2019 was the fair value of the Company's investment in CCXI of \$87.8 million and \$38.2 million, respectively.

At June 30, 2020, approximately 23% of the Company's cash and equivalent account balances of \$146.6 million were located in the U.S., with the remainder located in primarily in Canada, China, the U.K. and other European countries.

At June 30, 2020, approximately 71% of the Company's available-for-sale investment account balances of \$124.3 million were located in the U.S., with the remaining 29% in China.

The Company has either paid U.S. taxes on its undistributed foreign earnings or intends to indefinitely reinvest the undistributed earnings in the foreign operations or expects the earnings will be remitted in a tax neutral transaction. Management of the Company expects to be able to meet its cash and working capital requirements for operations, facility expansion, capital additions, and cash dividends for the foreseeable future, and at least the next 12 months, through currently available funds, including funds available through our line-of-credit and cash generated from operations.

During fiscal 2019, the Company acquired QT Holdings Corporation (Quad), Exosome Diagnostics, Inc. (Exosome), and the outstanding shares of our B-MoGen investment for approximately \$20 million plus \$51 million in potential contingent consideration, approximately \$250 million plus \$325 million in potential contingent consideration, and \$17 million plus \$38 million in potential contingent consideration, respectively. In connection with the acquisition of Exosome Diagnostics on August 1, 2018, the Company entered into a new credit facility governed by a Credit Agreement entered into on August 1, 2018 that matures on August 1, 2023. The Credit Agreement provides for a revolving credit facility of \$600 million, which can be increased by an additional \$200 million subject to certain conditions, and a term loan of \$250 million. Borrowings under the Credit Agreement bear interest at a variable rate.

During fiscal 2018, the Company acquired Trevigen, Atlanta Biologicals and Eurocell Diagnostics for approximately \$10.6 million, \$51.3 million and \$7.3 million, respectively. The acquisitions were financed through a combination of cash on hand and our revolving line of credit facility.

Future acquisition strategies may or may not require additional borrowings under the line-of-credit facility or other outside sources of funding.

Cash Flows From Operating Activities

The Company generated cash from operations of \$205.2 million, \$181.6 million, and \$170.4 million in fiscal 2020, 2019, and 2018 respectively. The increase in cash generated from operating activities in fiscal 2020 as compared to fiscal 2019 was mainly a result of higher GAAP earnings and lower accounts receivable balances in fiscal 2020, which were partially offset by the gain on investments included within earnings. The increase in cash generated from operating activities in fiscal 2019 as compared to fiscal 2018 was mainly the result of higher depreciation and amortization and adjustments to available-for-sale securities included with our GAAP earnings, partially offset by a reduction in GAAP earnings.

Cash Flows From Investing Activities

We continue to make investments in our business, including capital expenditures. The Company did not make any acquisitions in fiscal 2020. Net cash paid for acquisitions of Quad, Exosome, and B-MoGen was \$289.5 million in fiscal 2019, a substantial increase from the net cash paid of \$67.9 million for the Trevigen, Atlanta Biologicals and Eurocell Diagnostics acquisitions in fiscal 2018.

The Company's net proceeds (outflow) from the purchase, sale and maturity of available-for-sale investments in fiscal 2020, 2019, and 2018 were \$76.9 million, (\$21.9 million), and \$27.8 million, respectively. The increase in fiscal 2020 compared to fiscal 2019 was driven by the sale of a portion of the Company's investment in CCXI in fiscal 2020. The decrease in fiscal 2019 as compared to fiscal 2018 was driven by the sale of a portion of the Company's investment in CCXI in fiscal 2018 and additional purchases of bonds in fiscal 2019. The Company's investment policy is to place excess cash in certificates of deposit with the objective of obtaining the highest possible return while minimizing risk and keeping the funds accessible.

Capital additions in fiscal year 2020, 2019, and 2018 were \$51.7 million, \$25.4 million, and \$20.9 million. Increase in fiscal 2020 capital expenditures due to investments in new buildings, in particular, the Company's cGMP manufacturing facility. Capital additions planned for fiscal 2021 are approximately \$45 million and are expected to be financed through currently available cash and cash generated from operations.

Cash Flows From Financing Activities

In fiscal 2020, 2019, and 2018, the Company paid cash dividends of \$48.9 million, \$48.4 million, \$48.0 million, respectively. The Board of Directors periodically considers the payment of cash dividends.

The Company received \$71.0 million, \$38.0 million, \$19.2 million, for the exercise of options for 56,000, 382,000, 204,000 shares of common stock in fiscal 2020, 2019 and 2018, respectively.

During fiscal 2020, the Company drew \$40 million under its revolving line-of-credit facility and made repayments on its line-of-credit of \$188.5 million.

During fiscal 2019, the Company drew \$580.0 million under its revolving line-of-credit facility to fund its acquisition of Quad, Exosome, and B-MoGen and made repayments on its line-of-credit of \$413.5 million.

During fiscal 2018, the Company drew \$55.0 million under its revolving line-of-credit facility to fund its acquisition of Atlanta Biologicals and made repayments on its line-of-credit of \$59.5 million.

During fiscal 2020, the Company made \$4.4 million (\$4 million for Quad and \$0.4 million for B-MoGen) in cash payments towards the Quad, Exosome, and B-MoGen contingent consideration liabilities. Of the \$4.4 million in total payments, \$3.4 million is classified as financing on the statement of cash flows. The remaining \$1 million is recorded as operating on the statement of cash flows as it represents the consideration liability that exceeds the amount of the contingent consideration liability recognized at the acquisition date.

During fiscal 2019, the Company made no cash payments towards the Quad, Exosome, and B-MoGen contingent consideration liabilities.

During fiscal 2018, the Company made \$88.5 million (\$50 million for ACD, \$35 million for CyVek, and \$3.5 million for Zephyrus) in cash payments towards the ACD, CyVek and Zephyrus contingent consideration liabilities. Of the \$88.5 million in total payments, \$61.9 million is classified as financing on the statement of cash flows. The remaining \$26.6 million is recorded as operating on the statement of cash flows as it represents the consideration liability that exceeds the amount of the contingent consideration liability recognized at the acquisition date.

In accordance with the terms of the purchase agreement, during fiscal 2019, the Company made the final payment of \$1.4 million related to Eurocell. In accordance with the terms of the purchase agreement, during the first quarter of fiscal 2018, the Company made the final \$2.3 million payment for the Space acquisition. These payments were included within other financing activities.

During fiscal 2020 and 2019, the Company repurchased \$50.1 million and \$15.4 million, respectively in share repurchases included as a cash outflow within Financing Activities. The Company did not repurchase any shares in fiscal 2018.

OFF-BALANCE SHEET ARRANGEMENTS

The Company is not a party to any off-balance sheet transactions, arrangements or obligations that have, or are reasonably likely to have, a current or future material effect on the Company's financial condition, changes in the financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

CONTRACTUAL OBLIGATIONS

The following table summarizes the Company's contractual obligations and commercial commitments as of June 30, 2020 (in thousands):

		Payments Due by Period							
		L	ess than		1-2		3-4		After
	Total		l Year		Years		Years		5 Years
Long-term debt	\$ 356,743		12,500		25,000		319,243		-
Lease obligations	\$ 93,021	\$	12,590	\$	23,409	\$	19,706	\$	37,316
Total contractual obligations	\$ 449,764	\$	20,090	\$	48,409	\$	338,949	\$	37,316

The interest rate on the Company's long-term debt is calculated as the sum of LIBOR plus an applicable margin. The applicable margin is determined for the total leverage ratio of the Company and updated on a quarterly basis. The Company also has a derivative instrument related to our debt, which converts the variable interest rate payment of the debt to fixed interest payments as disclosed Note 5. Additionally, there is an annualized fee for any unused portion of the credit facility which is currently 15 basis points as further described in Note 6.

CRITICAL ACCOUNTING POLICIES

Management's discussion and analysis of the Company's financial condition and results of operations are based upon the Company's Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). The preparation of these financial statements requires management 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, management evaluates its estimates. Management 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 under different assumptions or conditions.

The Company has identified the policies outlined below as critical to its business operations and an understanding of results of operations. The listing is not intended to be a comprehensive list of all accounting policies; investors should also refer to Note 1 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Business Combinations

We allocate the purchase price of acquired businesses to the estimated fair values of the assets acquired and liabilities assumed as of the date of the acquisition. The calculations used to determine the fair value of the long-lived assets acquired, primarily intangible assets, can be complex and require significant judgment. We weigh many factors when completing these estimates including, but not limited to, the nature of the acquired company's business; its competitive position, strengths, and challenges; its historical financial position and performance; estimated customer retention rates; discount rates; and future plans for the combined entity. We may also engage independent valuation specialists, when necessary, to assist in the fair value calculations for significant acquired long-lived assets.

The fair value of acquired technology is generally the primary asset identified and therefore estimated using the multi-period excess earnings method model estimates revenues and cash flows derived from the primary asset and then deducts portions of the cash flow that can be attributed to supporting assets, such as Trade Names, that contributed to the generation of the cash flows. The resulting cash flow, which is attributable solely to the primary asset acquired, is then discounted at a rate of return commensurate with the risk of the asset to calculate a present value. The Trade Name is generally calculated using the relief from royalty method, which calculates the cost savings associated with owning rather than licensing the technology. Assumed royalty rates are applied to the projected revenues for the remaining useful life of the technology to estimate the royalty savings. In circumstances that Customer Relationship assets are identified that are not the primary asset, they are valued using the distributor model income approach, which isolates revenues and cash flow associated with the sales and distribution function of the entity and attributable to customer-related assets, which are then discounted at a rate of return commensurate with the risk of the asset to calculate a present value.

We estimate the fair value of liabilities for contingent consideration by discounting to present value the probability weighted contingent payments expected to be made. For potential payments related to financial performance based milestones, projected revenue and/or EBITDA amounts, volatility and discount rates assumptions are included in the estimated amounts. For potential payments related to product development milestones, the fair value is based on the probability of achievement of such milestones. The excess of the purchase price over the estimated fair value of the net assets acquired is recorded as goodwill. Goodwill is not amortized, but is subject to impairment testing on at least an annual basis.

We are also required to estimate the useful lives of the acquired intangible assets, which determines the amount of acquisition-related amortization expense we will record in future periods. Each reporting period, we evaluate the remaining useful lives of our amortizable intangibles to determine whether events or circumstances warrant a revision to the remaining period of amortization.

While we use our best estimates and assumptions, our fair value estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Any adjustments required after the measurement period are recorded in the consolidated statements of earnings.

The judgments required in determining the estimated fair values and expected useful lives assigned to each class of assets and liabilities acquired can significantly affect net income. For example, different classes of assets will have useful lives that differ. Consequently, to the extent a longer-lived asset is ascribed greater value than a shorter-lived asset, net income in a given period may be higher. Additionally, assigning a lower value to amortizable intangibles would result in a higher amount assigned to goodwill. As goodwill is not amortized, this would benefit net income in a given period, although goodwill is subject to annual impairment analysis.

Impairment of Goodwill

Good will

Goodwill was \$728.3 million as of June 30, 2020, which represented 35.9% of total assets. Goodwill is tested for impairment on an annual basis in the fourth quarter of each year, or more frequently if events occur or circumstances change that could indicate a possible impairment.

To analyze goodwill for impairment, we must assign our goodwill to individual reporting units. Identification of reporting units includes an analysis of the components that comprise each of our operating segments, which considers, among other things, the manner in which we operate our business and the availability of discrete financial information. Components of an operating segment are aggregated to form one reporting unit if the components have similar economic characteristics. We periodically review our reporting units to ensure that they continue to reflect the manner in which we operate our business.

There has been no impairment of goodwill since the adoption of Financial Accounting Standards Board ("FASB") ASC 350 guidance for goodwill and other intangibles on July 1, 2002.

2020 Goodwill Impairment Analyses

In completing our 2020 annual goodwill impairment analyses, we elected to perform a quantitative assessment for all of our reporting units. A quantitative assessment involves comparing the carrying value of the reporting unit, including goodwill, to its estimated fair value. Carrying value is based on the assets and liabilities associated with the operations of the reporting unit, which often requires the allocation of shared or corporate items among reporting units. In accordance with ASU 2017-04, a goodwill impairment charge is recorded for the amount by which the carrying value of a reporting unit exceeds the fair value of the reporting unit. In determining the fair values of our reporting units, we utilized the income approach. The income approach is a valuation technique under which we estimated future cash flows using the reporting unit's financial forecast from the perspective of an unrelated market participant. Using historical trending and internal forecasting techniques, we projected revenue and applied our fixed and variable cost experience rates to the projected revenue to arrive at the future cash flows. A terminal value was then applied to the projected cash flow stream. Future estimated cash flows were discounted to their present value to calculate the estimated fair value. The discount rate used was the value-weighted average of our estimated cost of capital derived using both known and estimated customary market metrics. In determining the estimated fair value of a reporting unit, we were required to estimate a number of factors, including projected operating results, terminal growth rates, economic conditions, anticipated future cash flows, the discount rate and the allocation of shared or corporate items.

Because our 2020 quantitative analyses included all of our reporting units, the summation of our reporting units' fair values, as indicated by our discounted cash flow calculations, were compared to our consolidated fair value, as indicated by our market capitalization, to evaluate the reasonableness of our calculations. This impairment assessment is sensitive to changes in forecasted cash flows, as well as our selected discount rate. Changes in the reporting unit's results, forecast assumptions and estimates could materially affect the estimation of the fair value of the reporting units.

The quantitative assessment completed as of April 1, 2020 indicated that all of the reporting units had a substantial amount of headroom. Accordingly, the Company determined there was no indication of impairment of goodwill in our annual goodwill impairment analysis. Further, no triggering events were identified in the year ended June 30, 2020 that would require an additional goodwill impairment assessment beyond our required annual goodwill impairment assessment.

2019 Goodwill Impairment Analyses

At the beginning of the quarter ended March 31, 2019, the Company realigned the management of certain business processes between reporting units within the same segment. A goodwill allocation was performed between the impacted reporting units based on the relative fair value of the processes realigned. In conjunction with the realignment, a quantitative goodwill impairment assessment was performed both prior to and subsequent to the realignment. The quantitative impairment assessments performed utilized a consistent process with our fiscal 2020 quantitative goodwill impairment assessment described above. The quantitative assessment indicated that all of the impacted reporting units had substantial headroom both prior to and subsequent to the realignment. This impairment assessment performed was sensitive to changes in forecasted cash flows, as well as our selected discount rate. Changes in the reporting unit's results, forecast assumptions and estimates could materially affect the estimation of the fair value of the reporting units.

In conducting our annual goodwill impairment test as of April 1, 2019, we elected to perform a qualitative assessment to determine whether changes in events or circumstances since our most recent quantitative test for goodwill impairment indicated that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. Based on its annual analysis, the Company determined there was no indication of impairment of goodwill.

2018 Goodwill Impairment Analyses

In completing our 2018 annual goodwill impairment analyses, we elected to perform a quantitative assessment for all of our reporting units. The quantitative impairment assessments performed utilized a consistent process with our fiscal 2020 quantitative goodwill impairment assessment described above. The quantitative assessment completed during the fourth quarter of fiscal 2018 indicated that all of the reporting units had a substantial amount of headroom. This impairment assessment performed was sensitive to changes in forecasted cash flows, as well as our selected discount rate. Changes in the reporting unit's results, forecast assumptions and estimates could materially affect the estimation of the fair value of the reporting units.

NEW ACCOUNTING PRONOUNCEMENTS

Information regarding the accounting policies adopted during fiscal 2020 and those not yet adopted can be found under caption "Note 1: Description of Business and Summary of Significant Accounting Policies" of the Notes to the Consolidated Financial Statements appear in Item 8 of this report.

SUBSEQUENT EVENTS

None

NON-GAAP FINANCIAL MEASURES

This Annual Report on Form 10-K, including "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7, contains financial measures that have not been calculated in accordance with accounting principles generally accepted in the U.S. (GAAP). These non-GAAP measures include:

- Organic growth
- Adjusted gross margin
- Adjusted net earnings
- Adjusted net earnings growth
- Adjusted effective tax rate

We provide these measures as additional information regarding our operating results. We use these non-GAAP measures internally to evaluate our performance and in making financial and operational decisions, including with respect to incentive compensation. We believe that our presentation of these measures provides investors with greater transparency with respect to our results of operations and that these measures are useful for period-to-period comparison of results.

Our non-GAAP financial measure of organic growth represents revenue growth excluding revenue from acquisitions within the preceeding 12 months as well as the impact of foreign currency. Excluding these measures provides more useful period-to-period comparison of revenue results as it excludes the impact of foreign currency exchange rates, which can vary significantly from period to period, and revenue from acquisitions that would not be included in the comparable prior period.

Our non-GAAP financial measures for adjusted gross margin, adjusted operating margin, and adjusted net earnings, in total and on a per share basis, exclude the costs recognized upon the sale of acquired inventory, amortization of acquisition intangibles, acquisition related expenses inclusive of the changes in fair value of contingent consideration, and other non-recurring items including non-recurring costs and gains. The Company excludes amortization of purchased intangible assets, purchase accounting adjustments, including costs recognized upon the sale of acquired inventory and acquisition-related expenses inclusive of the changes in fair value contingent consideration, and other non-recurring items including gains or losses on legal settlements and one-time assessments from this measure because they occur as a result of specific events, and are not reflective of our internal investments, the costs of developing, producing, supporting and selling our products, and the other ongoing costs to support our operating structure. Additionally, these amounts can vary significantly from period to period based on current activity.

The Company's non-GAAP adjusted operating margin and adjusted net earnings, in total and on a per share basis, also excludes stock-based compensation expense, which is inclusive of the employer portion of payroll taxes on those stock awards, restructuring, impairments of equity method investments, gain and losses from investments, and certain adjustments to income tax expense. Stock-based compensation is excluded from non-GAAP adjusted net earnings because of the nature of this charge, specifically the varying available valuation methodologies, subjective assumptions, variety of award types, and unpredictability of amount and timing of employer related tax obligations. Impairments of equity investments are excluded as they are not part of our day-to-day operating decisions. Additionally, gains and losses from other investments that are either isolated or cannot be expected to occur again with any predictability are excluded. Costs related to restructuring activities, including reducing overhead and consolidating facilities, are excluded because we believe they are not indicative of our normal operating costs. The Company independently calculates a non-GAAP adjusted tax rate to be applied to the identified non-GAAP adjustments considering the impact of discrete items on these adjustments and the jurisdictional mix of the adjustments. In addition, the tax impact of other discrete and non-recurring charges which impact our reported GAAP tax rate are adjusted from net earnings. We believe these tax items can significantly affect the period-over-period assessment of operating results and not necessarily reflect costs and/or income associated with historical trends and future results.

The Company periodically reassesses the components of our non-GAAP adjustments for changes in how we evaluate our performance, changes in how we make financial and operational decisions, and considers the use of these measures by our competitors and peers to ensure the adjustments are still relevant and meaningful.

Readers are encouraged to review the reconciliations of the adjusted financial measures used in management's discussion and analysis of the financial condition of the Company to their most directly comparable GAAP financial measures provided within the Company's consolidated financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The Company operates internationally, and thus is subject to potentially adverse movements in foreign currency exchange rates. Approximately 44 % of the Company's consolidated net sales in fiscal 2020 were made in foreign currencies, including 20% in euro, 6% in British pound sterling, 9% in Chinese yuan and the remaining 9% in other currencies. The Company is exposed to market risk primarily from foreign exchange rate fluctuations of the euro, British pound sterling, Chinese yuan and Canadian dollar as compared to the U.S. dollar as the financial position and operating results of the Company's foreign operations are translated into U.S. dollars for consolidation.

Month-end exchange rates between the euro, British pound sterling, Chinese yuan, Canadian dollar and the U.S. dollar, which have not been weighted for actual sales volume in the applicable months in the periods, were as follows:

),		
	20	020 20	019	2018
Euro:				
High	\$	1.12 \$	1.17 \$	1.24
Low		1.09	1.12	1.16
Average		1.11	1.14	1.20
British pound sterling:				
High	\$	1.32 \$	1.32 \$	1.42
Low		1.22	1.27	1.29
Average		1.26	1.29	1.35
Chinese yuan:				
High	\$	0.15 \$	0.15 \$	0.16
Low		0.14	0.14	0.15
Average		0.14	0.15	0.15
Canadian dollar:				
High	\$	0.77 \$	0.77 \$	0.81
Low		0.71	0.74	0.76
Average		0.74	0.76	0.79

The Company's exposure to foreign exchange rate fluctuations also arises from trade receivables and intercompany payables denominated in one currency in the financial statements, but receivable or payable in another currency.

The Company does not enter into foreign currency forward contracts to reduce its exposure to foreign currency rate changes on forecasted intercompany sales transactions or on intercompany foreign currency denominated balance sheet positions. Foreign currency transaction gains and losses are included in "Other non-operating expense, net" in the Consolidated Statement of Earnings and Comprehensive Income. The effect of translating net assets of foreign subsidiaries into U.S. dollars are recorded on the Consolidated Balance Sheet as part of "Accumulated other comprehensive income (loss)."

The effects of a hypothetical simultaneous 10% appreciation in the U.S. dollar from June 30, 2020 levels against the euro, British pound sterling, Chinese yuan and Canadian dollar are as follows (in thousands):

Decrease in translation of 2020 earnings into U.S. dollars	\$ 4,340
Decrease in translation of net assets of foreign subsidiaries	44,766
Additional transaction losses	1,001

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

CONSOLIDATED STATEMENTS OF EARNINGS AND COMPREHENSIVE INCOME

Bio-Techne Corporation and Subsidiaries (in thousands, except per share data)

	 2020	Year E	nded June 30, 2019	 2018
Net sales	\$ 738,691	\$	714,006	\$ 642,993
Cost of sales	 255,497		240,515	 210,850
Gross margin	 483,194		473,491	 432,143
Operating expenses:				
Selling, general and administrative	260,583		264,359	240,636
Research and development	 65,192		62,413	 55,329
Total operating expenses	 325,775		326,772	 295,965
Operating income	 157,419		146,719	 136,178
Other income (expense):				
Interest expense	(19,197)		(21,705)	(10,188)
Interest income	605		569	409
Other non-operating income (expense), net	 137,650		(13,568)	 (447)
Total other income (expense), net	 119,058		(34,704)	 (10,226)
Earnings before income taxes	276,477		112,015	125,952
Income taxes (benefit)	 47,181		15,943	 (198)
Net earnings	 229,296		96,072	 126,150
Other comprehensive income (loss):				
Foreign currency translation adjustments	(9,963)		(4,487)	(1,572)
Unrealized gains (losses) on derivative instruments - cash flow hedges, net of tax amounts disclosed in Note 8.	(3,715)		(9,537)	-
Unrealized gains (losses) on available-for-sale investments, net of tax of \$398 in FY18	-		-	5,693
Other comprehensive income (loss)	 (13,678)		(14,024)	 4,121
Comprehensive income	\$ 215,618		82,048	\$ 130,271
Earnings per share:				
Basic	\$ 6.00	\$	2.54	\$ 3.36
Diluted	\$ 5.82	\$	2.47	\$ 3.31
Weighted average common shares outstanding:				
Basic	38,201		37,781	37,476
Diluted	39,401		38,892	38,055

CONSOLIDATED BALANCE SHEETS

Bio-Techne Corporation and Subsidiaries (in thousands, except share and per share data)

	June		e 30,	• • • •
		2020		2019
ASSETS				
Current assets:	A	146 69 5	¢	100.000
Cash and cash equivalents	\$	146,625	\$	100,886
Short-term available-for-sale investments		124,268		65,147
Accounts receivable, less allowance for doubtful accounts of \$775 and \$980, respectively		122,534		137,466
Inventories		103,152		91,050
Other current assets		24,341		18,058
Total current assets		520,920		412,607
Property and equipment, net		176,829		154,039
Right of use asset		71,465		-
Goodwill		728,308		732,667
Intangible assets, net		516,545		579,429
Other assets		13,522		5,668
Total assets	\$	2,027,589	\$	1,884,410
LIABILITIES AND SHAREHOLDERS' EQUITY				
Current liabilities:				
Trade accounts payable	\$	23,090	\$	16,210
Salaries, wages and related accruals		31,087		28,638
Accrued expenses		9,093		26,389
Contract liabilities		13,049		9,084
Income taxes payable		2,376		5,764
Operating lease liabilities - current		9,535		-
Contingent consideration payable		5,938		3,400
Current portion of long-term debt obligations		12,500		12,500
Total current liabilities		106,668		101,985
Deferred income taxes		101,090		89,754
Long-term debt obligations		344,243		492,660
Long-term contingent consideration payable		199		9,200
Operating lease liabilities		67,248		-
Other long-term liabilities		26,949		25,222
Shareholders' equity:				
Undesignated capital stock, no par; authorized 5,000,000 shares; none issued or outstanding		-		-
Common stock, par value \$.01 a share; authorized 100,000,000 shares; issued and				
outstanding 38,453,046 and 37,934,040 shares, respectively		385		379
Additional paid-in capital		420,536		316,797
Retained earnings		1,057,470		931,934
Accumulated other comprehensive loss		(97,199)		(83,521)
Total shareholders' equity	<u>ф</u>	1,381,192	<u>_</u>	1,165,589
Total liabilities and shareholders' equity	\$	2,027,589	\$	1,884,410

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

Bio-Techne Corporation and Subsidiaries

(in thousands)

	C	C.	7	Additional		Accumulated Other	
	Comm Shares		ock nount	Paid-in Capital	Retained Earnings	Comprehensive Income(Loss)	Total
	Shures		nouni	Cupitut	Lannings	Income(Loss)	10101
Balances at June 30, 2017	37,356	\$	374	\$ 199,161	\$ 799,027	<u>\$ (48,935)</u>	
Net earnings					126,150	4 1 2 1	126,150
Other comprehensive income (loss) Common stock issued for exercise of options	204		2	17,661		4,121	4,121 17,663
Common stock issued for restricted stock awards	34		-	- 17,001	(273)		(273)
Cash dividends	-		-		(47,973)		(47,973)
Stock-based compensation expense				27,959			27,959
Common stock issued to employee stock purchase	1.4			1 506			1.506
plan Employee stock purchase plan expense	14		-	1,506 281			1,506 281
Balances at June 30, 2018	37,608	\$	376	\$ 246,568	\$ 876,931	\$ (44,814)	\$1,079,061
Cumulative effect adjustments due to adoption of	57,000		570	φ <u>210,500</u>		í	
new accounting standards and other					25,276	(24,682)	594
Net earnings					96,072		96,072
Other comprehensive income (loss)	(0.5)				(1 - 10 1)	(14,024)	
Share repurchases	(95) 382		(1)	26 272	(15,404)		(15,405) 36,276
Common stock issued for exercise of options Common stock issued for restricted stock awards	29		4	36,272	(2,575)		(2,575)
Cash dividends	2)				(48,366)		(48,364)
Stock-based compensation expense				31,775	()		31,775
Common stock issued to employee stock purchase							
plan Employee stark much een alem en een	10		-	1,676			1,676
Employee stock purchase plan expense Balances at June 30, 2019	37,934	\$	379	505 \$ 316,797	\$ 931,934	\$ (83,521)	<u>505</u> \$1,165,589
Cumulative effect adjustments due to adoption of		Ψ	517	\$ 510,777		\$ (05,521)	
new accounting standards and other					(879)		(879)
Net earnings					229,296		229,296
Other comprehensive income (loss)						(13,678)	(13,678)
Share repurchases	(279))	(3)		(50,109)		(50,112)
Surrender and retirement of stock to exercise option	(2))	-	(400)			(400)
Common stock issued for exercise of options	730		7	69,461	(1,642)		67,826
Common stock issued for restricted stock awards	56		1	(1)	(2,229)		(2,228)
Cash dividends					(48,902)		(48,902)
Stock-based compensation expense				31,932			31,932
Common stock issued to employee stock purchase plan	14		-	2,312			2,312
Employee stock purchase plan expense				435			435
Balances at June 30, 2020	38,453	\$	385	\$ 420,536	\$1,057,470	\$ (97,199)	\$1,381,192

CONSOLIDATED STATEMENTS OF CASH FLOWS

Bio-Techne Corporation and Subsidiaries

(in thousands)

		2020	Year E	Ended June 30, 2019		2018
Cash flows from operating activities:	.		<u>_</u>		<i>•</i>	
Net earnings	\$	229,296	\$	96,072	\$	126,150
Adjustments to reconcile net earnings to net cash provided by operating activities:						
Depreciation and amortization		82,737		78,171		64,463
Costs recognized on sale of acquired inventory				3,739		2,455
Deferred income taxes		13,130		(13,582)		(46,716)
Stock-based compensation expense		32,367		32,280		28,240
Fair value adjustment to contingent consideration payable		(905)		(2,000)		20,100
Contingent consideration payments		(958)		-		(26,600)
(Gain) Loss on investment, net		-		(3,702)		(397)
Fair value adjustment on available for sale investments		(137,527)		16,067		-
Leases, net		225		-		-
Gain on escrow settlement		(7,170)		-		-
Other operating activity		(732)		2,325		776
Change in operating assets and liabilities, net of acquisitions:						
Trade accounts and other receivables		6,556		(15,000)		(2,700)
Inventories		(14,861)		(13,647)		(13,327)
Prepaid expenses		(2,605)		(698)		2,782
Trade accounts payable and accrued expenses		10,343		6,101		5,026
Salaries, wages and related accruals		2,552		5,013		(89)
Income taxes payable		(7,231)		(9,520)		10,204
Net cash provided by operating activities		205,217		181,619		170,367
Cash flows from investing activities:						
Proceeds from sale and maturities of available-for-sale investments		147,120		21,579		36,390
Purchase of available-for-sale investments		(70,187)		(43,475)		(8,571)
Additions to property and equipment		(51,744)		(25,411)		(20,934)
Acquisitions, net of cash acquired		-		(289,492)		(67,851)
Investment in unconsolidated entity		1,906		-		21,574
Other investing activities		-		-		680
Net cash provided by (used in) investing activities		27,095		(336,799)		(38,712)
Cash flows from financing activities:						
Cash dividends		(48,902)		(48,364)		(47,973)
Proceeds from stock option exercises		70,983		37,950		19,170
Re-purchases of common stock		(50,112)		(15,405)		-
Borrowings under line-of-credit agreement		40,000		580,000		55,000
Payments on line-of-credit		(188,500)		(413,500)		(59,500)
Contingent consideration payments		(3,400)		-		(61,900)
Other financing activities		(3,872)		(6,297)		(3,985)
Net cash provided by (used in) financing activities		(183,802)		134,384		(99,188)
Effect of exchange rate changes on each and each equivalents		() 771)		(308)		(2 000)
Effect of exchange rate changes on cash and cash equivalents		(2,771)				(2,089)
Net change in cash and cash equivalents		45,739		(21,104)		30,378
Cash and cash equivalents at beginning of year	¢	100,886	¢	121,990	¢	91,612
Cash and cash equivalents at end of year	\$	146,625	\$	100,886	\$	121,990

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Bio-Techne Corporation and Subsidiaries

Years ended June 30, 2020, 2019 and 2018

Note 1. Description of Business and Summary of Significant Accounting Policies:

Description of business: Bio-Techne and its subsidiaries, collectively doing business as Bio-Techne Corporation (the Company), develop, manufacture and sell life science reagents, instruments and services for the research and clinical diagnostic markets worldwide. With our deep product portfolio and application expertise, we sell integral components of scientific investigations into biological processes and molecular diagnostics, revealing the nature, diagnosis, etiology and progression of specific diseases. Our products aid in drug discovery efforts and provide the means for accurate clinical tests and diagnoses.

Use of estimates: The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. These estimates include the valuation of accounts receivable, available-for-sale investments, inventory, intangible assets, contingent consideration, stock-based compensation and income taxes. Actual results could differ from these estimates.

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

Translation of foreign financial statements: Assets and liabilities of the Company's foreign operations are translated at year-end rates of exchange and the resulting gains and losses arising from the translation of net assets located outside the U.S. are recorded as other comprehensive income (loss) on the consolidated statements of earnings and comprehensive income. The cumulative translation adjustment is a component of accumulated other comprehensive loss on the consolidated balance sheets. Foreign statements of earnings are translated at the average rate of exchange for the year. Foreign currency transaction gains and losses are included in other non-operating expense in the consolidated statements of earnings and comprehensive income.

Revenue recognition: The Company adopted *ASC 606 - Revenue from Contracts with Customers* on July 1, 2018 using the modified retrospective transition approach. ASC 606 provides revenue recognition guidance for any entity that enters into contracts with customers to transfer goods or services or enters into contracts for the transfer of non-financial assets, unless those contracts are within the scope of other accounting standards. The core principle of ASC 606 is that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Refer to the *Recently Adopted Accounting Pronouncements* section of Note 1 for additional information regarding our adoption of ASC 606 and Note 2 for additional information regarding our revenue recognition policy under *ASC 606*.

Research and development: Research and development expenditures are expensed as incurred. Development activities generally relate to creating new products, improving or creating variations of existing products, or modifying existing products to meet new applications.

Advertising costs: Advertising expenses were \$4.2 million, \$4.1 million, and \$3.8 million for fiscal 2020, 2019, and 2018 respectively. The Company expenses advertising expenses as incurred.

Income taxes: The Company uses the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized to record the income tax effect of temporary differences between the tax basis and financial reporting basis of assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Tax positions taken or expected to be taken in a tax return are recognized in the financial statements when it is more likely than not that the position would be sustained upon examination by tax authorities. A recognized tax position is then measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. The Company recognizes interest and penalties related to unrecognized tax benefits in income tax expense.

See Note 11 for additional information regarding income taxes.

Comprehensive income: Comprehensive income includes charges and credits to shareholders' equity that are not the result of transactions with shareholders. Our total comprehensive income consists of net income, unrealized gains and losses on cash flow hedges, and foreign currency translation adjustments. The items of comprehensive income, with the exception of net income, are included in accumulated other comprehensive loss in the consolidated balance sheets and statements of shareholders' equity.

Cash and cash equivalents: Cash and cash equivalents include cash on hand and highly-liquid investments with original maturities of three months or less.

Available-for-sale investments: Available-for-sale investments consist of debt instruments with original maturities of generally three months to six months and equity securities. Available-for-sale investments are recorded based on trade-date. The Company considers all of its marketable securities available-for-sale and reports them at fair value. Unrealized gains and losses on available-for-sale securities are included within other income (expense) beginning in fiscal 2019 as the Company adopted ASU 2018-02 on July 1, 2018, as further described in the *Recently Adopted Accounting Pronouncements* section of Note 1. Unrealized gains or losses on available-for-sale securities were recorded within comprehensive income in fiscal year 2018.

Trade accounts receivable: Trade accounts receivable are initially recorded at the invoiced amount upon the sale of goods or services to customers, and they do not bear interest. They are stated net of allowances for doubtful accounts, which represent estimated losses resulting from the inability of customers to make the required payments. When determining the allowances for doubtful accounts, we take several factors into consideration, including the overall composition of accounts receivable aging, our prior history of accounts receivable write-offs, the type of customer and our day-to-day knowledge of specific customers. Changes in the allowances for doubtful accounts are included in selling, general and administrative (SG&A) expense in our consolidated statements of earnings and comprehensive income. The point at which uncollected accounts are written off varies by type of customer.

Inventories: Inventories are stated at the lower of cost (first-in, first-out method) or net realizable value. The Company regularly reviews inventory on hand for slow-moving and obsolete inventory, inventory not meeting quality control standards and inventory subject to expiration.

For certain proteins, antibodies, and chemically based manufactured products, the Company produces larger batches of established products than current sales requirements due to economies of scale through a highly controlled manufacturing process. Accordingly, the manufacturing process for these products has and will continue to produce quantities in excess of forecasted usage. The Company forecasts usage for its products based on several factors including historical demand, current market dynamics, and technological advances. The Company forecasts product usage on an individual product level for a period that is consistent with our ability to reasonably forecast inventory usage for that product. There have been no material changes to the Company's estimates of the net realizable value for excess and obsolete inventory or other types of inventory reserves and inventory cost adjustments in the fiscal years presented. Additionally, current and historical reserves recorded to reduce the cost of inventory to its net realizable value become part of the new cost basis for the inventory item in accordance with *ASC 330 - Inventory*.

Property and equipment: Property and equipment are recorded at cost. Equipment is depreciated using the straight-line method over an estimated useful life of 3 to 5 years. Buildings, building improvements and leasehold improvements are amortized over estimated useful lives of 5 to 40 years.

Contingent Consideration: Contingent Consideration relates to the potential payment for an acquisition that is contingent upon the achievement of the acquired business meeting certain product development milestones and/or certain financial performance milestones. The Company records contingent consideration at fair value at the date of acquisition based on the consideration expected to be transferred. For potential payments related to financial performance milestones, we use a real option model in calculating the fair value of the contingent consideration liabilities. The assumptions utilized in the calculation based on financial performance milestones include projected revenue and/or EBITDA amounts, volatility and discount rates. For potential payments related to product development milestones, we estimated the fair value based on the probability of achievement of such milestones. The assumptions utilized in the calculation involves certain assumptions requiring significant judgment and actual results may differ from assumed and estimated amounts. Contingent consideration is remeasured each reporting period, and subsequent changes in fair value, including accretion for the passage of time, are recognized within selling, general and administrative in the consolidated statement of earnings and comprehensive income

Intangibles assets: Intangible assets are stated at historical cost less accumulated amortization. Amortization expense is generally determined on the straight-line basis over periods ranging from 1 year to 20 years. Each reporting period, we evaluate the remaining useful lives of our amortizable intangibles to determine whether events or circumstances warrant a revision to the remaining period of amortization. If our estimate of an asset's remaining useful life is revised, the remaining carrying amount of the asset is amortized prospectively over the revised remaining useful life. In the current year, the Company identified one item as described in the *Impairment of long-lived assets and amortizable intangibles* section below.

Impairment of long-lived assets and amortizable intangibles: We evaluate the recoverability of property, plant, equipment and amortizable intangibles whenever events or changes in circumstances indicate that an asset's carrying amount may not be recoverable. Such circumstances could include, but are not limited to, (1) a significant decrease in the market value of an asset, (2) a significant adverse change in the extent or manner in which an asset is used or in its physical condition, or (3) an accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of an asset. We compare the carrying amount of the asset to the estimated undiscounted future cash flows associated with it. If the sum of the expected future net cash flows is less than the carrying value of the asset being evaluated, an impairment loss would be recognized. The impairment loss would be calculated as the amount by which the carrying value of the asset exceeds the fair value of the asset. As quoted market prices are not available for the majority of our assets, the estimate of fair value is based on various valuation techniques, including the discounted value of estimated future cash flows.

The evaluation of asset impairment requires us to make assumptions about future cash flows over the life of the asset being evaluated. These assumptions require significant judgment and actual results may differ from assumed and estimated amounts. During fiscal year 2020, the Company accelerated the amortization of a certain trade name based on the Company's planned integration of the products under that acquired trade name into a legacy brand. The accelerated amortization resulted in \$1.3 million in additional amortization expense in fiscal 2020 and an estimated \$0.6 million in fiscal 2021. No other triggering events were identified and no impairments were recorded for property, plant, and equipment or amortizable intangibles during fiscal years 2018, 2019, and 2020.

Impairment of goodwill: We evaluate the carrying value of goodwill during the fourth quarter each year and between annual evaluations if events occur or circumstances change that would indicate a possible impairment. Such circumstances could include, but are not limited to, (1) a significant adverse change in legal factors or in business climate, (2) unanticipated competition, (3) an adverse action or assessment by a regulator, or (4) an adverse change in market conditions that are indicative of a decline in the fair value of the assets.

To analyze goodwill for impairment, we must assign our goodwill to individual reporting units. Identification of reporting units includes an analysis of the components that comprise each of our operating segments, which considers, among other things, the manner in which we operate our business and the availability of discrete financial information. Components of an operating segment are aggregated to form one reporting unit if the components have similar economic characteristics. We periodically review our reporting units to ensure that they continue to reflect the manner in which we operate our business.

2020 Goodwill Impairment Analyses

In completing our 2020 annual goodwill impairment analyses, we elected to perform a quantitative assessment for all of our reporting units. A quantitative assessment involves comparing the carrying value of the reporting unit, including goodwill, to its estimated fair value. Carrying value is based on the assets and liabilities associated with the operations of the reporting unit, which often requires the allocation of shared or corporate items among reporting units. In accordance with ASU 2017- 04, a goodwill impairment charge is recorded for the amount by which the carrying value of a reporting unit exceeds the fair value of the reporting unit. In determining the fair values of our reporting units, we utilized the income approach. The income approach is a valuation technique under which we estimated future cash flows using the reporting unit's financial forecast from the perspective of an unrelated market participant. Using historical trending and internal forecasting techniques, we projected revenue and applied our fixed and variable cost experience rates to the projected revenue to arrive at the future cash flows. A terminal value was then applied to the projected cash flow stream. Future estimated cash flows were discounted to their present value to calculate the estimated fair value. The discount rate used was the value- weighted average of our estimated cost of capital derived using both known and estimated customary market metrics. In determining the estimated fair value of a reporting unit, we were required to estimate a number of factors, including projected operating results, terminal growth rates, economic conditions, anticipated future cash flows, the discount rate and the allocation of shared or corporate items.

The result of our quantitative assessment, where we compared the discounted cash flows of each reporting unit to its carrying value, indicated that all of the reporting units had a substantial amount of headroom as of April 1, 2020. This impairment assessment is sensitive to changes in forecasted cash flows, as well as our selected discount rate. Changes in the reporting unit's results, forecast assumptions and estimates could materially affect the estimation of the fair value of the reporting units. The Company did not identify any triggering events after our annual goodwill impairment through June 30, 2020, the date of our consolidated balance sheet, that would require an additional goodwill impairment assessment to be performed.

2019 Goodwill Impairment Analyses

At the beginning of the quarter ended March 31, 2019, the Company realigned the management of certain business processes between reporting units within the same segment. A goodwill allocation was performed between the impacted reporting units based on the relative fair value of the processes realigned. In conjunction with the realignment, a quantitative goodwill impairment assessment was performed both prior to and subsequent to the realignment. The quantitative assessment indicated that all of the impacted reporting units had substantial headroom both prior to and subsequent to the realignment.

Because our quantitative analysis performed as of January 1, 2019 included all of our reporting units, except for Exosome a recent acquisition that was a separate reporting unit that was not impacted by the business process realignment, the summation of the calculated reporting units' fair values combined with the fair value of the Exosome acquisition, was compared to our consolidated fair value, as indicated by our market capitalization, to evaluate the reasonableness of our calculations.

The quantitative assessments completed as of January 1, 2019 indicated that all tested reporting units had a substantial amount of headroom. Changes in the reporting unit's results, forecast assumptions and estimates could materially affect the estimation of the fair value of the reporting units.

In conducting our annual goodwill impairment test on April 1, we elected to perform a qualitative assessment to determine whether changes in events or circumstances since our most recent quantitative test for goodwill impairment indicated that it is more likely than not that the fair value of a reporting unit is less than its carrying amount.

Based on its annual analysis, the Company determined there was no indication of impairment of goodwill. Further, no triggering events or items beyond the realignment discussed above were identified in the year ended June 30, 2019 that would require an additional goodwill impairment assessment beyond our required annual goodwill impairment assessment.

2018 Goodwill Impairment Analyses

In completing our 2018 annual goodwill impairment analyses, we elected to perform a quantitative assessment for all of our reporting units, with a process consistent to that described in our 2020 Goodwill Impairment Analyses section above. The quantitative assessment completed indicated that all of the reporting units had a substantial amount of headroom. This impairment assessment is sensitive to changes in forecasted cash flows, as well as our selected discount rate. Changes in the reporting unit's results, forecast assumptions and estimates could materially affect the estimation of the fair value of the reporting units.

There has been no impairment of goodwill since the adoption of Financial Accounting Standards Board ("FASB") ASC 350 guidance for goodwill and other intangibles on July 1, 2002.

Investments in unconsolidated entities: The Company periodically invests in the equity of start-up and early development stage companies. The accounting treatment of each investment (cost method or equity method) is dependent upon a number of factors, including, but not limited to, the Company's share in the equity of the investee and the Company's ability to exercise significant influence over the operating and financial policies of the investee.

Other Significant Accounting Policies

The following table includes a reference to additional significant accounting policies that are described in other notes to the financial statements, including the note number:

Policy	Note
Fair value measurements	5
Earnings per share	9
Share-based compensation	10
Operating segments	12

Recently Adopted Accounting Pronouncements

In *February 2016*, the FASB issued ASU *2016-02*, Leases (Topic *842*), which amends the existing guidance to require lessees to recognize lease assets and lease liabilities from operating leases on the balance sheet. The FASB has issued narrow codification improvements to Leases (Topic *842*) through ASU *No. 2018-10* and ASU *2019-01*. Additionally, the FASB issued ASU *2018-11*, allowing an entity to elect a transition method where they do *not* recast prior periods presented in the financial statements in the period of adoption. The Company has elected the transition method allowed for under ASU *2018-11* when adopting Leases (Topic *842*). The Company adopted the standard effective *July 1*, *2019* and correspondingly recorded incremental operating lease liabilities of \$80.6 million, a right-of-use lease asset of \$79.5 million, retained earnings of \$0.8 million and a deferred tax adjustment of \$0.3 million. Additionally, the Company reclassified \$4.0 million of deferred rent recorded within accrued expenses under ASC *840* - Leases into operating lease liabilities upon adoption of Topic *842*. In adopting ASC *842*, the Company elected the package of available practical expedients and to use hindsight in determining the lease term for all existing leases. Further, as part of our adoption of ASC *842*, the Company also made the accounting policy elections to *not* capitalize short term leases (defined as a lease with a lease term that is less than *12* months) and to combine lease and non-lease components for all asset classes in determining the lease payments. Refer to Note 7 for additional information on leases.

Pronouncements Issued but Not Yet Adopted

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses (Topic* 326), *Measurement of Credit Losses on Financial Instruments*. The amendment in this update replace the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses on instruments within its scope, including trade and loan receivables and available-for-sale debt securities. This update is intended to provide financial statement users with more decision-useful information about the expected credit losses. This ASU is effective for annual periods and interim periods for those annual periods beginning after December 15, 2019, which for us is July 1, 2020. Entities may early adopt beginning after December 15, 2018. We have completed our evaluation of the impact of the adoption of ASU 2016-13, noting the impact of adoption is not expected to have a material impact on our consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract.* The standard aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The accounting for the service element of a hosting arrangement that is a service contract is not affected by the new standard. This ASU is effective for annual periods and interim periods for those annual periods beginning after December 15, 2019, which for us is July 1, 2020 and may be adopted retrospectively or prospectively to eligible costs incurred on or after the date the guidance is first applied. We do not expect this standard to have a material impact on our consolidated financial statements and we will adopt the standard prospectively on July 1, 2020.

In *March 2020*, the FASB issued ASU *No. 2020-04, Facilitation of the Effects of Reference Rate Reform on Financial Reporting.* This ASU provides expedients and exceptions to existing guidance on contract modifications and hedge accounting that is optional to facilitate the market transition from a reference rate, including LIBOR which is being phased out in *2021*, to a new reference rate. The provisions of the ASU would impact contract modifications and other changes that occur while LIBOR is phased out. The Company is in the process of evaluating the optional relief guidance provided within this ASU and is also reviewing its debt and derivative instrument that utilizes LIBOR as the reference rate. The Company will continue to evaluate and monitor developments and our assessment of ASU *2020-04* during the LIBOR transition period.

Note 2. Revenue Recognition:

Consumables revenues consist of single-use products and are recognized at a point in time following the transfer of control of such products to the customer, which generally occurs upon shipment. Instruments revenues typically consist of longer-lived assets that, for the substantial majority of sales, are recognized at a point in time in a manner similar to consumables. The vast majority of service revenues consist of extended warranty contracts, post contract support ("PCS"), and custom development projects. Revenue for these contracts are recognized over time as either the customers receive and consume the benefits of such services simultaneously or the underlying asset being developed has no alternative use for the Company at contract inception and the Company has an enforceable right to payment for the portion of the performance completed. The remaining service revenues were not material to the period and consist of laboratory services recognized at point in time. Given the Company does not have significant historical experience collecting payments from Medicare or insurance providers, the Company considered the variable consideration for such services to be constrained as it would not be probable that a significant amount of revenue would not need to be reversed in future periods for the services provided. Accordingly, the Company does not record revenue upon completion of the performance obligation, but rather upon cash receipt, which is subsequent to the performance obligation being satisfied. Royalty revenues are based on net sales of the Company's licensed products by a third party. We recognize royalty revenues in the period the sales occur using third party evidence to estimate the amount to be recorded. The Company has also elected the "right to invoice" practical expedient based on the Company's right to invoice a customer at an amount that approximates the value to the customer and the performance completed to date.

The Company has elected the exemption to not disclose the unfulfilled performance obligations for contracts with an original length of one year or less and the exemption to exclude future performance obligations that are accounted under the sales-based or usage-based royalty guidance. The Company's unfulfilled performance obligations for contracts with an original length greater than one year were not material as of June 30, 2020 and June 30, 2019.

Contracts with customers that contain instruments may include multiple performance obligations. For these contracts, the Company allocates the contract's transaction price to each performance obligation on a relative standalone selling price basis. Allocation of the transaction price is determined at the contracts' inception.

Payment terms for shipments to end-users are generally net 30 days. Payment terms for distributor shipments may range from 30 to 90 days. Service arrangements commonly call for payments in advance of performing the work (e.g. extended warranty and service contracts), upon completion of the service (e.g. custom development manufacturing) or a mix of both.

Contract assets include revenues recognized in advance of billings. Contract assets are included within other current assets in the accompanying balance sheet as the amount of time expected to lapse until the company's right to consideration becomes unconditional is less than one year. We elected the practical expedient allowing us to expense costs of obtaining contracts less than one year that would otherwise be capitalized and amortized over the contract period. Contract assets as of June 30, 2020 are not material.

Contract liabilities include billings in excess of revenues recognized, such as those resulting from customer advances and deposits and unearned revenue on warranty contracts. Contract liabilities as of June 30, 2020 and June 30, 2019 were approximately \$14.2 million and \$10.4 million, respectively. Contract liabilities as of June 30, 2019 subsequently recognized as revenue during the year ended June 30, 2020 were approximately \$7.6 million. Contract liabilities in excess of one year are included in Other long-term liabilities on the balance sheet.

Any claims for credit or return of goods must be made within 10 days of receipt. Revenues are reduced to reflect estimated credits and returns. Although the amounts recorded for these revenue deductions are dependent on estimates and assumptions, historically our adjustments to actual results have not been material.

Taxes collected from customers relating to product sales and remitted to governmental authorities are excluded from revenue. Amounts billed to customers for shipping and handling are included in revenue, while the related shipping and handling costs are reflected in cost of products. We have elected the practical expedient that allows us to account for shipping and handling activities that occur after the customer has obtained control of a good as a fulfillment cost, and we accrue costs of shipping and handling when the related revenue is recognized.

The following tables present our disaggregated revenue for the periods presented.

Revenue by type is as follows:

	Year ended June 30,					
		2020		2019		2018
Consumables	\$	602,642	\$	588,979	\$	534,738
Instruments		71,462		67,538		61,784
Services		47,459		38,050		34,137
Total product and services revenue, net		721,563	\$	694,567		630,659
Royalty revenues		17,128		19,439		12,334
Total revenues, net	\$	738,691	\$	714,006	\$	642,993

Revenue by geography is as follows:

	Year Ended June 30,					
		2020		2019		2018
Net sales:						
United States	\$	404,407	\$	391,191	\$	346,293
EMEA, excluding U.K.		155,289		155,821		148,599
U.K.		30,411		34,975		33,704
APAC, excluding Greater China		60,362		52,913		48,392
Greater China		68,792		57,799		47,950
Rest of world		19,430		21,307		18,055
Total external sales	\$	738,691	\$	714,006	\$	642,993

Note 3. Supplemental Balance Sheet and Cash Flow Information:

Available-For-Sale Investments:

The fair value of the Company's available-for-sale investments as of June 30, 2020 and June 30, 2019 were \$87.8 million and \$38.2 million, respectively. The increase was due to year-over-year increase in the stock price of CCXI, which was \$9.30 per share at June 30, 2019 compared to \$57.54 per share at June 30, 2020. The amortized cost basis of the Company's investment in CCXI was \$6.6 million and \$18.8 million as of June 30, 2020 and 2019 respectively.

Inventories:

Inventories consist of (in thousands):

		June 30,			
	20	2020			
Raw materials	\$	51,530 \$	40,913		
Finished goods(1)		56,268	53,376		
Inventories, net	\$	107,798 \$	94,289		

(1) Finished goods inventory of \$4,646 and \$3,239 is included within other long-term assets in the June 30, 2020 and June 30, 2019 Balance Sheets, respectively, as it forecasted to be sold after the 12 months subsequent to the consolidated balance sheet date.

Property and Equipment:

Property and equipment consist of (in thousands):

	<i>June 30</i> ,					
	2020			2019		
Cost:						
Land	\$	8,516	\$	7,065		
Buildings and improvements		184,430		175,019		
Machinery, equipment and other		153,704		124,233		
Property and equipment		346,650		306,317		
Accumulated depreciation and amortization		(169,821)		(152,278)		
Property and equipment, net	\$	176,829	\$	154,039		

Intangibles assets were comprised of the following (in thousands):

	Useful Life (years)		2020		2019
Developed technology	9 - 15	\$	434,653	\$	435,679
Trade names	2 - 20		146,713		147,296
Customer relationships	7 - 16		211,750		214,320
Patents	10		2,475		2,133
Intangible assets			795,591		799,428
Accumulated amortization			(279,046)		(219,999)
Intangibles assets, net		\$	516,545	\$	579,429

Changes to the carrying amount of net intangible assets consist of (in thousands):

	June 30,						
	 2020	2019					
Beginning balance	\$ 579,429 \$	446,332					
Acquisitions (Note 4)	-	191,956					
Other additions	311	633					
Amortization expense	(61,095)	(58,715)					
Currency translation	(2,100)	(777)					
Ending balance	\$ 516,545 \$	579,429					

Amortization expense related to technologies included in cost of sales was \$34.5 million, \$33.3 million, and \$25.3 million in fiscal 2020, 2019, and 2018, respectively. Amortization expense related to trade names, customer relationships, non-compete agreements, and patents included in selling, general and administrative expense was \$26.6 million, \$25.4 million, and \$21.6 million, in fiscal 2020, 2019, and 2018 respectively.

The estimated future amortization expense for intangible assets as of June 30, 2020 is as follows (in thousands):

2021	\$ 59,766
2020	57,564
2023	55,696
2024	53,198
2025	50,024
Thereafter	240,297
Total	\$ 516,545

Changes in goodwill by segment and in total consist of (in thousands):

	Protein Sciences		gnostics & Genomics	Total
June 30, 2018	\$ 347,918	\$	249,972	\$ 597,890
Acquisitions (Note 4)	30,939		105,362	136,301
Currency translation	 (1,450)		(74)	 (1,524)
June 30, 2019	\$ 377,407	\$	355,260	\$ 732,667
Acquisitions (Note 4)	 (326)		-	 (326)
Currency Translation	 (4,000)		(31)	 (4,031)
June 30, 2020	\$ 373,081	\$	355,229	\$ 728,310

Other Assets:

Other assets consist of (in thousands):

		June 30,						
	20	2020						
Long-term deposits	\$	6,234	\$	487				
Other		7,288		5,181				
Other long-term assets	\$	13,522	\$	5,668				

As of June 30, 2020, the Company had \$13.5 million of other assets compared to \$5.7 million as of June 30, 2019. The increase in other long-term assets in fiscal 2020 is primarily attributable to deposits made on our GMP manufacturing facility.

Supplemental Cash Flow Information:

Supplemental cash flow information was as follows (in thousands):

	Year Ended June 30,								
	2020			2019		2018			
Income taxes paid	\$	41,992	\$	36,814	\$	35,076			
Interest paid		18,615		21,497		9,844			
Non-cash activities:									
Acquisition-related liabilities (1)		(2,105)		12,600		1,396			

(1) Consists of holdback payments due at future dates and liabilities for contingent consideration. Amounts disclosed above represent the total non-cash change in the liability from the prior fiscal year. Further information regarding liabilities for contingent consideration can be found in Notes 4 and 5.

Note 4. Acquisitions:

We periodically complete business combinations that align with our business strategy. Acquisitions are accounted for using the acquisition method of accounting, which requires, among other things, that assets acquired and liabilities assumed be recognized at fair value as of the acquisition date and that the results of operations of each acquired business be included in our consolidated statements of comprehensive income from their respective dates of acquisitions. Acquisition costs are recorded in selling, general and administrative expenses as incurred.

2019 Acquisitions

Quad Technologies

On July 2, 2018, the Company acquired QT Holdings Corporation (Quad) for approximately \$20.5 million, net of cash acquired, plus contingent consideration of up to \$51.0 million, subject to certain product development milestones and revenue thresholds. The goodwill recorded as a result of the acquisition represents the strategic benefits of growing the Company's product portfolio and the expected revenue growth from increased market penetration. The goodwill is not deductible for income tax purposes. The business became part of the Protein Sciences operating segment in the first quarter of fiscal year 2019. Purchase accounting was finalized during fiscal 2019.

Tangible assets and liabilities acquired were recorded at fair value on the date of close based on management's assessment. The purchase price allocated to developed technology was estimated based on management's forecasted cash inflows and outflows using a multi-period excess earnings method to calculate the fair value of assets purchased. The developed technology asset is being amortized with the expense reflected in cost of goods sold in the Consolidated Statement of Earnings and Comprehensive Income. The amortization period for the developed technology intangible assets acquired in fiscal 2019 is 14 years. The net deferred income tax liability represents the net amount of the estimated future impact of adjustments for costs to be recognized as intangible asset amortization, which is not deductible for income tax purposes offset by the deferred tax asset for our calculation of acquired net operating losses (NOLs).

Exosome Diagnostics

On August 1, 2018, the Company acquired Exosome Diagnostics, Inc. (ExosomeDx) for approximately \$251.6 million, net of cash acquired, plus contingent consideration of up to \$325.0 million, subject to certain EBITA thresholds. The goodwill recorded as a result of the acquisition represents the strategic benefits of growing the Company' product portfolio and the expected revenue growth from increased market penetration. The goodwill is not deductible for income tax purposes. The business became part of the Diagnostics and Genomics operating segment in the first quarter of fiscal year 2019. Purchase accounting was finalized during fiscal 2019.

Tangible assets and liabilities acquired were recorded at fair value on the date of close based on management's assessment. The purchase price allocated to developed technology, trade names, and customer relationships was based on management's forecasted cash inflows and outflows and using either a relief-from-royalty or a multiperiod excess earnings method to calculate the fair value of assets purchased. The developed technology asset is being amortized with the expense reflected in cost of goods sold in the Condensed Consolidated Statement of Earnings and Comprehensive Income. Amortization expense related to trade names, and customer relationships is reflected in selling, general and administrative expenses in the Consolidated Statement of Earnings and Comprehensive Income. The amortization periods for intangible assets acquired in fiscal 2019 are 15 years for developed technology and trade names, and 14 years for customer relationships. The net deferred income tax liability represents the net amount of the estimated future impact of adjustments for costs to be recognized as intangible asset amortization, which is not deductible for income tax purposes offset by the deferred tax asset for the preliminary calculation of acquired NOLs.

Note: As part of the ExosomeDx acquisition, a certain amount of the cash payment was held in escrow. As part of the finalization of the outstanding amounts held in escrow, the Company recognized a gain of \$7.2 million related to returned proceeds and a relief of any future contingent payments as described in Note 5. The gain was recorded within selling, general, and administrative costs in the Consolidated Statement of Comprehensive Income.

B-MoGen Biotechnologies

On June 4, 2019, the Company acquired the remaining interest in B-MoGen Biotechnologies Inc. (B-MoGen) for approximately \$17.5 million, net of cash acquired, plus contingent consideration of up to \$38.0 million, subject to certain product development milestones and revenue thresholds. The Company previously held an investment of \$1.4 million in B-MoGen and recognized a gain of approximately \$3.7 million on the transaction within other non-operating income fiscal year 2019 in the consolidated statements of earnings and comprehensive income, which represented the adjustment of our historical investment to its fair value.

The goodwill recorded as result of the acquisition represents the strategic benefits of growing the Company's product portfolio and the expected revenue growth from increased market penetration. The goodwill is not deductible for income tax purposes. The business became part of the Protein Sciences segment in the fourth quarter of fiscal year 2019. Purchase accounting remained opened as disclosed in our prior year 10-K/A for working capital adjustments and our income tax assessment of acquired net operating losses (NOLs) with the completion of the stub period tax returns. Our purchase accounting was finalized in fiscal 2020 with an immaterial adjustment of \$0.3 million to deferred tax amounts and goodwill.

Tangible assets and liabilities acquired were recorded at fair value on the date of close based on management's assessment. The purchase price allocated to developed technology was estimated based on management's forecasted cash inflows and outflows and using a multi-period excess earnings method to calculate the fair value of assets purchased. The developed technology asset is being amortized with the expense reflected in cost of goods sold in the Consolidated Statement of Earnings and Comprehensive Income. The amortization period for the developed technology intangible asset acquired in fiscal 2019 is 14 years. The net deferred income tax liability represents the net amount of the estimated future impact of adjustments for costs to be recognized as intangible asset amortization, which is not deductible for income tax purposes offset by the deferred tax asset for the preliminary calculation of acquired NOLs.

2018 Acquisitions

Trevigen

On September 5, 2017 the Company acquired the stock of Trevigen Inc. for approximately \$10.6 million, net of cash received. The Company has had a long-standing business relationship with Trevigen as a distributor of its product line. The goodwill recorded as a result of the acquisition represents the strategic benefits of growing the Company's product portfolio and the expected revenue growth from increased market penetration. The goodwill is not deductible for income tax purposes. The business became part of the Protein Sciences segment in the first quarter of fiscal 2018.

Atlanta Biologicals

On January 2, 2018 the Company acquired the stock of Atlanta Biologicals, Inc. and its affiliated company, Scientific Ventures, Inc., for approximately \$51.3 million, net of cash acquired. The transaction was financed through available cash on hand and an additional draw from the Company's line-of-credit. Atlanta Biologicals fetal bovine serum (FBS) product line strengthens and complements our current tissue culture reagents offering and furthers our efforts to provide more complete solutions to our research customers. The goodwill recorded as a result of the acquisition represents the strategic benefits of growing the Company's product portfolio and the expected revenue growth from increased market penetration. The goodwill is not deductible for income tax purposes. The business became part of the Protein Sciences segment in the third quarter of fiscal 2018. Purchase accounting was finalized during fiscal 2018.

Tangible assets acquired in the acquisition, net of liabilities assumed, were recorded at fair value on the date of close based on management's assessment. The purchase price allocated to developed technology, trade names, and customer relationships was based on management's forecasted cash inflows and outflows and using a relief-from-royalty and a multi-period excess earnings method to calculate the fair value of assets purchased. The developed technology is being amortized with the expense reflected in cost of goods sold in the Consolidated Statement of Earnings and Comprehensive Income. Amortization expense related to trade names, and customer relationships is reflected in selling, general and administrative expenses in the Consolidated Statement of Earnings and Comprehensive Income. The amortization periods for intangible assets acquired in fiscal 2018 are 13 years for developed technology, 12 years for customer relationships, and 15 years for trade names. The deferred income tax liability represents the net amount of the estimated future impact of adjustments for costs to be recognized upon the sale of acquired inventory that was written up to fair value and intangible asset amortization, both of which are not deductible for income tax purposes.

Eurocell Diagnostics

On February 1, 2018, the Company acquired Eurocell Diagnostics SAS, a company based in Rennes, France, for approximately \$7.3 million, net of cash acquired. The Company paid \$6.0 million on the acquisition date and the remaining \$1.3 million was paid on February 1, 2019. The Company has had a long-standing business relationship with Eurocell as a distributor of its product line. Eurocell sells directly to the laboratory markets in the French region as well as servicing the EMEA markets via a network of distributors. The transaction was financed through cash on hand. The primary asset in this acquisition is the customer relationships; however, the acquisition resulted in some goodwill as we expect strategic benefits of revenue growth from increased market penetration. The goodwill is not deductible for income tax purposes. The business became part of the Company's Diagnostics and Genomics segment in the third quarter of fiscal 2018.

Tangible assets acquired, net of liabilities assumed, were recorded at fair value on the date of close based on management's assessment. The purchase price allocated to customer relationships was based on management's forecasted cash inflows and outflows using a multi-period excess earnings method to calculate the fair value of assets purchased. Amortization expense related customer relationships is reflected in selling, general and administrative expenses in the Consolidated Statement of Earnings and Comprehensive Income. The amortization period for customer relationships acquired in fiscal 2018 is 7 years. The deferred income tax liability represents the net amount of the estimated future impact of intangible asset amortization, which is not deductible for income tax purposes.

	B-MoGen Biotechnologies	Exosome Diagnostics	Quad Technologies	Trevigen	Atlanta Biologicals	Eurocell Diagnostics
Current assets, net of cash	\$ 504	\$ 2,611	\$ 36	\$ 1,662	\$ 15,722	\$ 512
Equipment and other long-term						
assets	269	2,212	228	53	4,901	188
Intangible assets:						
Developed technology	14,000	105,000	12,256	5,100	23,000	-
Trade name	-	58,000	-	160	2,300	-
Customer relationships	400	2,300	-	260	3,600	6,272
Goodwill	16,131	105,362	14,481	5,991	10,195	2,910
Total assets acquired	31,304	275,485	27,001	13,226	59,718	9,882
Liabilities	211	3,716	296	387	90	483
Deferred income taxes, net	3,051	16,346	943	2,195	8,354	2,070
Net assets acquired	\$ 28,042	\$ 255,423	\$ 25,762	\$ 10,644	\$ 51,274	\$ 7,329
Cash paid, net of cash acquired	17,448	251,623	20,462	\$ 10,644	\$ 51,274	
Consideration payable	5,500	-	-	-	-	1,396
Contingent consideration payable	5,094	3,800	5,300			
Net assets acquired	\$ 28,042	\$ 255,423	\$ 25,762	\$ 10,644	\$ 51,274	\$ 7,329

Tangible assets acquired, net of liabilities assumed, were stated at fair value at the date of acquisition based on management's assessment. The purchase price allocated to developed technology, trade names, non-compete agreements and customer relationships was based on management's forecasted cash inflows and outflows and using a relief-from-royalty and multi-period excess earnings method to calculate the fair value of assets purchased. The developed technology is being amortized with the expense reflected in cost of good sold in the Consolidated Statements of Earnings and Comprehensive Income. Amortization expense related to trade names, the non-compete agreement and customer relationships is reflected in selling, general and administrative expenses in the Consolidated Statements of Earnings and Comprehensive Income. The deferred income tax liability represents the estimated future impact of adjustments for the cost to be recognized upon the sale of acquired inventory that was written up to fair value and intangible asset amortization, both of which are not deductible for income tax purposes, and the future tax benefit of net operating loss and tax credit carryforwards which will be deductible by the Company in future periods.

Note 5. Fair Value Measurements:

The Company's financial instruments include cash and cash equivalents, available for sale investments, accounts receivable, accounts payable, contingent consideration obligations, derivative instruments, and long-term debt.

Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. This standard also establishes a hierarchy for inputs used in measuring fair value. This standard maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use in valuing the asset or liability based on market data obtained from independent sources. Unobservable inputs are inputs that reflect our assumptions about the factors market participants would use in valuing the asset or liability based upon the best information available in the circumstances.

The categorization of financial assets and liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The hierarchy is broken down into three levels. Level 1 inputs are quoted prices in active markets for identical assets or liabilities. Level 2 inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable for the asset or liability and their fair values are determined using pricing models, discounted cash flow methodologies or similar techniques and at least one significant model assumption or input is unobservable. Level 3 may also include certain investment securities for which there is limited market activity or a decrease in the observability of market pricing for the investments, such that the determination of fair value requires significant judgment or estimation.

The following tables provide information by level for financial assets and liabilities that are measured at fair value on a recurring basis (in thousands):

	va	Total carrying value as of		Fair Va In	ts Usii as				
	J	lune 30,					7	1.2	
• .		2020		Level 1	evel 1 Level 2		L	evel 3	
Assets	¢	07 010	\$	70.946	¢	7.006	¢		
Equity securities (1) Certificates of deposit (2)	\$	87,842 36,426	Ф	79,846 36,426	\$	7,996	\$	-	
Total Assets	\$	124,268	\$	116,272	\$	7,996	\$		
Total Assets	\$	124,208	•	110,272	\$	7,990	φ		
Liabilities									
Contingent consideration	\$	6,137	\$	-	\$	-	\$	6,137	
Derivative instruments - cash flow hedges		17,331		-		17,331		-	
Total Liabilities	\$	23,468	\$	-	\$	17,331	\$	6,137	
		Total carrying ulue as of	Fair Value Measurements U Inputs Considered as						
	J	lune 30, 2019		Level I		Level 2	I	evel 3	
Assets		2017		20,001		307072			
Equity securities (1)	\$	38,219	\$	38,219	\$	-	\$	-	
Certificates of deposit (2)		26,928		26,928		-		-	
Total Assets	\$	65,147	\$	65,147	\$	-	\$	-	
Liabilities									
Contingent consideration		12,600						12,600	
Derivative instruments - cash flow hedges		12,458				12,458)•	
Total Liabilities	\$	25,058	\$	-	\$	12,458	\$	12,600	

(1) Included in available-for-sale investments on the balance sheet. The cost basis in the Company's investment in CCXI at June 30, 2020 and June 30, 2019 was \$6.6 million and \$18.8 million respectively. The Company has a warrant to purchase additional CCXI equity shares which was valued at \$8.0 million as of June 30, 2020. The fair value of the warrant as of June 30, 2019 was not material.

(2) Included in available-for-sale investments on the balance sheet. The certificate of deposits have contractual maturity dates within one year.

Fair value measurements of available for sale securities

Available for sale securities excluding warrants are measured at fair value using quoted market prices in active markets for identical assets and are therefore classified as Level *1* assets. The Company's warrant to purchase additional shares at a specified future price was valued using a Black-Scholes model with observable inputs in active markets and therefore was classified as a Level *2* asset.

Fair value measurements of derivative instruments

In October 2018, the Company entered into forward starting swaps designated as cash flow hedges on outstanding debt. The forward starting swaps reduce the variability of cash flow payments for the Company by converting the variable interest rate on the Company's long-term debt described in Note 6 to that of a fixed interest rate. Accordingly, as part of the forward starting swaps, the Company will exchange, at specified intervals, the difference between floating and fixed interest amounts based on an initial \$380 million of notional principal amount, with the notional amount decreasing by \$100 million in October, 2020, \$80 million in October 2021, and \$200 million in October 2022. The change in the fair value of the designated hedged instrument is reported as a component of other comprehensive income and reclassified into interest expense over the corresponding term of the cash flow hedge. The Company reclassified \$3.5 million, net of taxes, out of other comprehensive income into interest expense during the fiscal year ended June 30, 2020. In June 2020, the Company de-designated \$80 million of the notional amount set to expire in October 2020. The change in fair value of the dedesignated notional hedged amount was not material as of June 30, 2020. The net loss associated with the dedesignated portion of the derivative instrument was not reclassified into earnings based on the amount of probable variable interest payments to occur within a two month time period of the forecasted hedged transaction. The liability related to the derivative instrument was recorded within Other long-term liabilities on the Consolidated Balance Sheet. The instrument was valued using observable market inputs in active markets and therefore classified as a Level 2 liability.

Fair value measurements of contingent consideration

In connection with the ExosomeDx, Quad, and B-Mogen acquisitions the Company is required to make contingent consideration payments of up to \$325.0 million, \$51.0 million, and \$38.0 million respectively. The contingent consideration agreement with ExosomeDx was based on achieving certain EBITA thresholds, the contingent agreement with Quad is based on meeting certain product development milestones and revenue thresholds. The preliminary fair value of the liabilities for the contingent payments recognized upon the acquisition as part of the purchase accounting opening balance sheet totaled \$14.6 million (\$3.8 million for ExosomeDx, \$5.3 million for Quad, and \$5.5 million for B-Mogen) as discussed in Note 4. The preliminary fair value of the development milestone payments was estimated by discounting the probability-weighted contingent payments expected to be made to present value. Assumptions used in these calculations were probability of success, duration of the earn-out, and discount rate. The preliminary fair value for the EBITA and revenue milestone payments was determined using a Monte Carlo simulation-based model discounted to present value. Assumptions used in these calculations are units sold, expected revenue, expected expenses, discount rate and various probability factors.

During the fourth quarter of fiscal 2020, the Company's obligation for potential contingent consideration payments related to the ExosomeDx acquisition were relieved as part of the Company's escrow settlement with the former shareholders of ExosomeDx. As the result of this settlement, the Company reversed an accrual for the fair value of the contingent liability at the date of settlement. The ultimate settlement of contingent consideration liabilities for the Quad and B-Mogen acquisitions could deviate from current estimates based on the actual results of the financial measures described above. This liability is considered to be a Level 3 financial liability that is re-measured each reporting period. The change in fair value of contingent consideration for these acquisitions is included in general and administrative expense.

The following table presents a reconciliation of the liability measured at fair value on a recurring basis using significant unobservable inputs (Level 3) (in thousands):

	June 30,						
	2020			2019			
Fair value at the beginning of period	\$	12,600	\$	-			
Purchase price contingent consideration (Note 4)		-		14,600			
Payments		(4,358)		-			
Gain on escrow settlement		(1,200)					
Change in fair value of contingent consideration		(905)		(2,000)			
Contingent consideration payable	\$	6,137	\$	12,600			

Fair value measurements of other financial instruments – The following methods and assumptions were used to estimate the fair value of each class of financial instrument for which it is practicable to estimate fair value.

Cash and cash equivalents, certificates of deposit, accounts receivable, and accounts payable – The carrying amounts reported in the consolidated balance sheets approximate fair value because of the short-term nature of these items.

Long-term debt – The carrying amounts reported in the consolidated balance sheets for the amount drawn on our line-of-credit facility and long-term debt approximates fair value because our interest rate is variable and reflects current market rates.

Note 6. Debt and Other Financing Arrangements:

On August 1, 2018, the Company entered into a new uncollateralized revolving line-of-credit and term loan governed by a Credit Agreement (the Credit Agreement). The Credit Agreement provides for a revolving credit facility of \$600.0 million, which can be increased by an additional \$200.0 million subject to certain conditions, and a term loan of \$250.0 million. Borrowings under the Credit Agreement may be used for working capital and expenditures of the Company and its subsidiaries, including financing permitted acquisitions. Borrowings under the Credit Agreement bear interest at a variable rate. The current outstanding debt is based on the Eurodollar Loans term for which the interest rate is calculated as the sum of LIBOR plus an applicable margin. The applicable margin is determined for the total leverage ratio of the Company and updated on a quarterly basis. The annualized fee for any unused portion of the credit facility is currently 15 basis points. The Company has recorded \$12.5 million of our outstanding borrowings under the Credit Agreement as a current liability in our Consolidated Balance sheet, which represents our required quarterly debt payments to be made in fiscal year 2021.

The Credit Agreement matures on August 1, 2023 and contains customary restrictive and financial covenants and customary events of default. At the closing on August 1, 2018 the company borrowed \$250.0 million under the term loan and \$330.0 million under the revolving credit facility. As of June 30, 2020 and 2019, the outstanding balance under the Credit Agreement was \$357 million and \$505.2 million respectively.

Note 7. Leases:

As a lessee, the company leases offices, labs, and manufacturing facilities, as well as vehicles, copiers, and other equipment. The Company adopted ASU No. 2016-02 and related standards (collectively ASC 842, *Leases*), which replaced previous lease accounting guidance, on July 1, 2019.

The Company recognizes operating lease expense on a straight-line basis over the lease term. Operating lease right-of-use assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. The discount rate used to calculate present value is the Company's incremental borrowing rate or, if available, the rate implicit in the lease. The Company determines the incremental borrowing rate for each lease based primarily on its lease term and the economic environment of the applicable country or region. During fiscal year 2020, the Company recognized \$3.4 million in variable lease expense in the Consolidated Statements of Earnings and Comprehensive Income. During fiscal year 2020, the Company also recognized \$13.0 million relating to fixed lease expense in the Consolidated Statements of Earnings and Comprehensive Income.

The following table summarizes the balance sheet classification of the Company's operating leases, amounts of right of use assets and lease liabilities, the weighted average remaining lease term, and the weighted average discount rate for the Company's operating leases (asset and liability amounts are in thousands):

	Balance Sheet Classification	As of: June 30, 2020	
Operating leases: Operating lease right of use assets	Right of Use Asset	\$ 71,465	
Current operating lease liabilities	Operating lease liabilities current	\$ 9,535	
Noncurrent operating lease liabilities Total operating lease liabilities	Operating lease liabilities	\$ 67,248 76,783	
Weighted average remaining lease term (in years):		8.72	
Weighted average discount rate:		4.40%	

The following table summarizes the cash paid for amounts included in the measurement of operating lease liabilities and right of use assets obtained in exchange for new operating lease liabilities for the year ended June 30, 2020 (in thousands):

	For the year ended June 30, 2020
Cash amounts paid on operating lease liabilities(1)	\$ 12,763
Right of use assets obtained in exchange for lease liabilities	1,758

(1) Total cash paid for the Company's operating leases during the year ended June 30, 2020 include cash amounts paid on operating lease liabilities and variable lease expenses. Cash flow impacts from right of use assets and lease liabilities are presented net on the cash flow statement in changes in other operating activity.

The following table summarizes payments by date for the Company's operating leases, which is then reconciled to our total lease obligation (in thousands):

	O	e 30, 2020 perating Leases
2021	\$	12,590
2022		12,113
2023		11,296
2024		10,317
2025		9,388
Thereafter		37,316
Total	\$	93,020
Less: Amounts representing interest		16,237
Total lease obligations		76,783

Certain leases include one or more options to renew, with terms that extend the lease term up to five years. The Company includes option to renew the lease as part of the right of use lease asset and liability when it is reasonably certain the Company will exercise the option. In addition, certain leases contain fair value purchase and termination options with an associated penalty. In general, the Company is not reasonably certain to exercise such options.

Disclosures related to periods prior to adoption of new lease standard:

At June 30, 2019, aggregate net minimum rental commitments under non-cancelable leases having an initial or remaining term of more than one year are payable as follows (in thousands):

	(Dperating Leases
2020	\$	13,707
2021		13,469
2022		13,154
2023		12,716
2024		11,392
Thereafter		51,895
Total	\$	116,333

Total rent expense was approximately \$12.9 million, \$10.8 million, and \$9.8 million for the years ended June 30, 2019, 2018, and 2017, respectively.

Note 8. Supplemental Equity and Accumulated Other Comprehensive Income (loss):

Supplemental Equity

The Company has declared cash dividends per share of \$1.28 in each of the full fiscal years ended June 30, 2020, June 30, 2019, and June 30, 2018. During the years ended June 30, 2020 and June 30, 2019, the Company repurchased 279,381 shares at an average share price of \$179.37 and 95,000 shares at an average share price of \$162.15, respectively. The Company's accounting policy is to record the portion of share repurchases in excess of the par value entirely in retained earnings. During fiscal year 2020, the Company recorded (\$0.4) million within the Consolidated Statements of Shareholders' Equity for the surrender and retirement of stock to exercise option due to net settlement stock options exercises.

Accumulated Other Comprehensive Income (loss)

Changes in accumulated other comprehensive income (loss), net of tax, at June 30 consists of (in thousands):

		realized Gains					
	6	Losses)			U	nrealized	
	`	on		Foreign		Gains	
	Aı	vailable-	(Currency	(L	osses) on	
	f	or-Sale	Τr	anslation	$D\epsilon$	erivatives	
	Inv	vestments	Ac	ljustments	In	struments	 Total
Balance June 30, 2017	\$	18,989	\$	(67,924)	\$	-	\$ (48,935)
Other comprehensive income (loss) before reclassifications		18,108		(1,572)		-	16,536
Amounts reclassified from accumulated other comprehensive loss to							
income		(12,415)		_		_	 (12,415)
Balance June 30, 2018	\$	24,682	\$	(69,496)	\$	-	\$ (44,814)
Cumulative effect adjustment for adoption for ASU 2018-02		2,371		-		-	2,371
Cumulative effect adjustment for adoption for ASU 2016-01		(27,053)		-		-	(27,053)
Other comprehensive income (loss) before reclassifications		-		(4,487)		(9,537)	 (14,024)
Balance June 30, 2019	\$	-	\$	(73,983)	\$	(9,537)	\$ (83,521)
Other comprehensive income (loss) before reclassifications		-		(9,963)		(7,179)	(17,142)
Reclassification from loss on derivatives to interest expense, net of taxes(1)		-		-		3,464	3,464
Balance June 30, 2020	\$	-	\$	(83,946)	\$	(13,253)	\$ (97,199)

(1) Gains (losses) on the interest swap will be reclassified into interest expense as payments on the derivative agreement are made. The Company reclassified (\$4,503) to interest expense and a related tax benefit tax of \$1,040 during fiscal 2020. Approximately \$7,035 of the \$13,253 will be reclassified in the 12 months subsequent to June 30, 2020. The Company had deferred tax benefits of \$4,058 and \$2,921 included in the accumulated other comprehensive income loss as of June 30, 2020 and June 30, 2019, respectively.

Note 9. Earnings Per Share:

The following table reflects the calculation of basic and diluted earnings per share (in thousands, except per share amounts):

	2020	Year Ei	nded June 30, 2019	2018
Earnings per share – basic:				
Net income	\$ 229,296	\$	96,072	\$ 126,150
Income allocated to participating securities	(224)		(105)	(108)
Income available to common shareholders	\$ 229,072	\$	95,967	\$ 126,042
Weighted-average shares outstanding – basic	 38,201		37,781	 37,476
Earnings per share – basic	\$ 6.00	\$	2.54	\$ 3.36
Earnings per share – diluted:				
Net income	\$ 229,296	\$	96,072	\$ 126,150
Income allocated to participating securities	(224)		(105)	(108)
Income available to common shareholders	\$ 229,072	\$	95,967	\$ 126,042
Weighted-average shares outstanding – basic	 38,201		37,781	 37,476
Dilutive effect of stock options and restricted stock units	1,200		1,111	579
Weighted-average common shares outstanding - diluted	 39,401		38,892	38,055
Earnings per share – diluted	\$ 5.82	\$	2.47	\$ 3.31

Basic net income per common share is calculated based on the weighted average number of common shares outstanding during the period. Diluted net income per common share is computed by dividing net income by the weighted average number of common and potentially dilutive common shares outstanding during the period. Potentially dilutive common shares of our stock result from dilutive common stock options and restricted stock units. We use the treasury stock method to calculate the weighted-average shares used in the diluted earnings per share computation. Under the treasury stock method, the proceeds from exercise of an option, the amount of compensation cost, if any, for future service that we have not yet recognized, and the amount of estimated tax benefits

that would be recorded in paid-in capital, if any, when the option is exercised are assumed to be used to repurchase shares in the current period.

The dilutive effect of stock options in the above table excludes all options for which the aggregate exercise proceeds exceeded the average market price for the period. The number of potentially dilutive option shares excluded from the calculation was 0.9 million, 1.3 million, and 0.9 million for the fiscal years ended June 30, 2020, 2019 and 2018, respectively.

Note 10. Share-based Compensation and Other Benefit Plans:

The cost of employee services received in exchange for the award of equity instruments is based on the fair value of the award at the date of grant. Compensation cost is recognized using a straight-line method over the vesting period and is net of estimated forfeitures. Stock option exercises and stock awards are satisfied through the issuance of new shares.

Equity incentive plan: The Company's Second Amended and Restated 2010 Equity Incentive Plan (the Second A&R 2010 Plan) provides for the granting of incentive and nonqualified stock options, restricted stock, restricted stock units, performance shares, performance units and stock appreciation rights. There are 7.5 million shares of common stock authorized for grant under the Second A&R 2010 Plan. At June 30, 2020, there were 1.9 million shares of common stock available for grant under the Second A&R 2010 Plan. The maximum term of incentive options granted under the Second A&R 2010 Plan is ten years. The Second A&R 2010 Plan amended and restated the Company's Amended and Restate 2010 Equity Incentive Plan (the A&R 2010 Plan). The A&R 2010 Plan replaced the Company's 1998 Nonqualified Stock Option Plan (the 1998 Plan). The Second A&R 2010 Plan and the 1998 Plan (collectively, the Plans) are administered by the Board of Directors and its Executive Compensation Committee, which determine the persons who are to receive awards under the Plans, the number of shares subject to each award and the term and exercise price of each award. The number of shares of common stock subject to outstanding awards as of June 30, 2020 under the Second A&R 2010 Plan were 3.6 million. For June 30, 2019 under the Second A&R 2010 Plan and the 1998 Plan were 3.6 million and 20,000, respectively. On April 26, 2018 the Executive Compensation Committee of the Board of Directors approved a modification to the Plans. The modification implements a new retirement policy that permits retirees to continue vesting in certain time-based stock options granted during employment, resulting in accelerated stock compensation expense for those employees meeting the definition of retirement eligible. This modification resulted in an additional \$8.3 million of expense during fiscal year 2018 and affected all employees who participate in the plan.

The fair values of options granted under the Plans were estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions used:

	Year Ended June 30,					
	2020	2019	2018			
Dividend yield	0.67%	0.74%	1.1%			
Expected volatility	22% - 249	<i>6</i> 20% - 23%	21% - 24%			
Risk-free interest rates	1.3% - 1.9	% 2.5% - 3.0%	1.7% - 2.8%			
Expected lives (years)	4.0	4.1	4.7			

The dividend yield is based on the Company's historical annual cash dividend divided by the market value of the Company's common stock. The expected annualized volatility is based on the Company's historical stock price over a period equivalent to the expected life of the option granted. The risk-free interest rate is based on U.S. Treasury constant maturity interest rates with a term consistent with the expected life of the options granted.
Stock option activity under the Plans for the three years ended June 30, 2020, consists of the following (shares in thousands):

	Number of Shares (in thousands)		Weighted Average Exercise Price		Average Exercise		Average Exercise		Average Exercise		Average Exercise		gregate atrinsic Value aillions)	Weighted Average Contractual Life (years)
Outstanding at June 30, 2017	2,821	\$	98.42											
Granted	1,087		120.67											
Forfeited	(252)		86.62											
Exercised	(204)		111.51											
Outstanding at June 30, 2018	3,452	\$	105.17											
Granted	917		173.89											
Forfeited	(330)		129.93											
Exercised	(383)		95.29											
Outstanding at June 30, 2019	3,656	\$	121.16											
Granted	752		190.80											
Forfeited	(56)		95.97											
Exercised	(743)		157.45											
Outstanding at June 30, 2020	3,609	\$	140.28	\$	446.7	4.3								
Exercisable at June 30, 2018:	1,151		90.75											
Exercisable at June 30, 2019:	1,467		98.70											
Exercisable at June 30, 2020:	1,564		112.60	\$	236.8	3.3								

The weighted average fair value of options granted during fiscal 2020, 2019, and 2018 was \$37.01, \$34.66, and \$22.07 respectively. The total intrinsic value of options exercised during fiscal 2020, 2019, and 2018 were \$99.3 million, \$159.0 million, and \$10.6 million, respectively. The total fair value of options vested during fiscal 2020, 2019, and 2018 were \$71.1 million, \$31.7 million, and \$8.8 million, respectively.

Restricted common stock activity under the Plans for the three years ended June 30, 2020, consists of the following (units in thousands):

	Number of Shares (in thousands)	Av	Weighted erage Grant Date Fair Value	Weighted Average Remaining Contractual Term (years)
Unvested at June 30, 2017	32	\$	105.80	
Granted	20		125.05	
Vested	(17)		104.66	
Forfeited	-		-	
Unvested at June 30, 2018	35	\$	117.39	
Granted	15		177.93	
Vested	(20)		116.76	
Forfeited	-		-	
Unvested at June 30, 2019	30	\$	147.94	
Granted	15		193.48	
Vested	(18)		142.12	
Forfeited	-		-	
Unvested at June 30, 2020	28	\$	177.20	6.14

The total fair value of restricted shares that vested was \$2.5 million for fiscal 2020, \$2.3 million for fiscal 2019, and \$1.7 million for fiscal 2018.

Restricted stock unit activity under the Plans for the three years ended June 30, 2020, consists of the following (units in thousands):

	Number of Units (in thousands)	Ave	Veighted rage Grant Date Fair Value	Weighted Average Remaining Contractual Term (years)
Outstanding at June 30, 2017	111	\$	106.39	
Granted	71		129.99	
Vested	(16)		95.46	
Forfeited	(18)		115.01	
Outstanding at June 30, 2018	148	\$	117.95	
Granted	56		170.96	
Vested	(28)		110.86	
Forfeited	(36)		143.72	
Outstanding at June 30, 2019	139	\$	134.17	
Granted	31		192.08	
Vested	(51)		111.07	
Forfeited	(3)		155.6	
Outstanding at June 30, 2020	116	\$	159.25	5.20

The total fair value of restricted stock units that vested was \$5.7 million for fiscal 2020, \$3.1 million for fiscal 2019, and \$1.6 million for fiscal 2018. The restricted stock units vest over a three-year period.

Stock-based compensation cost of \$32.4 million, \$32.3 million, and \$28.2 million was included in selling, general and administrative expense in fiscal 2020, 2019 and 2018, respectively. Additionally, Stock-based compensation costs of \$1.6 million was included in cost of goods sold in 2020. As of June 30, 2020, there was \$25.3 million of unrecognized compensation cost related to non-vested stock options, non-vested restricted stock units and non-vested restricted stock which will be expensed in fiscal 2021 through 2023 using a 3% forfeiture rate. The weighted average period over which the compensation cost is expected to be recognized is 1.9 years.

Employee stock purchase plan: In fiscal year 2015, the Company established the Bio-Techne Corporation 2014 Employee Stock Purchase Plan (ESPP), which was approved by the Company's shareholders on October 30, 2014, and which is designed to comply with IRS provisions governing employee stock purchase plans. 200,000 shares were allocated to the ESPP. The Company recorded expense of \$0.4 million, \$0.5 million, and \$0.3 million for the ESPP in fiscal 2020, 2019, and 2018, respectively.

Profit sharing and savings plans: The Company has profit sharing and savings plans for its U.S. employees, which conform to IRS provisions for 401(k) plans. The Company makes matching contributions to the Plan. The Company has recorded an expense for contributions to the plans of \$3.2 million, \$2.8 million, and \$2.5 million for the years ended June 30, 2020, 2019, and 2018, respectively. The Company operates defined contribution pension plans for its U.K. employees. The Company has recorded an expense for contributions to the plans of \$1.4 million for each of the years ended June 30, 2020, 2019, and 2018.

Performance incentive programs: In fiscal 2020, under certain employment agreements and a Management Incentive Plan available to executive officers and certain management personnel, the Company recorded cash bonuses of \$10.5 million, granted options for 751,499 shares of common stock, issued 15,398 restricted common shares and 30,858 restricted stock units. In fiscal 2019 and fiscal 2018, the Company recorded cash bonuses of \$9.3 million and \$7.2 million, granted options for 618,898 and 553,750 shares of common stock, and issued 11,279 and 14,194 restricted common stock shares and 25,903 and 35,174 restricted stock, respectively.

Note 11. Income Taxes:

Income before income taxes was comprised of the following (in thousands):

	Year Ended June 30,								
		2020				2018			
Domestic	\$	245,365	\$	64,081	\$	81,557			
Foreign		31,112		47,934		44,395			
Income before income taxes	\$	276,477	\$	112,015	\$	125,952			

The provision for income taxes consisted of the following (in thousands):

	Year Ended June 30,								
	2020			2019		2018			
Taxes on income consist of:									
Currently tax provision:									
Federal	\$	18,976	\$	16,090	\$	28,416			
State		6,018		544		5,315			
Foreign		8,580		13,329		11,983			
Total current tax provision		33,574		29,963		45,714			
Deferred tax provision:									
Federal		14,074		(6,903)		(40,378)			
State		2,055		(3,977)		(1,381)			
Foreign		(2,522)		(3,142)		(4,154)			
Total deferred tax provision		13,607		(14,021)		(45,912)			
Total income tax provision	\$	47,181	\$	15,943	\$	(198)			

The Company's effective income tax rate for fiscal 2020 was 17.1% for fiscal 2020 vs 14.2% in the prior year. The change in the effective tax rate for fiscal 2020 and 2019 were driven by the changes in the net discrete tax benefits \$19.4 million and \$12.7 million, respectively.

The Company's effective income tax rate for fiscal 2019 was 14.2% vs (0.2%) in the prior year. The change in the effective tax rate for fiscal 2019 and 2018 was driven by changes in net discrete tax benefits of \$12.7 million and \$34.4 million for fiscal year 2019 and 2018, respectively.

The Company's discrete tax benefits in fiscal 2020 primarily related to share-based compensation excess tax benefits of \$17.7 million.

The Company's discrete tax benefits in fiscal 2019 primarily related to share-based compensation excess tax benefits of \$7.2 million, \$3.2 million related to fiscal 2019 acquisitions, and \$2.0 million for tax refunds relating to certain state apportionments. The prior fiscal year was benefited from acquisition payments made to employees and third parties, which were deductible for tax purposes.

In fiscal 2018, the Company recognized net discrete tax benefits of \$34.4 million. The primary driver in fiscal 2018 discrete tax benefits was a discrete net tax benefit of \$33.0 million related to the Tax Act (as described further below). This net tax benefit consisted of \$36.5 million due to the re-measurement of the Company's deferred tax accounts to reflect the U.S. federal corporate tax rate reduction impact to our net deferred tax balances offset by expense for the federal transition tax of \$3.3 million. Also impacting the Company's fiscal 2018 effective tax rate was a \$2.2 million tax benefit related to stock option exercises offset by a net discrete tax expense of \$4.2 million related to the revaluation of contingent consideration, which is not a tax deductible expense.

On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Act") was enacted, which reduced the U.S. federal corporate tax rate from 35% to 21%, required companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and created new taxes on certain foreign sourced earnings. The Tax Act added many new provisions including changes the deduction for executive compensation, a tax on global intangible low taxed income ("GILTI"), the base erosion anti abuse tax ("BEAT") and a deduction for foreign derived intangible income ("FDII").

The Company continues to monitor newly enacted regulations, clarifications, and changes in guidance the "Tax Act", which was enacted on December 22, 2017. The Company recognizes changes in legislation in the period enacted, which may have a material impact on our effective tax rate in future periods.

The following is a reconciliation of the federal tax calculated at the statutory rate of to the actual income taxes provided:

	Year		
	2020	2019	2018
Income tax expense at federal statutory rate	21.0%	21.0%	28.1%
State income taxes, net of federal benefit	2.3%	0.8%	2.5%
Qualified production activity deduction	-%	-%	(2.4)%
Research and development tax credit	(0.7)%	(1.6)%	(1.4)%
Contingent consideration adjustment	(0.2)%	(0.4)%	3.3%
Foreign tax rate differences	(0.2)%	0.2%	(3.5)%
Option exercises	(5.7)%	(5.8)%	(1.8)%
Domestic tax legislation changes	-	1.7%	(26.2)%
State apportionment changes	-	(2.3)%	-
Executive compensation limitations	1.6%	0.4%	-
Other, net	(1.0)%	0.2%	1.2%
Effective tax rate	17.1%	14.2%	(0.2)%

Deferred taxes on the Consolidated Balance Sheets consisted of the following temporary differences (in thousands):

	June 30	
	 2020	2019
Inventory	\$ 7,769 \$	7,743
Net operating loss carryovers	25,707	33,294
Tax credit carryovers	9,568	9,640
Excess tax basis in equity investments	2,423	3,433
Deferred compensation	10,755	10,333
Derivative - cash flow hedge	4,058	2,921
Lease liability	16,256	-
Other	4,340	5,207
Valuation allowance	(7,523)	(6,974)
Deferred tax assets	 73,353	65,597
Net unrealized gain on available-for-sale investments	(19,102)	(4,542)
Intangible asset amortization	(128,279)	(141,998)
Depreciation	(10,764)	(8,371)
Right of use asset	(15,118)	-
Other	(1,180)	(440)
Deferred tax liabilities	 (174,443)	(155,351)
Net deferred tax liabilities	\$ (101,090) \$	(89,754)

A deferred tax valuation allowance is required when it is more likely than not that all or a portion of deferred tax assets will not be realized. The valuation allowance as of June 30, 2020 was \$7.5 million compared to \$7.0 million in the prior year.

As of June 30, 2020, the \$7.5 million valuation allowance relates to certain foreign and state tax net operating loss and state credit carryforwards that existed at the date the Company acquired Quad, Exosome, ACD, Novus, ProteinSimple and CyVek as well as immaterial amounts generated after the acquisitions. The Company believes it is more likely than not that these tax carryovers will not be realized.

As of June 30, 2020, the Company has federal operating loss carryforwards of approximately \$64.2 million and state operating loss carryforwards of \$130.6 million from its acquisitions of Quad, Exosome, ACD, ProteinSimple and CyVek, which are not limited under IRC Section 382. As of June 30, 2020, the Company has foreign net operating loss carryforwards of \$13.7 million. The net operating loss carryforwards expire between fiscal 2021 and 2036. The Company has a deferred tax asset of \$20.2 million, net of the valuation allowance discussed above, related to the net operating loss carryforwards are carryforwards of \$5.0 million and \$5.7 million, respectively. The federal tax credit carryforwards expire between 2028 and 2038. The majority of the state credit carryforwards have no expiry date. The Company has a deferred tax asset of \$7.5 million, net of the valuation allowance discussed above, related to the tax credit carryforwards.

The Company has not recognized a deferred tax liability for unremitted foreign earnings of approximately \$186 million from its foreign operations because its subsidiaries have invested or will invest the undistributed earnings indefinitely. The transition tax included as part of the Tax Act resulted in the previously untaxed foreign earnings being included in the federal and state fiscal 2018 taxable income. The one-time transition tax was based on certain foreign earnings for which earnings have been previously indefinitely reinvested as well as the amount of earnings held in cash and other specified assets. No additional income taxes have been provided for cumulative unremitted foreign earnings as at this time our intention with respect to unremitted foreign earnings is to continue to indefinitely reinvest outside the U.S. those earnings needed for working capital or additional foreign investment. If there are policy changes, we would record applicable taxes at that time.

We continue to analyze our global working capital requirements and the potential tax liabilities that would be incurred if the non-U.S. subsidiaries distribute cash to the U.S. parent, which include local country withholding tax and potential U.S. state taxation. In addition, we anticipate that further guidance from the IRS and US Treasury related to the Tax Act could impact the amount of any related taxes. Therefore, it is not practical to estimate the amount of the deferred income tax liabilities related to investments in these foreign subsidiaries.

The following is a reconciliation of the beginning and ending balance of unrecognized tax benefits (in thousands):

	Year Ended June 30,									
		2020		2019		2018				
Beginning balance	\$	5,032	\$	1,947	\$	1,747				
Additions due to acquisitions		-		900		-				
Additions for tax positions of current year		306		2,185		35				
Closure of tax years		(1,041)		-		-				
Tax reform		-		-		165				
Ending balances	\$	4,297	\$	5,032	\$	1,947				

The Company does not believe it is reasonably possible that the total amounts of unrecognized tax benefits will significantly increase in the next twelve months. The Company files income tax returns in the U.S. federal and certain state tax jurisdictions, and several jurisdictions outside the U.S. The Company's federal returns are subject to tax assessment for 2017 and subsequent years. State and foreign income tax returns are generally subject to examination for a period of three to five years after filing of the respective return. The state impact of any federal changes remains subject to examination by various states for a period of up to one year after formal notification to the states.

Note 12. Segment Information:

The Company operates under two operating segments, Protein Sciences and Diagnostics and Genomics.

The Company's Protein Sciences segment is comprised of the Reagent Solutions division and Analytical Solution division. These businesses manufacture consumables used for conducting laboratory experiments by both industry and academic scientists within the biotechnology and biomedical life science fields. No customer in the Protein Sciences segment accounted for more than 10% of the segment's net sales for the years ended June 30, 2020, 2019, and 2018.

The Company's Diagnostics and Genomics is comprised of the Diagnostics Reagents division and the Genomics division. The Diagnostics Reagents division develops and manufactures a range of controls and calibrators used with diagnostic equipment and as proficiency testing tools, as well as other reagents incorporated into diagnostic kits. The Genomics division consists of Genomics and Exosome products and sells a portfolio of clinical molecular diagnostic oncology assays, as well as tissue-based in-situ hybridization assays for research in clinical use. No customer in the Diagnostics and Genomics segment accounted for more than 10% of the segment's net sales for the fiscal years ended June 30, 2020, 2019, and 2018.

There are no concentrations of business transacted with a particular customer or supplier or concentrations of revenue from a particular product or geographic area that would severely impact the Company in the near term.

Following is financial information relating to the operating segments (in thousands):

	Year Ended June 30,								
		2020		2019		2018			
Net sales:									
Protein Sciences	\$	555,352	\$	543,159	\$	482,378			
Diagnostics and Genomics		184,549		171,674		161,151			
Intersegment		(1,210)		(827)		(536)			
Consolidated net sales	\$	738,691	\$	714,006	\$	642,993			
Operating Income:									
Protein Sciences	\$	234,929	\$	240,919	\$	209,880			
Diagnostics and Genomics		14,965		10,079		35,496			
Segment operating income		249,894		250,998		245,376			
Costs recognized upon sale of acquired inventory		-		(3,739)		(2,455)			
Amortization of acquired intangible assets		(60,865)		(58,550)		(46,983)			
Gain on escrow settlement		7,169		-		-			
Acquisition related expenses		(416)		(2,282)		(24,429)			
Restructuring costs		(87)		-		(376)			
Stock-based compensation		(34,262)		(33,057)		(28,240)			
Corporate general, selling and administrative expenses		(4,015)		(6,651)		(6,715)			
Consolidated operating income	\$	157,419	\$	146,719	\$	136,178			

The Company has some integrated facilities that serve multiple segments. As such, asset and capital expenditure information by operating segment has not been provided and is not available, since the Company does not produce or utilize such information internally. In addition, although depreciation and amortization expense is a component of each operating segment's operating results, it is not discretely identifiable.

The Company has disclosed sales by geographic area based on the location of the customer or distributor in Note 2. The Company has disclosed dis-aggregated product and service revenue by consumables, instruments, and services in Note 2. The Company considers total instrument and total service revenue to represent similar groups of products in the fiscal years presented. The Company considered our consumables sold in the Protein Sciences and Diagnostics and Genomics segments to represent different groups of products and therefore have separately disclosed the related consumables revenue (in thousands) :

	Year Ended June 30,								
	2020			2019		2018			
Consumables revenue - Protein Sciences	\$	431,052	\$	430,655	\$	384,350			
Consumables revenue - Diagnostics and Genomics		171,590		158,324		150,388			
Total consumable revenue	\$ 602,642			588,979	\$ 534,738				

The following is financial information relating to geographic areas (in thousands):

		Year ended June 30,							
Long-lived assets:			2019						
United States and Canada	\$	162,039	\$	138,016					
Europe		13,120		14,439					
Asia		1,670		1,584					
Total long-lived assets	\$	176,829	\$	154,039					
Intangible assets:									
United States and Canada	\$	499,875	\$	556,951					
Europe		12,349		16,637					
Asia		4,321		5,841					
Total intangible assets	\$	516,545	\$	579,429					

Long-lived assets are comprised of land, buildings and improvements and equipment, net of accumulated depreciation and other assets.

Note 13. Quarterly Financial Data (unaudited):

(in thousands, except per share data)

2020 Net sales Cost of sales Net earnings1	\$ \$ \$	First Quarter 183,243 64,829 14,398		Second <u>Quarter</u> 184,934 63,531 119,623	\$ \$ \$	Third Quarter 194,680 64,617 36,432	\$ \$ \$	Fourth Quarter 175,834 62,520 58,847	\$ \$ \$	Year 738,691 255,497 229,296
(1) - Amounts do not total due to rounding										
Earnings per common share: Basic Diluted	\$ \$	0.38 0.37	\$ \$	3.13 3.02	\$ \$	0.95 0.92	\$ \$	1.54 1.48	\$ \$	6.00 5.82
Weighted average common shares outstanding: Basic Diluted		38,032 39,253		38,167 39,550		38,303 39,435		38,304 39,700		38,201 39,401
(in thousands, except per share data)										
		First		Second		Third		Fourth		
2019		Quarter	-	Quarter	_	Quarter	_	Quarter	-	Year
Net sales	\$	162,970	\$	174,510	\$	184,861	\$	191,664	\$	714,006
Cost of sales	\$	55,367	\$	61,492	\$	60,251	\$	63,405	\$	240,515
Net earnings	\$	17,403	\$	17,556	\$	44,654	\$	16,459	\$	96,072
Earnings per common share:										
Basic	\$	0.46	\$	0.46	\$	1.18	\$	0.43	\$	2.54
Diluted	\$	0.45	\$	0.45	\$	1.15	\$	0.42	\$	2.47
Weighted average common shares outstanding:										
Basic		37,697		37,766		37,772		37,881		37,781
Diluted		38,813		38,748		38,861		39,135		38,892

Note 14. Subsequent Events:

None

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors Bio-Techne Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Bio-Techne Corporation and subsidiaries (the Company) as of June 30, 2020 and 2019, the related consolidated statements of earnings and comprehensive income, shareholders' equity, and cash flows for each of the years in the three-year period ended June 30, 2020, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of June 30, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended June 30, 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended June 30, 2020, in conformity with U.S. generally accepted accounting principles.

We also have 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 June 30, 2020, 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 August 26, 2020 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting for revenue as of July 1, 2018, due to the adoption of Accounting Standards Update 2014-09, *Revenue from Contracts with Customers* (Topic 606), and related amendments.

As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting for leases as of July 1, 2019, due to the adoption of Accounting Standards Update 2016-02, *Leases* (Topic 842) and related amendments.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated 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 consolidated 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 consolidated 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 consolidated 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 consolidated 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 consolidated 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 consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated 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.

Goodwill impairment analysis for the Exosome reporting unit

As discussed in Note 1 to the consolidated financial statements, the goodwill balance as of June 30, 2020 was \$728.3 million, of which \$105.4 million related to the Exosome reporting unit. The Company performs goodwill impairment testing on an annual basis and whenever events or changes in circumstances indicate that the carrying value of a reporting unit likely exceeds its fair value. This involves estimating the fair value of the reporting units using discounted cash flow models.

We identified the evaluation of the goodwill impairment analysis for the Exosome reporting unit as a critical audit matter. There was a high degree of subjectivity in applying and evaluating certain key assumptions used in the discounted cash flow model to estimate the fair value of the Exosome reporting unit. Specifically, the revenue growth rates and the discount rate were challenging to test as they represented subjective determinations of future market and economic conditions. Changes to those assumptions could have had a significant effect on the Company's assessment of the fair value of the goodwill.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the critical audit matter. This included controls related to the Company's determination of the estimated fair value of the Exosome reporting unit, including controls related to the:

- development of revenue growth rates
- selection of the discount rate

We performed sensitivity analyses over the revenue growth rate and discount rate assumptions to assess their impact on the Company's determination that the fair value of the Exosome reporting unit exceeded its carrying value. We evaluated the reasonableness of the Company's forecasted revenue growth rates for the Exosome reporting unit by comparing the growth assumptions to industry benchmarks and other industry related third-party data. We also compared the Company's historical revenue forecasts to actual results to assess the Company's ability to accurately forecast. In addition, we involved valuation professionals with specialized skills and knowledge, who assisted in:

- evaluating the discount rate used in the valuation, by comparing it against a discount rate range that was independently developed using publicly available market data for comparable entities, and
- testing the estimate of the Exosome reporting unit's fair value using the reporting unit's cash flow forecast and discount rate, and comparing the result to the Company's fair value estimate.

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

/s/ KPMG LLP

Minneapolis, Minnesota August 26, 2020

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors Bio-Techne Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited Bio-Techne Corporation and subsidiaries' (the Company) internal control over financial reporting as of June 30, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of June 30, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of *Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of June 30, 2020 and 2019, the related consolidated statements of earnings and comprehensive income, shareholders' equity, and cash flows for each of the years in the three-year period ended June 30, 2020, and the related notes (collectively, the consolidated financial statements), and our report dated August 26, 2020 expressed an unqualified opinion on those consolidated 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 Annual 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 of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included 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 the policies or procedures may deteriorate.

/s/ KPMG LLP

Minneapolis, Minnesota August 26, 2020

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) of the Securities Exchange Act of 1934 (the "Exchange Act"), management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated, as of the end of the period covered by this report, the effectiveness of our disclosure controls and procedures as defined in Exchange Act Rule 13a-15(e). The evaluation was based upon reports and certifications provided by a number of executives. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of June 30, 2020, our disclosure controls and procedures were effective.

(b) Management's Annual Report on Internal Control Over Financial Reporting

The 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 also includes those policies and procedures that:

- (i) Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company;
- (ii) 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
- (iii) 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 the policies or procedures may deteriorate.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

Under the supervision of the Audit Committee of the Board of Directors and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting using the criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our assessment and those criteria, our Chief Executive Officer and Chief Financial Officer concluded that our internal control over financial reporting was effective as of June 30, 2020.

The attestation report on our internal control over financial reporting issued by KPMG LLP appears in Item 8 of this report.

(c) Changes in Internal Control Over Financial Reporting

As previously announced, we acquired Quad on July 2, 2018, Exosome on August 1, 2018, and B-Mogen on June 4, 2019 and we have implemented our internal control structure over these and incorporated its operations into our assessment of internal control over financial reporting as of June 30, 2020.

There were no other changes in the Company's internal control over financial reporting during fiscal year 2020 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Other than "Executive Officers of the Registrant" which is set forth at the end of Item 1 in Part I of this report, the information required by Item 10 is incorporated herein by reference to the sections entitled "Election of Directors," "Principle Shareholders" and "Additional Corporate Governance Matters" in the Company's Proxy Statement for its 2020 Annual Meeting of Shareholders which will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days after the close of the fiscal year for which this report is filed.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 is incorporated herein by reference to the sections entitled "Election of Directors" and "Executive Compensation" in the Company's Proxy Statement for its 2020 Annual Meeting of Shareholders which will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days after the close of the fiscal year for which this report is filed.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS

The information required by Item 12 is incorporated by reference to the sections entitled "Principal Shareholders" and "Management Shareholdings" in the Company's Proxy Statement for its 2020 Annual Meeting of Shareholders which will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days after the close of the fiscal year for which this report is filed.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 13 is incorporated by reference to the sections entitled "Election of Directors" and "Additional Corporate Governance Matters" in the Company's Proxy Statement for its 2020 Annual Meeting of Shareholders which will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days after the close of the fiscal year for which this report is filed.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by Item 14 is incorporated herein by reference to the section entitled "Audit Matters" in the Company's Proxy Statement for its 2020 Annual Meeting of Shareholders which will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days after the close of the fiscal year for which this report is filed.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

A. (1) List of Financial Statements.

The following Consolidated Financial Statements are filed as part of this Annual Report on Form 10-K:

Consolidated Statements of Earnings and Comprehensive Income for the Years Ended June 30, 2020, 2019, and 2018

Consolidated Balance Sheets as of June 30, 2020 and 2019

Consolidated Statements of Shareholders' Equity for the Years Ended June 30, 2020, 2019, and 2018

Consolidated Statements of Cash Flows for the Years Ended June 30, 2020, 2019, and 2018

Notes to Consolidated Financial Statements for the Years Ended June 30, 2020, 2019, and 2018

Reports of Independent Registered Public Accounting Firm

A. (2) Financial Statement Schedules.

All financial statement schedules are omitted because they are not applicable, not material or the required information is shown in the Consolidated Financial Statements or Notes thereto.

A. (3) Exhibits.

EXHIBIT INDEX for Form 10-K for the 2020 Fiscal Year

Exhibit Number	Description
3.1	Amended and Restated Articles of Incorporation of the Companyincorporated by reference to Exhibit 3.1 of the Company's Form 10-Q dated February 9, 2015*
3.2	Third Amended and Restated Bylaws of the Companyincorporated by reference to Exhibit 3.1 of the Company's Form 8-K dated February 1, 2018*
4.1	Description of Capital Stock attached as Exhibit 4.1 hereto
10.1**	Management Incentive Planincorporated by reference to Exhibit 10.13 of the Company's Form 10-K for the year ended June 30, 2013*
10.2**	Second Amended and Restated 2010 Equity Incentive Planincorporated by reference to Exhibit 10.1 of the Company's Form 8-K dated October 26, 2017*
10.3**	Form of Time Vesting Restricted Stock Award Agreement.
10.4**	Form of Performance Vesting Restricted Stock Award Agreement.
10.5**	Form of Time Vesting Restricted Stock Unit Award Agreement.
10.6**	Form of Performance Vesting Restricted Stock Unit Award Agreement.
10.7**	Form of the Time Vesting Performance Unit Award Agreement.
10.8**	Form of Performance Vesting Performance Unit Award Agreement.
10.9**	Form of Time Vesting Incentive Stock Option Agreement

- 10.10** Form of Performance Vesting Incentive Stock Option Agreement.
- 10.11** Form of Employee Non-Qualified Stock Option Agreement.
- 10.12** Form of Director Non-Qualified Stock Option Agreement for Second Amended and Restated 2010 Equity Incentive Planincorporated by reference to Exhibit 10.2 of the Company's Form 8-K dated October 26, 2017*
- 10.13** Employment Agreement by and between the Company and Charles Kummeth--incorporated by reference to Exhibit 10.11 of the Company's Form 10-K dated September 7, 2017*
- 10.14** Form of Employment Agreement by and between the Company and Executive Officers of the Company other than the CEO--incorporated by reference to Exhibit 10.12 of the Company's Form 10-K dated September 7, 2017*
- 10.15** Form of Amendment No. 1 to Executive Employment Agreement incorporated by reference to Exhibit 10.15 of the Company's Form 10-Q dated May 11, 2020.
- 10.16 Credit Agreement by and among the Company, the Guarantors party thereto, the Lenders party thereto, and BMO Harris Bank N.A., as Administrative Agent, dated August 1, 2018--incorporated by reference to Exhibit 10.1 of the Company's Form 8-K dated August 2, 2018*
- 10.17** Form of Indemnification Agreement entered into with each director and executive officer of the Company--incorporated by reference to Exhibit 10.1 of the Company's Form 10-Q dated February 8, 2018*
- 10.18 Agreement and Plan of Merger by and among the Company, Aero Merger Sub Inc., Advanced Cell Diagnostics, Inc. and Fortis Advisors, LLC as the Securityholders' Representative, dated July 6, 2016--incorporated by reference to Exhibit 2.1 of the Company's Form 8-K dated July 7, 2016*
- 10.20 Development, Supply and Commercialization Agreement by and between the Company and Kantaro Biosciences, LLC dated May 18, 2020 (portions of which have been redacted as noted, subject to confidential treatment) incorporated by reference to Exhibit 10.1 of the Company's Form 8-K dated May 19, 2020*
- 21 Subsidiaries of the Company
- 23 Consent of KPMG LLP, Independent Registered Public Accounting Firm
- 31.1 Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1 Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 32.2 Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 101 The following financial statements from the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2020, formatted in Inline Extensible Business Reporting Language (iXBRL): (i) the Consolidated Statements of Earnings and Comprehensive Income, (ii) the Consolidated Balance Sheets, (iii) the Consolidated Statements of Shareholders' Equity, (iv) the Consolidated Statements of Cash Flows, and (v) Notes to the Consolidated Financial Statements.
- 104 Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

^{*} Incorporated by reference; SEC File No. 000-17272

^{**} Management contract or compensatory plan or arrangement

Exhibits for Form 10-K have not been included in this report. Exhibits have been filed with the Securities and Exchange Commission. Upon request to the Investor Relations Department, Bio-Techne Corporation will furnish, without charge, any such exhibits as well as copies of periodic reports filed with the Securities and Exchange Commission.

None.

ITEM 16. FORM 10-K SUMMARY

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.

BIO-TECHNE CORPORATION

Date: August 26, 2020

<u>/s/ Charles Kummeth</u> By: Charles Kummeth Its: President and CEO

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

Date	Signature and Title
August 26, 2020	<u>/s/ Robert V. Baumgartner</u> Robert V. Baumgartner Chairman of the Board and Director
August 26, 2020	<u>/s/ Julie Bushman</u> Julie Bushman, Director
August 26, 2020	<u>/s/ Rupert Vessey</u> Dr. Rupert Vessey, Director
August 26, 2020	<u>/s/ Joseph Keegan, Ph.D.</u> Dr. Joseph Keegan, Director
August 26, 2020	<u>/s/ John L. Higgins</u> John L. Higgins, Director
August 26, 2020	<u>/s/ Roeland Nusse, Ph.D.</u> Dr. Roeland Nusse, Director
August 26, 2020	<u>/s/ Alpna Seth, Ph.D.</u> Dr. Alpna Seth, Director
August 26, 2020	/s/ Randolph C. Steer, Ph.D., M.D. Dr. Randolph C. Steer, Director
August 26, 2020	<u>/s/ Harold J. Wiens</u> Harold J. Wiens, Director
August 26, 2020	<u>/s/ Charles Kummeth</u> Charles Kummeth, Director and Chief Executive Officer (principal executive officer)
August 26, 2020	<u>/s/ James Hippel</u> James Hippel, Chief Financial Officer (principal financial officer and principal accounting officer)

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biotechne

BOARD OF DIRECTORS

Robert V. Baumgartner Chairman of the Board and Director

Charles R. Kummeth President, Chief Executive Officer and Director

Julie L. Bushman Director

John L. Higgins Director

Joseph Keegan, Ph.D. Director

Roeland Nusse, Ph.D. Director

Alpna Seth, Ph.D, Director

Randolph C. Steer, M.D., Ph.D. Director

Rupert Vessey, M.A., B.M., B.Ch., F.R.C.P., D. Phil. Director

Harold J. Wiens Director

EXECUTIVE OFFICERS

Charles Kummeth President and Chief Executive Officer

James Hippel Chief Financial Officer

David Eansor President, Protein Sciences

Kim Kelderman President, Diagnostics and Genomics

Brenda Furlow General Counsel and Corporate Secretary

ANNUAL MEETING

The annual meeting of shareholders of Bio-Techne Corporation

will be held via a live webcast available at: VirtualShareholderMeeting.com/TECH20 Thursday, October 29, 2020 at 8:30 a.m. (Central Time)

TECH is Bio-Techne Corporation's Nasdaq stock symbol, which is listed on the Nasdaq Global Select Market.

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