

# Safe Harbor CAUTIONARY STATEMENTS

This presentation contains "forward-looking statements" within the meaning of the federal securities laws. Except for historical information contained herein, the statements in this presentation are forwardlooking and made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forwardlooking statements made herein relate to, among other things, future sales, earnings, return on equity, cost savings, process improvements, free cash flow, share repurchases, capital expenditures, acquisitions, benefits of investments and partnerships, business strategies, the potential impact of COVID-19 on our operations or financial results and other matters. Such statements can be identified by words such as: "expected,"

"expects," "expect," "forecast," "would," "estimate," "will," or similar references to future periods. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Actual results could differ materially from those stated or implied in the forward-looking statements. For a list of factors, risks and uncertainties which could make our actual results differ from expected results, please see our latest Annual Report

on Form 10-K. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, as a result of new information, future developments or otherwise. This presentation also contains non-GAAP financial information. Management uses this information in its internal analysis of results and believes this information may be informative to investors in gauging the quality of our financial performance, identifying trends in our results and providing meaningful period-to-period comparisons. For definitions of applicable non-GAAP financial measures and reconciliations of non-GAAP financial information to GAAP financial information, see the Reconciliations of GAAP to Non-GAAP Financial Measures included in the Company's financial reports on Forms 10-Q and 10-K and related press releases.



#### President & CEO Chuck Kummeth

Headquarters Minneapolis, MN

Number of Employees ~3,000

Worldwide Presence 34 Locations

FY2022 Revenues

\$1.1B

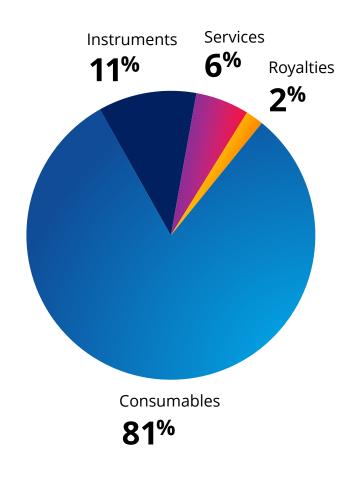
NASDAQ

**TECH** 

Market Cap

~\$13B

# **Business Overview**



#### **Product Portfolio**





Antibodies



**Immunoassays** 



Proteomic Analytical Instruments



Spatial **Biology** 



Molecular Diagnostics



Liquid Biopsy



Diagnostic Reagents & Controls

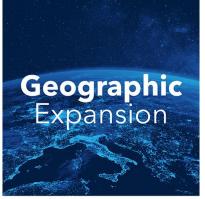
# FY22 Revenue by Customer Type & Geography



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# Deploying Five Key Strategies to Drive Profitable Growth











# Laying the Foundation for a Sustainable Future



Continual progress toward sustainability at largest global manufacturing site:

- ISO 14001 Certification
- Energy management
- Water management
- Waste management

Recent assessment, inventory and publication of Scope 1 & 2 greenhouse gas emissions for our largest U.S. and European-based manufacturing facilities.



## Social

Diverse and inclusive workplace:

- 50% of global workforce are female
- 52% of scientists are female
- Over 35% of U.S. workforce are minorities

Employees encouraged to volunteer and do charitable work in their communities

Partner and sponsor of the Science Museum of Minnesota

Included in Forbes' 2022 lists of Best-In-State Employers, Americas Best Employers & Best **Employers for Diversity** 

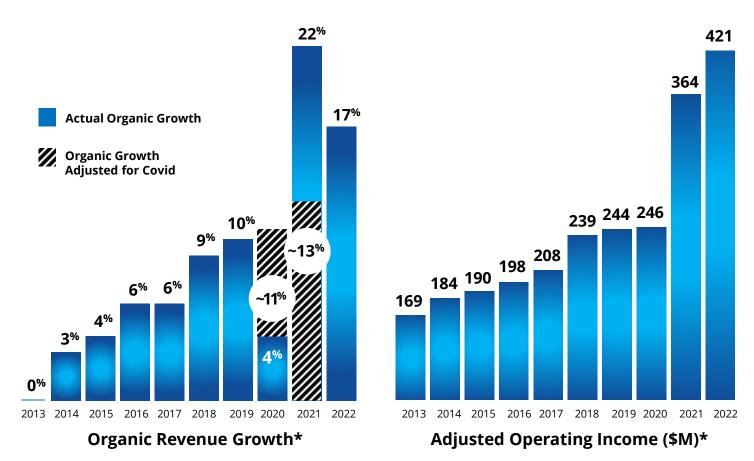


## Governance

Board includes:

- Diverse membership
- Deep scientific expertise and relevant life sciences business experience
- Led by independent Chair

# Financial Results Under Current Leadership



182 137 139 144 143 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

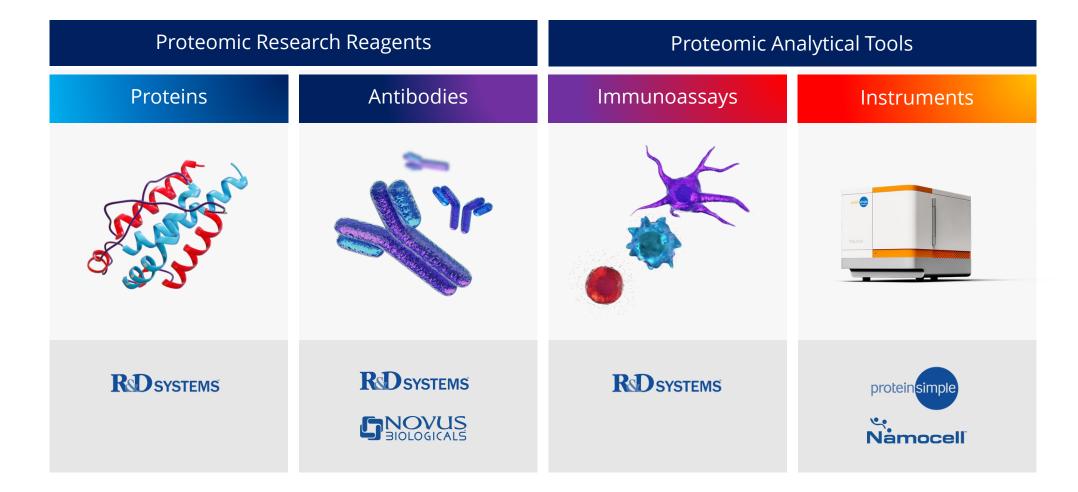
Cash From Operations (\$M)\*

OVERVIEW



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# Protein Sciences



Total Addressable Market:

~\$4B

Market Growth:

Mid-Single Digit

Bio-Techne Market Share:

~10%

Bio-Techne Growth:

7%-9%

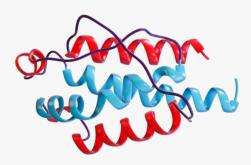
#### Brands

**R**OSYSTEMS



# Proteomic Research Reagents

#### **Proteins**



- Proteins sold with optimal bio-activity, highest quality, lot to lot consistency
- Extensive monoclonal antibody production capabilities to generate application specific antibodies
- Vast catalogues of >6,000 proteins, and ~425,000 antibody variations to better cater to customer needs

#### **Antibodies**



- Full length proteins with native protein structure make ideal immunogens to generate antibodies that recognize circulating proteins
- Digital marketing strategy providing complete use information for each reagent in the catalogue and molecular pathways
- Protein and antibody expertise creates opportunities in high-throughput proteomics and engineered protein applications

Total Addressable Market:

\$3B-\$4B

Market Growth:

**Upper-Single Digit** 

**Bio-Techne Market Share:** 

>10%

Bio-Techne Growth:

~15%

#### Brands

**R**SD SYSTEMS





# Proteomic Analytical Tools



#### **Immunoassays**

- Market leading portfolio of single analyte & multiplex immunoassays
- Key Luminex testing platform supplier
- Ouantikine ELISAs most referenced/ published ELISAs in literature



- Fully automated high-quality immunoassays
- Sub-picogram sensitivity
- Smaller footprint & less expensive vs competition
- Potential clinical applications



- Fully automated western, no gels, no film
- Protein identification and quantification
- 3 Hours from sample to answer
- Only sample-to-answer fully automated western blot solution



- Easy to use single cell sorting and dispensing instrument and consumables
- Critical technology in multiple biotherapeutic and diagnostic workflows



- Bioprocessing, two applications (CE-SDS and icIEF) in one instrument
- Protein purity, charge and identity
- Size separation enables quantitative analysis for vaccines, mAbs, ADC or virus-like particles
- Highly reproducible results in ~5 minutes
- Instrument capabilities include fractionation for mass spectrometry



# **Expanding Proteomic Analytical** Instrument Applications

#### **Biologics**



#### Legacy **Application**

• Protein purity, charge and identity



#### **Expanded Application**

- Fractionation for mass spectrometry (HPLC Ion Exchange alternative)
- Gene therapy viral titer, viral stability and host-cell impurity detection

#### Simple Western



#### Legacy **Application**

• Fully automated western blot solution



#### **Expanded Application**

- Ouantitative immunoassay
- Gene therapy viral titer and identity, potency assays, empty vs full capsid ratio

### Simple Plex



#### Legacy **Application**

 Automated multiplexing **ELISA** solution for research use



#### **Expanded Application**

- Expanding menu of CGT (viral titer and process residual) and neuroscience assays
- ISO 13485 certification initiative creates clinical Dx opportunities

# Enabling the Proteomic Revolution

#### **Discovery - High Plex**

Bio-Techne is the content provider of choice (e.g. antibodies and ligands) that enables high plex proteomic technologies.

#### **Verification & Validation -Secondary Screen & LDT**

Customizable Luminex® analyte menu (>450 analytes) and Quantist Multiplex Analysis software to verify and validate proteomic discoveries. Custom services (RUO through LDT) enable commercial partnerships with multi-cancer early detection companies.

# Luminex Multiplex **Assays**

#### **Validated Assays - LDT & Dx**

Simple Plex (Ella) fully automated, precision multiplexing (up to 8 analytes) as well as the leading portfolio of manual immunoassays to translate verified targets into validated diagnostic assays.

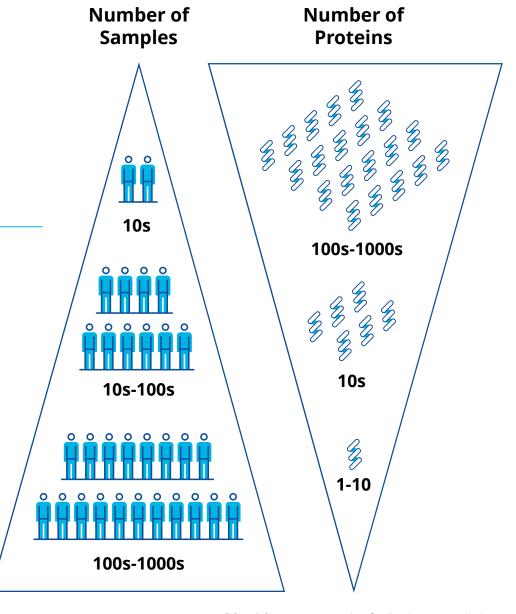


Ella™



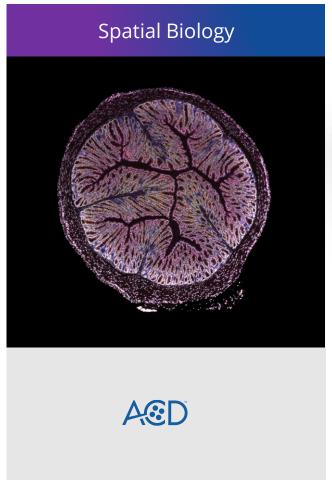






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# Diagnostics & Genomics







Total Addressable Market:

~\$2B

Market Growth:

Low-Double Digit

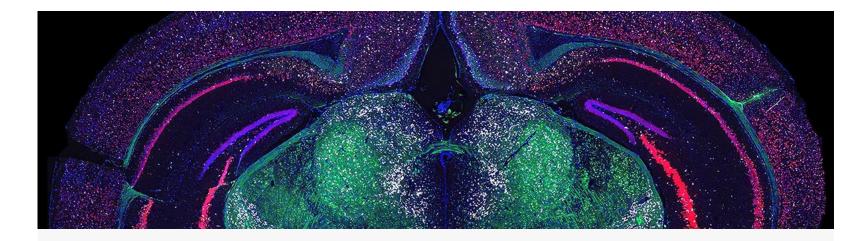
Bio-Techne Market Share: ~5%

Bio-Techne Growth: 15%-20%

**Brand** 



# Spatial Biology



- RNAscope & DNAscope technologies are novel in-situ hybridization (ISH) assays for transcriptome, DNA copy and structural variation analysis within intact cells.
- Proprietary probe design amplifies target-specific signals, but not background noise from non-specific hybridization.

- Unlike competing technologies, tissue morphology is retained, enabling tissue structure analysis
- Provides highly sensitive and specific spatial information at single cell resolution
- Multiplexing capabilities
- Get the answer the first time with ACD probes

## ACD Spatial Biology Tools: The Gold Standard for Translational Research to Clinical Development

Discovery -**Basic Research** 

Biomarker Discovery in **Spatial Context** 

> **UltraPlex** Discovery

100-1000's RNAs

Acquire Knowledge

**Novel RNA Biomarkers** 



#### **Translational Research**

**Translational** Research & Validation

#### **Single or Multiplex RNA**

- Validation of novel RNA biomarkers
- Prognostic and diagnostic RNA signatures with spatial relevance.

#### Multi-omic: RNA + Protein

- Existing IHC assays become more predictive with addition of RNA biomarkers (ex. Chemokine/cytokine)
- IHC and ISH assay consolidation.

Apply Knowledge

#### Clinical

**Next Generation** Tissue Dx And CDx

#### Positioned for Diagnostic (Dx) and Companion Diagnostic (CDx) Success:

- Robust performance with easyto-use automation and analysis.
- Sensitive detection across range of RNA sizes and species.
- RNA/Protein co-detection.

Dx

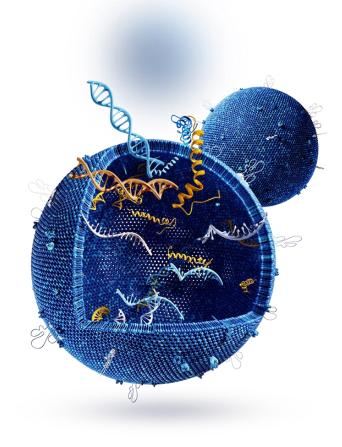
& CDx

• Single plex to multiplex: one or many chromogens.

Personalized Medicine

# Liquid Biopsies: CTC, cfDNA, & Exosomes

Key Properties	СТС	cfDNA	Exosomes	
Prevalence	Infrequent in early stages of disease	Difficult to find within "noise" of contaminating DNA	Abundant	<b>⊘</b>
Early Abundance	No	No	Yes	<b>⊘</b>
Ability to Enrich or Select	Yes	No	Yes	<b>⊘</b>
Quality of Isolated Nucleic Acids	Good	Poor due to enzyme exposure	High-quality Shielded	<b>⊘</b>
Tissue of Origin	No	No	Yes	$\bigcirc$



Exosomes are a superior source for biological information

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# Exosome Based Liquid Biopsy

#### ExoDX Prostate Test (EPI)

#### Prostate Cancer Risk Stratification

Validated to risk stratify clinically significant (Gleason Score ≥7) prostate cancer (PCa) from low grade PCa (Gleason Score 6) and benign disease

#### Increase Patient Compliance

92% patient compliance to physician recommendation to defer biopsy, 72% patient compliance to proceed to biopsy (39% S.O.C.)\*

#### ID Men For Active Surveillance

World Journal of Urology study reports EPI score below 15.6 could ID men for active surveillance and prevent low-risk men from proceeding to radical prostatectomy\*\*

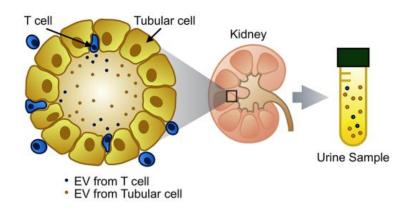
\*Data from Tutrone R, Donovan MJ, Torkler P, Tadigotla V, McLain T, Noerholm M, Skog J, McKiernan J. Clinical utility of the exosome based ExoDx Prostate (IntelliScore) EPI test in men presenting for initial biopsy with a PSA 2-10ng/ml. Prostate Cancer and Prostatic Diseases. May, 2020

\*\*Data from Kretschmer A, Tutrone R, Alter J, Berg E, Fischer C, Kumar S, Torkler P, Tadigotla V, Donovan M, Sant G, Skog J, Noerholm M. Pre-diagnosis urine exosomal RNA (ExoDx EPI score) is associated with post-prostatectomy pathology outcome. World Journal of Urology. January 2022

## ExoTRU Kidney Transplant Rejection Commercialization Agreement

Announced exclusive Thermo Fisher Scientific agreement for completion and commercialization of ExoTRU kidney transplant rejection assay

Upon test completion, ExoTRU becomes part of Thermo Fisher's transplant diagnostics portfolio, building on its presence in the post-transplant monitoring space



# Emerging Exosome Platform Applications

Current Development Programs

- Prostate Cancer Expansion
- Solid Tumor Mutation
- Transplant Rejection
- Sjogrens Syndrome
- Colorectal Cancer

**Prostate Cancer** Portfolio Expansion **Expand Current** Markets

Colorectal Early Detection Test



Leverage existing urology sales force to launch pipeline urology tests including active prostate cancer surveillance ("rulein"), risk stratification and monitoring products



Launch single gene qPCR oncology monitoring kits through existing Asuragen channel.

Expand organ transplant rejection portfolio beyond ExoTRU Kidney targeting additional organ transplant rejection indications

Commercialize Sjogren's Syndrome assay (companion Dx & partnership opportunities)



Achieve superior performance for early detection of colorectal cancer in a blood test for partnering with large or emerging player in screening market



Total Addressable Market:

~\$1B

Market Growth:

Low-Double Digit

Bio-Techne Market Share:

<5%

Bio-Techne Growth:

>20%

#### **Brand**



## Molecular Products





- Market leading developer and manufacturer of molecular controls, genetic carrier screening and oncology diagnostic kits for both clinical and research applications
- Proprietary chemistries enable kit use on widely available platforms including PCR, qPCR, capillary electrophoresis and next generation sequencing instruments
- 14 products currently on the market including carrier screening kits for Fragile X (FDA approved), Cystic Fibrosis and Spinal Muscular Atrophy as well as BCR-ABL (FDA approved) for chronic myeloid leukemia monitoring.
- CLIA-certified and GMP compliant laboratory, and team with deep diagnostic expertise

Total Addressable Market:

\$1B-\$2B

Market Growth:

Mid-Single Digit

Bio-techne Market Share:

~10%

Bio-techne Growth: 5%-7%

#### **Brands**







# Diagnostic Reagents & Controls





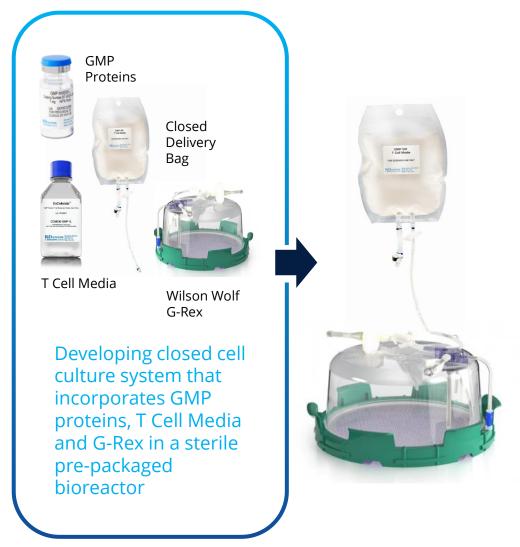
- Market leading supplier of clinical controls, calibrators and kits for the diagnostics industry
- Asuragen acquisition adds portfolio of easy-to-use IVD and RUO molecular controls
- >40 years of experience developing and manufacturing diagnostic reagents
- OEM partner of choice for many of the largest global in-vitro diagnostic companies
- Supplier of bulk antibodies, raw materials, components and reagents

# Wilson Wolf Agreement

Announced agreement with Wilson Wolf for potential ownership investment and future acquisition

- Wilson Wolf manufactures the G-Rex product line, a leading cell culture device
- G-Rex utilizes convection (not diffusion) to maximize cell growth with uninterrupted access to nutrients
- Potential 20% ownership investment for ~\$257M in total consideration upon Wilson Wolf achieving ~\$92M in revenue or ~\$55M in EBITDA
- Agreement to acquire Wilson Wolf for additional ~\$1B (~\$1.26B total consideration) upon achieving ~\$226M in revenue or ~\$136M in EBITDA

- Technology currently used by ~800 biopharma customers
- In 2020, Bio-Techne, Wilson Wolf and Fresenius Kabi formed cell and gene therapy joint venture ScaleReady. This agreement builds on this established relationship.
- If acquisition milestones not met by 12/31/27 Bio-Techne can acquire Wilson Wolf at ~4.4x TTM revenue



# Cross Company Cell Therapy Workflow Solutions



### Regenerative Medicine (Stem Cell Therapy)

Replace lost or damaged cells and tissues with stem cells

1. Isolate & Culture. Differentiated Cells for induced pluripotent stem cell (iPSC) reprogramming (e.g. fibroblasts) Isolation Kits • Cytokines • Culture media • Small molecules • **Antibodies • ELISA-based Assays** 

**2. Reprogram.** Introduce transcription factors (Oct3/4, Sox2, Klf4, c-Myc) to induce pluripotency (iPSC only)

Cytokines • Small molecules • Antibodies • ProteinSimple • Namocell

- **3. Expand.** Expand cells while maintaining pluripotency. **Cytokines • Culture media • Small molecules • Antibodies** • ELISA-based Assays • ProteinSimple
- 4. Differentiate. Culture cells with defined protocols to elicit progenitors and differentiated cell lines

Cytokines • Culture media • Small molecules • Antibodies • ACD • ELISA-based Assays • ProteinSimple

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### **Immune Cell Therapy**

Fight cancer or clear diseases with manipulated immune cells

**1.** White blood cells obtained from patient through leukapheresis

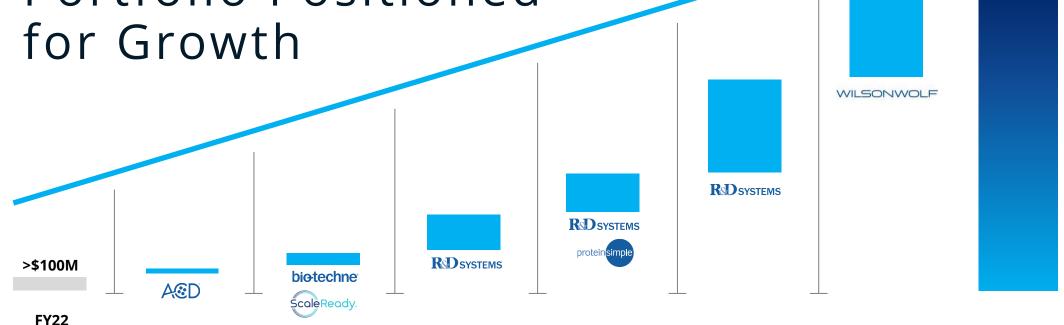


- **2.** Antibody-coated beads used to activate the T cells **Cell Activation Kits • MFI Technology**
- **3.** Activated T cells are reprogrammed via various vectors to express Chimeric Antigen Receptors (CARs) Genome Engineering (TcBuster) • Simple Western Technology
- **4.** Reprogrammed T cells are screened for CAR gene expression and efficacy Spatial Biology (ACD) Technology • Simple Western Technology
- **5.** CARs expressing T cells are expanded ex vivo **GMP Proteins In Bioreactor** • (G-Rex), Media
- **6.** Expanded T cells are tested for CAR expression and purity Flow Cytometry Antibodies • Immunocytochemistry Antibodies Simple Western Technology
- 7. Patient receives lymphodepleting chemotherapy prior to T cell treatment
- **8.** CAR T cells are transfused back into the patient and Ella is used to monitor Cytokine Release Syndrome (CRS) Ella Technology

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~\$2B

Cross Company Cell & Gene Therapy Portfolio Positioned



#### **Spatial Biology**

- RNAScope
- BaseScope
- DNAScope
- MicroRNA
- Services

#### Genome **Engineering**

- Genome Engineering Services
- TcBuster

#### Media & Matrices

- BME
- Fetal Bovine Serum
- Cell Culture

#### **Proteomic Analytical** Tools:

- ELISAs
- Simple Western
- Biologics
- Simple Plex

#### **GMP Reagents**

- GMP Proteins
- GMP Antibodies & Activation
- GMP Small Molecules

#### Wilson Wolf

• G-Rex

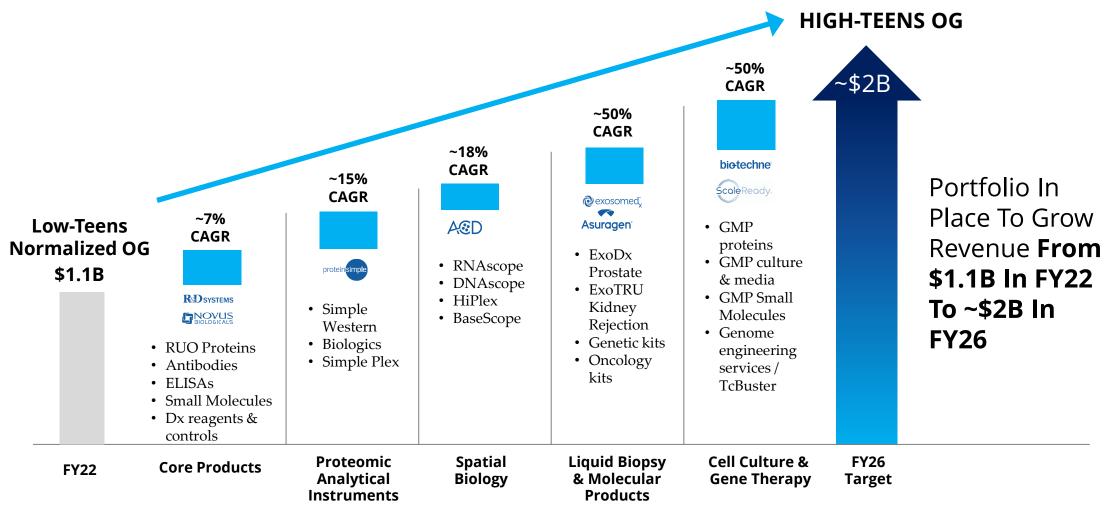
#### FY32 **Target**

# Large Addressable End Markets: ~\$17B-\$21B

End Markets	Market Size	Market Growth Rate	Bio-Techne Growth Rate	Bio-Techne Market Penetration
Proteomic Research Reagents	~ <sup>\$</sup> 4B	Mid-Single Digit	7%-9%	~10%
Proteomic Analytical Tools	\$3B-\$4B	Upper-Single Digit	~15%	>10%
Cell Culture & Gene Therapy	\$3B-\$4B	>20%	~50%	>2%
Spatial Biology	~\$2B	Low-Double Digit	15%-20%	~5%
Liquid Biopsy	\$3B-\$4B	>20%	>50%	~1%
Molecular Products (Genetic/ Oncology)	~ <sup>\$</sup> 1B	Low-Double Digit	>20%	<5%
Diagnostic Reagents & Controls	\$1B-\$2B	Mid-Single Digit	5%-7%	~10%

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# The Path to \$2B





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