Where Science Intersects Innovation®

Bio-Techne Investor Day

September 8, 2023
Safe Harbor

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 forward-looking and made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking 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,” “expects,” “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 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.
Agenda

8:30 AM – 9:15 AM  Corporate Overview  Chuck Kummeth, President & Chief Executive Officer

9:15 AM – 10:00 AM  Protein Sciences  Will Geist, President, Protein Sciences

10:00 AM – 10:15 AM  Break

10:15 AM – 11:00 AM  Diagnostics & Genomics Overview  Kim Kelderman, President, Diagnostics & Genomics

11:00 AM – 11:30 AM  Financials  Jim Hippel, Executive Vice President & Chief Financial Officer

11:30 AM – 12:00 PM  Q&A / Wrap-Up
Corporate Overview

Chuck Kummeth
President and Chief Executive Officer
Chuck Kummeth became President and Chief Executive Officer of Bio-Techne Corporation on April 1, 2013. Prior to joining the Company, he served as President of Mass Spectrometry and Chromatography at Thermo Fisher Scientific Inc. and was President of that company’s Laboratory Consumables Division from 2009 to September 2011. Prior to joining Thermo Fisher, Mr. Kummeth served in various leadership roles during his 24-year career at 3M Corporation, most recently as the Vice President of the company’s Medical Division from 2006 to 2008 and as the Managing Director of 3M for the UK and Ireland.

Will Geist joined Bio-Techne on January 3, 2022, as President, Protein Sciences Segment. Prior to joining the Company, Mr. Geist was Chief Operating Officer at Quanterix, a company with immunoassay tools for life science research and diagnostic applications. Prior to Quanterix, Mr. Geist led two of Thermo Fisher Scientific’s largest business units, qPCR and Protein & Cell Analysis, each with revenues of ~$1 billion. Prior to Thermo Fisher Scientific, Mr. Geist led the commercialization of Quanta BioSciences, a genomics tools company, from start-up through acquisition by Qiagen where he took on leadership for additional life science brands.

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.

Jim Hippel became Chief Financial Officer on April 1, 2014. Prior to joining the Company, he served as Senior Vice President and CFO for Mirion Technologies, Inc., a $300 million global technology and manufacturing company which provides mission critical products to detect, monitor and identify radiation. Prior to Mirion, Mr. Hippel served as Vice President, Finance at Thermo Fisher Scientific, Inc., leading finance operations for its $2 billion Mass Spectrometry & Chromatography and $1 billion Laboratory Consumables divisions. Mr. Hippel’s experience also includes nine years of progressive financial leadership at Honeywell International, within its Aerospace Segment. He began his career with KPMG Peat Marwick LLP.
Consumables-Focused
Portfolio of Proven Products

Instruments 10%
Services 7%
Royalties 2%

Consumables 81%

$1.1B

Product Portfolio

- Proteins
- Antibodies
- Immunoassays
- Proteomic Analytical Instruments
- Spatial Biology
- Molecular Diagnostics
- Liquid Biopsy
- Diagnostic Reagents & Controls

President & CEO
Chuck Kummeth

Headquarters
Minneapolis, MN

Number of Employees
~3,200

Worldwide Presence
35 Locations

FY2023 Revenues
>$1.1B

NASDAQ
TECH

Market Cap
~$13B
OUR MISSION

We focus on improving the quality of life by catalyzing advances in science and medicine.
Creating Bio-Techne

2013

US-centric narrowly-focused catalog research reagents company

2023

Global diversified diagnostic and life science solution provider

R&D SYSTEMS
TOCRIS
biospecific

protein simple
Asuragen
Lunaphore
techologies
exosomed
Transformation has Driven Addressable Market Expansion

ADDRESSABLE MARKET:
~$3B

FY2013

ADDRESSABLE MARKET:
~$27B

FY2023

* Core includes Proteomic Research Reagents, Diagnostic Reagents & Controls, and Assays
**Large Addressable End Markets: ~$27B**

<table>
<thead>
<tr>
<th>End Markets</th>
<th>Market Size</th>
<th>Market Growth Rate</th>
<th>Historic 5-Yr Bio-Techne CAGR</th>
<th>Bio-Techne Market Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Products*</td>
<td>~$6B</td>
<td>Mid-Single Digit</td>
<td>7%</td>
<td>~10%</td>
</tr>
<tr>
<td>Proteomic Analytical Instruments</td>
<td>~$3B</td>
<td>Low-Double Digit</td>
<td>19%</td>
<td>~10%</td>
</tr>
<tr>
<td>Spatial Biology</td>
<td>~$5B</td>
<td>Low-Double Digit</td>
<td>15%</td>
<td>&gt;2%</td>
</tr>
<tr>
<td>Liquid Biopsy &amp; Molecular Diagnostics</td>
<td>~$9B</td>
<td>Low-Double Digit</td>
<td>∞</td>
<td>~1%</td>
</tr>
<tr>
<td>Cell &amp; Gene Therapy</td>
<td>~$4B</td>
<td>&gt;20%</td>
<td>50%</td>
<td>~2%</td>
</tr>
</tbody>
</table>

*Core products include proteomic research reagents, ELISAs, and diagnostic reagents & controls*
Transformation has Driven Growth and Profitability

<table>
<thead>
<tr>
<th></th>
<th>Revenue ($M)*</th>
<th>Adjusted Operating Income ($M)*</th>
<th>Cash from Operations ($M)*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2013</strong></td>
<td>311</td>
<td>169</td>
<td>124</td>
</tr>
<tr>
<td><strong>2023</strong></td>
<td>1,137</td>
<td>410</td>
<td>254</td>
</tr>
</tbody>
</table>

* Fiscal year results.

14% CAGR
9% CAGR
7% CAGR

* Fiscal year results.
Subsidiary Operating Model

Global Business Unit / Division → CEO/CLT ← Regional Organization

→ Business / Functional Leadership ← Communication → Area Leadership

→ Business / Functional Leadership ← Shared P&L → Area Leadership

Portfolio: Life Cycle Technology Platform Brand/ Capital

→ Sets the Strategy ← Human Capital → Business Systems

→ Customer ← Ways to Market Local Customization Regional Customer Support

Owns the Execution
Bio-Techne Business Process

**Set Direction**
- **Strategic Plan**
  Provides context, direction, objectives and high-level financial targets

**Collect Data**
- **Define Option**
  Define business case options in the catalyze templates
- **Identify Resources**
  Identify total staffing resources across the business

**Prioritize**
- **Scoring**
  Score options against the strategic filters
- **Weighting**
  Weight the strategic and financial filters
- **Return on Investment**
  Prioritize the options using the benefits vs cost

**Analyze & Decide**
- **Scenario Analysis**
  Consider different emphasis of filters, risks and resource constraints
- **Define Portfolio**
  Agree on the mix of options to best deliver the STRAP

**Plan & Execute**
- **Operating Plan**
  Inform an executable AOP to maximize business growth

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**Enterprise Level**

**Divisional Focus**

**Enterprise Level**

**Collaboration**

- **Key Meetings**
- **Review & Challenge**
- **Decision Conferences**
- **Leadership Offsite**
**Prioritization Process**

Prioritization Provides Clear Direction for Investment Decisions Across the Whole Business

**Compare Options Based On:**

- What are the resources required to deliver the project?
- What is the benefit of the project, assuming success?
- What is the delivery confidence?

**Filters**

- Strategic Growth
- Enhancing the Core
- Customer Experience
- 6-10 yr Revenue ($)
- 1-5 yr Revenues ($)

**(Benefit/Cost Prioritization Frontier)**

Options are ordered by benefit/cost ratio starting with the highest priority option in the bottom left corner.
Prioritization Process

Prioritization Projections Have Been Predictive of Revenue Five Years Out

FY Revenue ($M)

<table>
<thead>
<tr>
<th>FY</th>
<th>Actual Revenues</th>
<th>Prioritization Projection 5 Years Earlier</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY20</td>
<td></td>
<td></td>
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<tr>
<td>FY21</td>
<td></td>
<td></td>
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<tr>
<td>FY22</td>
<td></td>
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<tr>
<td>FY23</td>
<td></td>
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</tr>
</tbody>
</table>
Our Segment Structure & Brands

**Protein Sciences**

- **Proteomic Research Reagents**
  Develops and manufactures biological reagents used in all aspects of life science research and cell and gene therapy workflow.

- **Proteomic Analytical Tools**
  Manual and automated protein analysis solutions that improve the efficiency of process work streams & quantitate secreted proteins.

**Diagnostics & Genomics**

- **Diagnostic Reagents**
  Develops and manufactures controls, calibrators and assays for regulated diagnostics.

- **Molecular Diagnostics**
  Develops and manufactures genetic and oncology diagnostic kits for research and clinical applications, molecular diagnostic controls & exosome-based liquid biopsy diagnostics.

- **Spatial Biology**
  Advanced, tissue morphology friendly RNA & DNA IN SITU hybridization (ISH) assays for transcriptome, DNA copy and structural variation analysis.
Portfolio of Core Products
Allows Delivery of Comprehensive Workflow Solutions

Core Products

- Antibodies
- Proteins
- Immunoassay
- Calibrators & Controls
- Small Molecules

Spatial Biology
Cell Culture & Gene Therapy
Liquid Biopsy
Proteomic Analytics
Completing the Transformation...

2023
Global diversified diagnostic and life science solution provider

2033
Workflow provider of customer-oriented brands for solutions critical to research, therapeutic, and diagnostics applications

- Cell and Gene Therapy
- Proteomics
- Spatial Biology
- Liquid Biopsy
- Protein Simple
- TOCRIS
- A&D
- Novus Biologicals
- Asuragen
- Lunaphore Technologies
- ExosomeX
Deploying **Five Key Strategies**
to Drive Profitable Growth

- Core Product Innovation
- Geographic Expansion
- Bolt on M&A and Market Expansion
- World-Class Customer Journey
- Culture and Talent Growth
We are a Product-Based Solutions Company

**Lead** with high quality, innovative products to meet customer's needs

**Foster** a continuous improvement mindset

**Utilize** technology council to drive cross-divisional innovation

**Maximize** synergistic opportunities in the diagnostic and cell & gene therapy spaces

**Continue** emphasis on intellectual property creation

**Reinvest** 8 -10% of revenues into research
Portfolio Approach Offers Opportunity for Cross-Platform Synergies

**Immunoassay Platforms**
- Antibody selection/characterization for assay performance
- Protein standards
- Conjugation and signal amplification

**Western Blotting**
- Strengthen presence in WB application
- Expand ancillary reagents
- Improved antibody characterization

**Multiomics Spatial Profiling**
- ISH-IHC codetection
- Fluorescent and signal amplification
- Simultaneously examine gene expression and cellular sources of secreted proteins
Creating Value Through Innovation

**Innovation Engine Creates Patentable, Protectable IP:**
- 568 granted patents
- 316 pending
We are a Global Company

**Optimize** subsidiary model to drive global operational excellence

**Expand** regional sales teams and offices in under-penetrated geographies, particularly in China, Asia, and Latin America

**Rationalize** delivery channels to improve responsiveness and customer experience

**Provide** direct support and service to engage with customers and drive future sales

**Coordinate** worldwide efforts to grow in diagnostics and cell and gene therapy
Our Global Reach

Global Locations

**North America**
- Minneapolis, MN
- Ottawa, Canada
- Toronto, Canada
- Atlanta, GA
- Austin, TX
- Denver, CO
- Devens, MA
- Emeryville, CA
- Newark, CA
- St. Paul, MN
- San Jose, CA
- San Marcos, CA
- Wallingford, CT
- Waltham, MA
- São Paulo, Brazil

**Europe**
- Abingdon, UK
- Bristol, UK
- Dublin, Ireland
- Langley, UK
- Milan, Italy
- Paris, France
- Rennes, France
- Weisbaden, Germany
- Tolochenaz, Switzerland

**Latin America**
- São Paulo, Brazil

**Asia**
- Beijing, China
- Osaka, Japan
- Pune, India
- Seoul, South Korea
- Singapore
- Tokyo, Japan
- Guangzhou, China
- Hong Kong
- Shanghai, China (3)

**Locations**
- Manufacturing
- Sales Office
- Regional Distribution
- R&D
- Demo Site
Expanding Global Team

**OVERVIEW**

Expanding Global Team

Rapid employee growth requires strong culture to execute on strategies

**FY2013**

- ~800 Employees
  - >100
  - <20
  - ~700

**TODAY**

- ~3,200 Employees
  - >250
  - >500
  - ~2,400

- North America
- Europe
- Asia
We are Entering New Categories Through M&A

**Identify** fast growing and/or game changing technologies that can scale

**Integrate** acquisitions that fill product or technology gaps

**Strengthen** diagnostic and analytical capabilities that leverage our consumables portfolio

**Support** continued expansion of footprint in Europe and Asia

**Extract** maximum value from recent acquisitions
Successful Bolt-On Strategy Has Led to Sustained & Accelerated Growth

Acquisition Strategy Has Created an Organic Growth Engine
What Have we Looked for in M&A

- **Life Science Synergies**
- **Deploy existing content**
- **Unique, protectable IP and/or first-mover advantage**
- **Address sizable markets with a pathway to customer acceptance and near-term profitability**
We are Customer-Focused

**Product** development driven by customer needs

**Deliver** world-class quality

**Drive** continuous improvement in quality systems

**Modernize** marketing and digital systems to connect customers to our products

**Rationalize** ordering, tracking, and delivery processes to improve customer satisfaction and loyalty

**Optimize** support and service to enhance customer satisfaction
World-Class Customer Journey

**Build Upon a Strong Brand**
- Continue to build the Bio-Techne brand
- Unify messaging
- Drive customer journeys across our products

**“Always On” Marketing**
- Build upon our legacy of speaking science to scientists
- Web as the primary marketing channel
- Move to responsive, personalized content

**Remove Business Friction**
- Make products easy to find and bundle
- Improve ordering and tracking with OBT and improved ERP
- Rationalize delivery systems
- Simplify support and service processes

**Deliver World Class Quality**
- Foster continuous improvement mindset
- The “right” quality system for each product and customer
- Recognize and foster the legacy of R&D Systems quality

**Serve and Support Users**
- Improve delivery lead times and tracking
- Modernize training and support systems
- Elevate service and support responsiveness

CUSTOMER JOURNEY
Creating an Intelligent Experience
Leveraging Data and AI to Create a World Class Customer Experience

Recommendations & Search
Guiding customer browsing across the vast product portfolio

Omnichannel Personalization
Tailoring the experience at scale across channels to unique customer needs

Experimentation & Optimization
Building a world class experience through rapid experimentation & learning

Applying AI/ML on wealth of customer engagement data will create value
We are E.P.I.C.

Emphasize epic culture and values
Create a stimulating work environment
Leverage key talent through acquisitions
Build talent pipeline
Co-create always-on recruiting
Deepen employee experience
Fortify belonging
Integrate learning and development
Optimize talent systems
Our EPIC Culture

**RELEASE** Potential

**DEVELOP** People

**PROVIDE** the Right Tools

**GIVE** it Everything

**MAKE** Work Enjoyable

**KNOW** Why Your Work is Important

**MAKE** Something Brilliant

**TAKE** Risks Worth Taking

**IMAGINE** the Possibilities

**SHARE** to Win

**BUILD** Positive Relationships

**CONNECT** Across Boundaries
A Team of Experienced Leaders

Chuck Kummeth
Chief Executive Officer

Jim Hippel
Chief Financial Officer

Shane Bohnen
SVP General Counsel

Will Geist
President Protein Sciences

Kim Kelderman
President Diagnostics & Genomics

Qi Cheng
VP Corp. Quality & Regulatory Affairs

Brenda Everson
SVP Chief Human Resource Officer

Bob Gavin
VP Corporate Development

Gary Latham
VP Chief Technology Officer

Kevin Smyth
SVP Chief Digital Officer

Bernie Andruess
SVP & GM Molecular Diagnostics Division

Steve Crouse
SVP & GM Analytical Solutions Division

Evett Kruka
SVP & GM Spatial Biology Division

Dylan Malayter
VP Reagent Solutions Division

Steve Silverman
VP & GM Diagnostic Reagents Division

Peter Breloer
VP APAC

Peter Schüßler
VP EMEA
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.

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

Board includes:
• Diverse membership
• Deep scientific expertise and relevant life sciences business experience
• Led by independent Chair
Key Investment Highlights

• **Remain well positioned** in growing and underpenetrated markets

• **Culture and processes focused** on driving growth and maximizing profitability

• **Poised to benefit** from improving macro environment

• **Continue building a sustainable future** as a prominent Life Science Tools/Diagnostics portfolio

• **Experienced and global team** that understands markets/customers

• **Great track record executing** and integrating high value acquisitions

• **Portfolio well positioned for high-growth** cell & gene therapy, spatial biology and liquid biopsy markets
The Golden Age of Proteins

Bio-Techne is uniquely positioned for growth and share gain
Next Generation or HTP Proteomics

### Historical Challenges
- Lack of Sensitivity
- High Sample Consumption
- Low Throughput
- Lack of Specificity
- Limited Dynamic Range
- High Cost

### Proteins
Proteins determine structure, function, and regulation

- **DNA**
- **RNA**
- **Proteins**

**Utility**
- Limited
- Moderate
- Infinite

### Proteins unlock the potential of genomics as we shift from the blueprint to the functional biology.

#### Central Dogma
- DNA
- RNA
- Proteins

#### Profile
- Phenotype
- Proxy
- Baseline

### Utility
- Early Precise Dx
- Novel Drug Targets pQTLs
- Better Understanding of Biology (disease mechanism)
- Reverse Translation
- Prediction of Disease and Outcome
- Patient Stratification
- Surrogate Makers Safety & Efficacy

### HTP Solutions
HTP Solutions have overcome these challenges through innovative solutions that leverage our antibody content.
Our Analytical Systems are critical accelerators for research, development, and production
Cell & Gene Therapy
Significant Growth Potential

**CELL & GENE THERAPY TODAY**

| Addressable Market | $4Bn |

**PUTTING THIS IN CONTEXT:**

Mirroring Monoclonal-Antibody Therapy

Cell & Gene Therapy is still in early phases of growth mirroring biologics & monoclonal antibody technologies.

With proven success in 13 FDA approved therapies, significant industry investments and application growth opportunities, it has unlimited potential.

Source: Pitchbook, Thomson Reuters, Evaluate Pharma, Alliance for Regenerative Medicine, Pitchbook
PSS Strategic Pillars

We improve the quality of life by Catalyzing advances in Science and Medicine

- Grow & Leverage the Core
- Win in C&GT and Diagnostics
- Expand Market Access Through Innovation
- Best-in-Class Customer Experience

The Team, Our Advantage, Where Talent Thrives
# Protein Sciences

## Proteomic Research Reagents

<table>
<thead>
<tr>
<th>Proteins</th>
<th>Antibodies</th>
<th>Small Molecules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading portfolio of high-quality proteins</td>
<td>Largest commercial portfolio of antibodies</td>
<td>Wide range of innovative, chemical tools</td>
</tr>
</tbody>
</table>

## Proteomic Analytical Tools

<table>
<thead>
<tr>
<th>Immunoassays</th>
<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most cited portfolio of single analyte and multiplex immunoassays</td>
<td>Portfolio of simple, automated platforms that disrupt traditional workflows</td>
</tr>
</tbody>
</table>
What Makes Our Content Special?

Best in Class Content is Our Engine

**Choice**
- Largest selection of RUO & GMP bioactive Proteins
- Trusted Immunoassay content offered in multiple platforms
- Over 400,000 catalog antibody variations enable many applications
- Expansive small molecule menu for core research application areas

**Confidence**
- Stringent quality standards and dedicated GMP facilities
- Most Protein and Immunoassay publication references
- Each Protein lot tested by bioassays for reproducibility
- Antibodies built from best-in-class Proteins unlock Immunoassays and Licensing partnerships

**Continued Innovation**
- Scaling of manufacturing, factories & yields
- Pairing AI (alpha fold) and new techniques to drive new product development aligned to growth vectors
- Cross division partnership to unlock maximum value (i.e. spatial)
Proteomic Applications:
Leveraging and Deploying Content

Addressable Market:
~$4-5B

Market Growth:
Mid-Single Digit

Bio-Techne Market Share:
~10%

Bio-Techne 5 Year Trailing CAGR:
~7%

Brands
R&D SYSTEMS
NOVUS BIOLOGICALS
TOCRIS
## Analytical Instruments: Disrupting Existing Workflows with Simple/Automated Solutions

<table>
<thead>
<tr>
<th><strong>Brands</strong></th>
<th><strong>Addressable Market:</strong></th>
<th><strong>Market Growth:</strong></th>
<th><strong>Bio-Techne Market Share:</strong></th>
<th><strong>Bio-Techne 5 Year Trailing CAGR:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$&gt;3B</td>
<td><strong>Upper-Single Digit</strong></td>
<td>&gt;10%</td>
<td>~19%</td>
</tr>
</tbody>
</table>

### Simple Plex™

- **Automated ELISA Platform**
  - Fully automated
  - Sub-picogram sensitivity with best precision on the market
  - Smaller footprint & accessible vs competition
  - Potential clinical applications

### Western

- **Automated western platform**
  - Protein identification and quantification
  - 3 Hours from sample to answer
  - Only sample-to-answer fully automated western blot solution

### Biologics

- **Automated Protein purity, charge and identity**
  - Multiple capabilities (CE-SDS, iCIEF, iCIEF Fractionation) in one instrument
  - Supports bioprocess
  - Highly reproducible results in ~5 minutes

### Namocell

- **Automated single cell sorting and dispensing instrument**
  - Critical technology in multiple biotherapeutic and diagnostic workflows

### Brands

- **protein simple**
- **Namocell**

### Deployed Content

- **Protein Detection**
- **Protein Characterization**
- **Cell Analysis**
Accelerating Adoption Across Instrument Platforms

Simple Western™ Installed Base

Biologics iCE Installed Base

Simple Plex Installed Base

Established tools in modern labs
Simple Western: The ONLY Automated Western Blotting Instrument On the Market

- Takes a difficult, complex workflow and automates and simplifies it
- Adds significantly improved quantitation
- The throughput and quantitation was simply not possible before Simple Western

<20% of western blotting market today

→ Critical mass, tipping point, >90% sold w/out demo
Simple Western: Empowering Scientists in New Applications

Complex Sample Types
- Cell & viral lysates
- Tissue homogenates

Applications Where Size Matters
- Degradation studies
- Isoforms
- Prodrugs/Probodies

Potency Assays
- Gene Therapy potency assays to support development through clinical trials

Intracellular/Signaling Immunoassays
- Phospho signaling
- Targeted protein degradation

No Commercial ELISA Kit
- Easy assay dev vs. ELISA
- 1 antibody vs. 2 Ab pair
- Low matrix effects

Expanding Market Opportunities with Simplicity and Quantitation
Maurice: One Investment, Multiple Applications

A single Maurice platform for **Protein Identity, Charge, Size and Characterization** applications for Discovery through GMP Product Release

**Primary Target Customer**

Analytical Development and QC labs across Pharma and Biotech
Innovation Expanding Market Opportunities in Bioprocess

New MauriceFlex™ Instrument
Performs IEF Fractionation and routine cIEF and CE-SDS

Turbo Cart for CE-SDS Applications
5x the throughput with similar resolution to our CE-plus cart

Control of Maurice Instrument
Empower™/Chromeleon™ Drivers supporting the Maurice and MauriceFlex

Expanding into the $300M HPLC IEX market!
Redefining Single Cell Isolation

Namocell™ Single Cell Dispensers
• Designed specifically for single cell isolation
• Address all current challenges
• Support a wide range of applications

Targeting a more than $300M Single Cell Dispensing market
Simple Plex: Automation Provides Unparalleled Assay Precision

Quickly becoming a leading tool for immune monitoring and biomarker research

Growing adoption

- Expanding library to support Cell & Gene Therapy, Neuroscience, Immunology, and Bioprocess
- Emerging opportunities for Ella™ as a Dx tool with recent ISO 13485 certification

Ultra-precise, easy-to-use, sensitive, multi-analyte immunoassay platform
Global Leader in Immunoassays

**ELISA Kits**
- R&D Systems 40 year legacy as premium brand
- Most cited supplier of plate-based ELISAs
- Expanding QuickKit menu
1600+ ELISA kits across 16 species

**Simple Plex on Ella**
- Automated and precise Immunoassay supporting data consistency site to site
- Expanding menu in key areas (CGT, Neuro)
- ISO13485 Cert pending opening up Dx opportunities
250+ Simple Plex assays across 3 species

**Luminex Assays**
- Multiplex Up to 50 targets with flexible panel customization
- Seen as “quality” provider with assays vertically integrated
- Expanding immuno-oncology menu
490+ Luminex multiplex assays across 5 species

Seen as the quality leader for more than 40 years!
Bio-Techne is Well Positioned for the Rapidly Expanding Protein Detection Market

**Discovery - High Plex**
- Bio-Techne: Leverages antibody content to strengthen partnerships through license & commercial supply

**Verification & Validation – Secondary Screen & Clinical Trials**
- Bio-Techne: Quality leader with extensive Luminex menu and custom services.
- Vertical integration of proteins/abs positions us to win in clinical areas like multi-cancer early detection (MCED).
- License and supply of antibody content.

**Validated Assays – CGT QC release, LDT & Dx**
- Bio-Techne: Complete menu for CGT, neuro and immuno-oncology on Ella.
- Commercial focus on CGT, clinical trials and IVD where assay simplicity and precision really matters.
### Expanding Proteomic Analytical Instrument Applications & Markets

<table>
<thead>
<tr>
<th>Biologics</th>
<th>Simple Western</th>
<th>Simple Plex</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Legacy Application</strong></td>
<td><strong>Expanded Application</strong></td>
<td><strong>Expanded Application</strong></td>
</tr>
<tr>
<td>• Protein purity, charge and identity</td>
<td>• Fractionation for mass spectrometry (HPLC Ion Exchange alternative)</td>
<td>• Automated multiplexing ELISA solution for research use</td>
</tr>
<tr>
<td></td>
<td>• Gene therapy viral titer, viral stability and host-cell impurity detection</td>
<td>• Expanding menu of CGT (viral titer and process residual) and neuroscience assays</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ISO 13485 certification initiative creates clinical Dx opportunities</td>
</tr>
</tbody>
</table>

**Legacy Market:** $2B-$3B  
**Expanded Market:** $3B+
Cell & Gene Therapy
Full workflow solution in high growth market
Curing the Uncurable
With Cell & Gene Therapies

<table>
<thead>
<tr>
<th>Cell Therapies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Immune Cell Therapy</strong></td>
</tr>
<tr>
<td>Manipulate the immune system to clear tumors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gene Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repair or replace defective genes</td>
</tr>
</tbody>
</table>
Cell & Gene Therapy In Demand

- FDA approved **13**
  - 18 indications covered since 2017
- More than **~2,000** CGT therapies in clinical trials right now
- FDA estimates the approval of up to **~20** CGT products a year by 2025
C&GT Market Opportunity

Addressable Market:  
~$4B

Market Growth:  
Upper Teens

Bio-Techne Market Share:  
>2%

Bio-Techne 5 Year Trailing CAGR:  
~50%

Brands

 Surge in new C&GT Therapies predicted by FDA
Supporting CGT from Development to Clinic

Operational Content Scaling

GMP Proteins
MINNESOTA, USA

- Custom GMP protein manufacturing
- Added 61,000 sq. ft. state-of-the-art GMP facility
- On-line since May 2021

GMP Small Molecules
BRISTOL, UK

- 3 GMP manufacturing zones
- 1 ISO 7 clean room for bottling
- 35,000 sq. ft.
- On-line since 2018

Analytical Tools
WALLINGFORD, CT, USA
SAN JOSE, CA, USA

- ISO 13485-certified space
- 52,000 sq. ft.
- On-line since Fall 2022

Significant Expansion
Immune Cell Therapy Solutions
Every Step of the Way

Our Solutions

Cell Isolation & Culture
- Flow Cytometry
- GMP Cytokines
- GMP Antibodies
- Lovo®
- Cue®

Cell Culture & Activation
- ExCellerate Media
- Antibodies
- G-Rex®
- Namocell

Cell Engineering
- TcBuster™
- Flow Antibodies
- Fluorokines
- Namocell
- RNAscope ISH

Cell Expansion
- GMP Cytokines
- ExCellerate Media

Gold Standard Final Product Characterization
- Lovo®
- Cue®
- Flow antibodies
- G-Rex®

G-Rex®
- G-Rex®
- Lovo®
- Cue®
- Flow antibodies
- Fluorokines
- Luminex® assays
- RNAscope ISH
- Simple Plex
- Simple Western

In Vivo Monitoring
- Lunaphore
- Simple Western

Innovative aseptic immune cell culture solutions powered by our proprietary technologies and ScaleReady commercial partnership.
A Strategic Partnership for Immune Cell Therapy

800+ Clients

Sales, Process Optimization, and Application Support

- WilsonWolf
  - Cell Culture Devices
- Biotechne®
  - GMP Reagents & Gene Editing
- Fresenius Kabi
  - Cell Processing Automation
- G-Rex® Bioreactors
- Cytokines, ExCellerate™ Media, TcBuster™
- Lovo® & Cue® Systems

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Bio-Techne’s Aseptic Immune Cell Therapy Manufacturing Solution

Clinically Proven GMP Media
GMP Closed Cytokine Delivery
G-Rex
*WILSONWOLF
TcBuster Non-viral Gene Engineering
Process Sized GMP Cytokines

*WILSONWOLF 20% ownership investment March 2023, Acquisition agreement option
Our Solution: TcBuster Gene Engineering

Innovative non-viral transposon system for stable gene transfer

Advantages compared to the current standard lentivirus:

- Large cargos with high efficiency
- Shorten timeline from process development to patients
  - TcB: 9-16 weeks
  - Lenti: 13-22 weeks

With Flexibility and Speed

Enables **larger constructs** required by emerging armored CAR T cells and increase **durability of response**
Regenerative Medicine Solutions
Every Step of the Way

Our Solutions
- Flow Cytometry
- GMP Cytokines
- GMP Small Molecules
- ExCellerate Media
- Flow Antibodies
- Luminex® Assays
- Quantikine ELISAs
- Simple Plex
- Simple Western
- MFI
- G-rex®
- Namocell
- TcBuster
- GMP Small Molecules
- Flow Antibodies
- Fluorokines
- RNAscope ISH
- Simple Plex
- Simple Western
- ICE Maurice
- Namocell
- ExCellerate Media
- GMP Cytokines
- GMP Small Molecules
- Flow Antibodies
- Fluorokines
- GatheRex™
- Simple Western
- Single-Cell Western
- Lovo®
- Cue®
- MFI
- Simple Plex
- Flow antibodies
- Quantikine ELISAs
- Fluorokines
- Luminex® assays
- RNAscope ISH
- Simple Western
- MFI
- Namocell
- RNAscope ISH
- Lunaphore
- Flow antibodies
- Quantikine ELISAs
- Luminex® assays
- Simple Plex
- Simple Western

Market leading menu of unique GMP proteins and small molecules to enable breadth of regenerative medicine therapies.
Transformative GMP Regenerative Medicine Reagents

Enabling Targeted Differentiation and Varying Cell Lineages

GMP Proteins & Small Molecules

- **Brodest** offering on the market
- Manufacturing **scaling** in process
- **Expansive** RUO menu

Diverse therapies require comprehensive reagent solutions

- Pluripotent Stem Cells
- Hematopoietic Stem Cells
- Mesenchymal Stem Cells
- Neural
- i-CAR-T
- i-Natural Killer
Cell Therapy Verification Trials

Viral Vector QC | Release Testing | In Vivo Analytics

Test Your Vector Like You Would Test Your Therapeutics with Maurice

Automated Cytokine Profiles on Simple Plex

Highest sensitivity and specificity in Spatial Biology with RNAscope

Differentiated analytics in key steps in the cell therapy workflow
Gene Therapy Solutions

- Vector Production
- Antibodies
- GMP Antibodies
- Simple Plex
- Simple Western

- Vector Analysis
- Maurice
- MauriceFlex
- Simple Western

- In Vivo Monitoring
- Simple Western
- RNAscope
- Antibodies

Our Solutions
Verify with Bio-Techne
Cutting Edge Analytical Technologies

Gene Potency

Absolute protein quantitation and relative potency assays with Simple Western
Ella complements this with targeted assays for potency

Vector Characterization

Identity, stability, and empty/full capsid analysis with Maurice.
Simple Western can characterize vectors in “crude” samples in early development

Viral Titer

Validated Simple Plex assays for titer and process impurities
Simple Western can complement Ella by quantitating titer for hybrid and unusual AAVs

Analytics that support the entry points into customers across the workflow
We have content, including customer publications, for almost every AAV/LVV Critical Quality Attribute (CQAs) for both **Simple Western** and **Maurice**.

### Things you need to measure about the virus

<table>
<thead>
<tr>
<th>Solutions For Critical Quality Attribute (CQA) Characterization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viral Titer</td>
</tr>
<tr>
<td>Gene Therapy (AAV)</td>
</tr>
<tr>
<td>Cell Therapy (LVV)</td>
</tr>
</tbody>
</table>

### Simple Plex now has one of the broadest menus of viral titer assays available.

### Gene therapy potency release testing for an FDA approved gene therapy is now performed quantitatively on Simple Western.
Creating a Destination of Choice

World Class Customer Experience
Powered by AI & Data Science
The Future of Bio-Techne

**Best in Class Content**

**Choice:** Largest selection of content

**Confidence:** Stringent quality standards

**Continued Innovation:** Modernizing & Scaling manufacturing capabilities

**Complete Workflow Capabilities**

**Cutting edge analytical technologies**

Capabilities to accelerate customers from **development to the clinic**

**World Class Customer Experience**

**Data Science driven**, personalized marketing engine

**Customer centric** digital marketplace

Engaging brand and aligned **customer experience**

= Destination of Choice
We Are At a Tipping Point with our Digital Investments

We have substantial value waiting to be unlocked by completing this investment

THE FOUNDATION HAS BEEN BUILT

Bio-Techne Website
Bio-Techne Brand
Single Order Point
Bio-Techne CRM
Bio-Techne Data Platforms
Developing a World Class Customer Experience

Establishing best-in-class capabilities in e-commerce, order management, and post-order interactions

Effectively promote our full portfolio Through a data science driven, personalized marketing engine

Cultivate a cohesive Bio-Techne brand identity Ensuring consistent customer experiences at every touchpoint

Deliver a uniform customer journey Fostering enhanced experiences and cross-selling potentials by consolidating our website properties

Strengthen our business intelligence feedback loop To consistently enhance our customer experience
Benefits to be realized: A virtuous cycle of value

- We Grow Faster
- Customer has Better Experience
- Our Teams are More Productive

**CUSTOMER BENEFITS**
- All the products I need in one place
- Improved order management
- Information I need, when I need it, with less noise to distract me

**REVENUE**
- Leverage of existing traffic to drive awareness & penetration across product lines
- Leverage of capabilities including recommendation engine & personalization to drive increased engagement
- Improved customer loyalty drives repeat purchases

**PRODUCTIVITY**
- Reduced customer care touchpoints on orders
- Reduced calls to customer care for order support
The **Golden Age** of Proteins

- Our markets in cell & gene therapy, biologics and proteomic research are poised to see continued, significant growth.
- Bio-Techne’s best in class reagents, cutting edge analytical tools, research to clinic capabilities, uniquely position us to capture share.
- This combined with investments in overall customer experience and digital marketplace will cement Bio-Techne as the destination of choice for Protein Sciences.
Diagnostics & Genomics Segment

Kim Kelderman
President, Diagnostics & Genomics
Diagnostics & Genomics

Diagnostic Reagents & Controls

Molecular Diagnostics

Spatial Biology
Diagnostics Reagents & Controls

Diagnostic Reagents & Controls

Molecular Diagnostics

Spatial Biology
Bio-Techne, a Leader in Serving the IVD Industry

40+ years in Reagents, Calibrators & Controls

- Hematology
- Glucose
- Molecular
- Blood gas
- Cardiac markers
- Point of Care

Broad menu of diagnostic Antibodies, Antigens, Proteins, and Conjugates

Quality management systems meet the most stringent regulatory requirements
Diagnostics Reagents Market Overview

Current Revenue Base

- **Clinical Controls**
  - $1.1B
  - 4% CAGR
- **IVD Antibodies**
  - $1.3B
  - 6% CAGR

Future Growth Area

Assay Development

- **Assays & Reagents**
  - $1.3B
  - 6% CAGR

Mutual Customer Base
DRD is Evolving to a Complete IVD Partner: From Concept to Kit

- Controls and reagents knowhow resulted in assay expertise
- Assay design pulls through our Content, Reagents and Controls
- Pull through results in sticky, recurring revenues

Strategic Capability in Assay and Controls Development
DRD Key Strategic Themes

1st Choice Outsourcing Partner
Delight current customers and targeted Business Development

Pull Through Reagents & Controls Revenue
Assay development and utilize Bio-Techne content and controls

Operational Excellence
Operations & Quality Systems enable volume expansion

Integrate IVD Raw Materials
Utilize Bio-Techne GMP Antibody and Proteins portfolio

Upgrade Third Party Controls
3rd party controls offering under the Bio-Techne brand
Molecular Diagnostics

Diagnostic Reagents & Controls

Molecular Diagnostics

Spatial Biology

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Molecular Diagnostics Division (MDD):

**ExosomeDx™**

**Asuragen**
Develop MDx testing-kits for high sensitivity testing of challenging targets.

Providing CLIA testing, MDx kits, software, and controls

Exosomes are released by all living cells into biofluids.
Global Megatrends Inform MDD Markets and R&D

- **Precision Medicine**
- **Healthy Aging**
- **Women’s Health**
- **Multiomic Technologies**
- **Artificial Intelligence**

### EXOSOME LBx
**Disease Signatures**
- Build out Prostate Cancer Portfolio
- Partner for high-value applications (i.e., Colorectal)

### ONCOLOGY MONITORING
- Leverage BCR-ABL position
- Ultra-sensitive qPCR kits for solid tumor mutation monitoring (i.e., ESR1)

### REPRODUCTIVE HEALTH
- Multi-gene panels for expanded carrier screening
- Pre-natal screening

### MOLECULAR CONTROLS
- Build proficiency panels
- Expanded OEM relationships

---

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MDD Product Portfolio

**Screening**
- Many patients

**Diagnosis**
- Fragile X
- SMA
- TRIO
- CFTR
- C9orf72
- HTT
- DMPK
- BCR-ABL (CML)

**Monitoring**
- Frequent tests

**Current Products**
- ExoDx™ Prostate Test

**Current Development Programs**
- Carrier Plus
- Prostate (Rule-in)
- Colorectal Cancer
- Sjogren's (Saliva)
- Transplant Rejection

**Commercialization Channels**
- **Urology**
  - Direct
  - Partnered
- **Primary Care Physicians**
  - Partnered
- **Cancer Specialists**
  - Partnered
- **Immunologists**
  - Partnered
- **Clinical Labs**
  - Direct
  - Partnered
- **Transplant Centers**
  - Partnered

**Kitted CLIA**
- Fragile X
- SMA
- CFTR
- TRIO
- SMA
- CFTR
- C9orf72
- HTT
- DMPK

**ExoDx™ Prostate Test**
Bringing Exosomes to the Forefront of Liquid Biopsy

Many liquid biopsy (LBx) products use cell-free DNA (cfDNA) or circulating tumor cells (CTCs). Exosomes are both, a more abundant and a richer source of biological information.

<table>
<thead>
<tr>
<th>Key Properties</th>
<th>CTC</th>
<th>cfDNA</th>
<th>Exosomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyte</td>
<td>RNA+DNA</td>
<td>DNA only</td>
<td>RNA + DNA</td>
</tr>
<tr>
<td>Early Abundance</td>
<td>NO</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Ability to Enrich or Select</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Stability</td>
<td>Good</td>
<td>Poor due to enzyme exposure</td>
<td>High-quality Shielded</td>
</tr>
<tr>
<td>Tissue of Origin</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

One cell secretes tens of thousands of exosomes per day. That cell secretes no cfDNA until it dies, and then, it secretes only two copies of DNA.

ExoRNA + cfDNA captures a higher level of targetable cancer mutations.

ExoLution Plus exoRNA + cfDNA
The ExoDx™ Prostate Test

A non-invasive risk assessment for high-grade prostate cancer (HGPCa), that informs if prostate biopsy is necessary

- Independent of PSA and other standard of care information (e.g. Family history)
- No digital rectal exam (DRE) required
- Progressively validated in two studies with 1,022 patients
- Included in the NCCN guidelines early 2019
- Updated Medicare Coverage 2023, Original in 2019
- Published a 2.5 year (interim) study showing lower Bx rates, longer time to first Bx and >3x lower HGPCa cancer for those stratified with low risk compared to SOC
- > 100,000 Patient tests performed

Key Points:

- Non-DRE urine sample → Extraction of exosomal RNA → Gene signature of exosomal RNA → EPI score

At-Home Collection
Launched in 2020

Increase Patient Compliance

92% patient compliance to physician recommendation to defer biopsy, 72% patient compliance to proceed to biopsy (39% S.O.C.)*
Ultra-Sensitive Solid and Liquid Tumor Monitoring
A standardized monitoring assay for actionable mutations on qPCR

Sample Collection
Whole blood / plasma

ctDNA + exoRNA Isolation
Clinical grade ExoLution Plus™ kit for extraction

qPCR
Kit with all PCR reagents

Data Analysis
Push-button software to automate and streamline results interpretation

Complete Diagnostic Solution Includes:
Sample Prep, PCR Reagents, and Software

Oncology Applications
- Breast
- CNS
- GI
- Bladder
- Skin
- HemOnc
Monitoring: *ESR1* Mutation in HR+ Breast Cancer

Mutations in the estrogen receptor (*ESR1*) occur in up to 40% of metastatic HR+ BC patients and are a leading cause of drug resistance and disease progression.

1L/2L/3L = 1st/2nd/3rd Line therapy
CDK = cyclin-dependent kinase
MRD = minimal residual
SERD = selective estrogen receptor degrader
SERM = selective estrogen receptor modulator

2x longer progression-free survival in *ESR1* mutation-guided clinical trials

**EXISTING ASURAGEN CHANNEL**

Reference Labs
Hospital Labs
Academic Labs
IDN Labs

Exosome based, high sensitivity qPCR-test for a high frequency application
A Novel Multiomic Platform to Drive Test Development

Building a platform to fuel development of next-gen diagnostics for precision medicine

**Source Analyte**
- ctDNA
- exoDNA*
- exoRNA*
- cfDNA Fragments
- cfDNA Methylation
- Protein

**Biomarker Analysis**
- SNPs/Indels
- Fusions
- CNVs
- SNPs/Indels*
- Fusions*
- Diff Expression*
- Splice Variants*
- Fragmentomics
- Methylation Analysis
- Protein Analysis

* Highly Differentiated Offering

**CENTRALIZED TEST OFFERING**
- CLIA laboratories in Waltham, MA and Austin, TX
- Established sample logistics and clinical reporting

**CDx PARTNERSHIPS**

**DECENTRALIZED KIT OFFERING**
- Asuragen model and Channel
- Automated reporting
- Broadly installed instruments
Multiomics Platform Pipeline

Spanning applications in oncology, immunology, and neurology

- **Prostate Cancer (Rule In)**
  - Utilize Urology channel, multiple issued patents
  - Prostate cancer diagnostic

- **Colorectal Cancer**
  - Major LBx partner opportunity
  - Exosome based multiomics
  - Equal or better than SOC.

- **Kidney Inflammation**
  - 2 prov. & 2 pending patents
  - Future apps in pre-transplant

- **Sjogren’s Syndrome**
  - 1 prov. & 1 pending patent
  - Multiple CDx prospects

- **Parkinson’s Disease**
  - Early data suggests feasibility from plasma – Pharma partner

- **Biopharma / CDx**
Screening & Early Detection: Prostate Cancer Rule-In Test

ExoDx Prostate Cancer Rule-In Test will guide which patients should get a biopsy, utilizing our Multiomic platform.

**ExoDx Prostate Intelliscore (EPI) Test**
- NPV focus

**ExoDx Prostate Cancer Rule-In**
- PPV focus

**Patient-Selection/Risk Stratification Test**
- ~3M Men w/ Elevated PSA
- ~2M TAM Tests/Yr

**Active Surveillance (Test Every 3-6 months)**
- ~1.2M Initial Biopsies/Yr
- ~4-6M TAM Tests/Yr

This multiomic test will guide prostate cancer diagnostic pathway through optimized PPV.

EXISTING UROLOGY CHANNEL
Screening & Early Detection: Colorectal Cancer

Leveraging our multi-analyte, exosome platform, we aim to increase the detection rate of pre-cancerous advanced adenomas (AA) and Colorectal Cancer (CRC)

- >40% people do not comply with CRC screening guidelines\(^1\)
- Early detection has a 90% long-term survival rate vs <15% for late-stage disease\(^2\)
- >60% of adults prefer a blood-based test vs. current options\(^3\)
- Exosome based testing indicates significant performance increase over cfDNA analysis alone

**Internal Goal**

Best-in-class blood test for early-stage CRC and AA

---

\(^1\) ACS Colorectal Cancer Facts 2020-2022
\(^2\) Freenome Press Release. January 11, 2022
\(^3\) Guardant Health Internal LUNAR2 Patient Research
AmplideX® Nanopore Carrier Plus Kit
A novel PCR-based, Long-read Sequencing Solution for Carrier Screening (CS)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Drivers</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Pain Point:</td>
<td>Expanding CS Guidelines</td>
<td>11-gene panel</td>
</tr>
<tr>
<td>For a carrier screen there are 5-10</td>
<td>Novel Gene Therapies</td>
<td>AmplideX® PCR</td>
</tr>
<tr>
<td>Cumbersome, Costly &amp; Inferior non-NGS</td>
<td>Increased Awareness for Health Equity</td>
<td>Nanopore Sequencing</td>
</tr>
<tr>
<td>Carrier Screening Assays</td>
<td>Decentralization of reproductive health testing</td>
<td>Automated analysis &amp; reporting tools</td>
</tr>
</tbody>
</table>

EXISTING ASURAGEN CHANNEL

1 Workflow for “Hard-to-do” Carrier Screening Genes
The Power of MDD

Building a Leadership Position in Molecular Diagnostics

- Complete Diagnostic Solutions
- Exosomes + cfDNA = Best in Class Liquid Biopsy Platform
- Channel Strength: Urology, MDx Labs, Pharma, OEM
- Genetics Portfolio
- Multiomic Discovery Platform
- Companion Diagnostics
- Molecular Controls
- >250 Granted & Pending Patents
Spatial Biology

Diagnostic Reagents & Controls

Molecular Diagnostics

Spatial Biology
RNAscope™ the **Gold Standard**

- **47,000+** Unique Probes Sold
- **8000+** Peer Reviewed Publications
- **100M+** Global Revenue
Delivering Spatial Insights Today
True Multiomic Capability

Broadest Range of Multiomic Assays

- RNAseq
- mRNA
- Protein
- Long ncRNA
- Virus
- Point Mutation
- siRNA/ miRNA
- CGT variants
- ASOs
- Splice variants
- Species Specific RNAs

Protein/RNA CoDetection

BasScope™

Advancing Research

- Cancer/Immuno-oncology
- Inflammation/Infection
- Neuroscience
- Gene Therapy
Founded the vision of bringing spatial-omics to tissue analysis.

**COMET™**
The First Open Spatial Biology Platform

- Walk Away Automation with unmatched throughput
- Build custom panels in just a few clicks
- Use your own, existing Antibody libraries with SPYRE™
- Excellent reproducibility and tissue preservation
- End to End-solution including analysis software (Horizon™)

**Company founded**
2014

**Employees**
+120 FTEs

**Growth**
+100% CAGR since 2020

**Patents**
>50 granted

**Based**
Lake Geneva, Switzerland
Spatial Biology Market Landscape

Omics Biology
Spatial + Non-Spatial Detection Methods

Spatial Biology
Protein | RNA | DNA
Any Plex

Spatial (ISH) Transcriptomics
RNA | DNA
Any Plex

Same Slide, Fully Automated, Multiomics Workflow
Lunaphore & ACD

Fast and flexible assay development
- Open choice of targets for RNA and protein
- Leverage your own Abs combined w SPYRE panels

**Tissue Pre-Processing** ➔ **Reagent Loading** ➔ **Slide Loading** ➔ **Probe Hybridization + Amplification** ➔ **Automated RNA Detection** [RNAscope™ HiPlex v2] ➔ **Automated Protein Detection** [seqIF™]

- x (up to) 3 cycles (4 RNA per cycle)
- x n cycles (2 proteins per cycle)

**Same-slide, multiomics:**
- RNAscope™ + seqIF™ (protein)

**Fully automated**
- From probe hybridization to imaging, performed simultaneously

**Horizon Software**
- For image analysis

4 slides / run
Our Vision for Powering Multiomic Spatial Biology

Pathology
Protein biomarkers with clinical utility

Cell Identification
Immune cell repertoire
Established protein markers

Cell Subtypes
RNA markers from single-cell discovery

Cell Functional State
Cytokines, chemokines, growth factors
mRNA, ncRNA, miRNA expression

Cell and Gene Therapies
CAR T, TCR T
AAV, ASOs

Infectious Agents
Viruses
Bacteria (Microbiome)
Automation Partners: Discovery to Clinical Research

**Discovery**
- UltraPlex

**Translational Research**
- Multiplex Protein | RNAscope Multiomic Assays
  - High Plex
  - Low Plex

**Clinical**
- Single Marker RNAscope Assays
  - Dx & CDx

**Automated RNAscope**
The gold standard for biomarker and clinical development

Novel RNA Biomarkers

Acquire Knowledge

Apply Knowledge

Personalized Medicine

100-1000's RNAs

Proven Clinical Assays ASRs GPRs | CE-IVD

Apply Knowledge

Dx & CDx

Leica

Roche
RNAseq Clinical Advantage
Industry Leading Specificity and Sensitivity

### RNAseq HPV ISH Assay

<table>
<thead>
<tr>
<th>Test</th>
<th>Target</th>
<th>Evidence of HPV activity</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC</td>
<td>P16</td>
<td>-</td>
<td>+++ (97)</td>
<td>+ (86)</td>
</tr>
<tr>
<td>DNA ISH</td>
<td>HPV DNA</td>
<td>-</td>
<td>+ (83)</td>
<td>++ (89)</td>
</tr>
<tr>
<td>RNA ISH (RNAseq)</td>
<td>E6/E7 mRNA</td>
<td>✓</td>
<td>+++ (97)</td>
<td>+++ (96)</td>
</tr>
</tbody>
</table>

*Oropharyngeal squamous cell carcinoma*
Fully Automated, Multiomic View of Health and Disease

Widest Menu of Omics

- mRNA
- Protein
- DNA
- ncRNA
- miRNA
- ASOs
- Splice Variants
- circRNA
- GT Vectors
- Engineered CAR

Seamless Transition

Seamless Transition from Translational to Clinical

*Automated Multiomic Solutions*

Proven Clinical Assays

- ai. HPV, EBV, CMV, IgG-K/L

Proven Clinical Assays
Diagnostics & Genomics

Diagnostic Reagents & Controls

Molecular Diagnostics

Spatial Biology

R&D SYSTEMS
CLINICAL CONTROLS

biospacific

Asuragen®

exosomed™

ACD

Lunaphore technologies
DGS Strategic Progress

**Built Out Product Portfolio**

- **DRD**
  - Continued delivery of custom assays and controls for OEM

- **MDD (Exo + ASGN)**
  - Best in class Exosome based liquid biopsy
  - ExoDx Prostate >100k

- **SBD**
  - Market leading RNAscope assays – now with Lunaphore instr.

**Built Channels**

- **DRD**
  - Continued traction in China

- **MDD**
  - Built NA Urology Channel

- **MDD**
  - Built EMEA Laboratory channel

**Built Fundamental Capabilities**

- **DRD**
  - Six Sigma Operational project

- **MDD**
  - Market Access team & Bio informatics teams

- **DGS**
  - Medical / Clinical

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DGS made great strategic progress and has game changing projects ahead

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Unlock the Bio-Techne suite of capabilities for Lunaphore

- **SBD**
  - Build Instrumentation channel with Lunaphore

- **Progress Development pipeline**
  - in MDD

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2024
Financial Overview

Jim Hippel
Chief Financial Officer
FY23 Revenue Breakdown ($1.1B)

**Segments**
- Protein Sciences: 74%
- Diagnostics & Genomics: 26%

**Products**
- Consumables: 81%
- Instruments: 10%
- Services: 7%
- Royalties: 2%

**Geographies**
- Americas: 60%
- APAC: 6%
- China: 10%
- EMEA: 24%

**Markets**
- Pharma/Biotech: 50%
- Academia: 20%
- Distributors: 13%
- Diagnostics: 17%
Deploying Capital to Maximize Shareholder Value

>$3.2B capital deployed since FY13  ➞  ~$11B market cap increase since FY13

$266mm  Strengthened core research reagents (Novus / Prime Gene) & Dx controls portfolios (Bionostics/Cliniqa)

$496mm  Entry into and expansion of proteomic instrumentation business (CyVek / ProteinSimple / Namocell)

$498mm  Spatial Biology kits and instrumentation (ACD / Lunaphore)

$465mm  Liquid Biopsy & Molecular diagnostics (ExosomeDx / Asuragen)

$374mm  Cell & Gene Therapy workflow solutions (Trevigen / Atlanta Biologicals / B-MoGen / Wilson Wolf Investment)

~$2.1B  in acquisitions to expand portfolio & end-markets

~$770mm  directly to Shareholders

~$48mm per year in dividends

~$289mm in share buybacks

~$291mm  CAPEX to support organic growth

Expansion of existing facilities

Equipment to support new production

~$50mm  GMP protein manufacturing facility
M&A Impact to Margin and ROIC

Adjusted operating margin and ROIC temporarily decline following larger acquisitions, but strengthen as acquired businesses continue to scale.
Headwinds to Prior FY26 $2B Rev Target

• Cell & Gene Therapy inflection point delayed due to longer clinical trial processes and recent Biotech spending conservatism: $100M impact

• ExoDx Prostate ramp delayed by timing of LCD reconsideration(s) to mirror NCCN guidelines and recovery of physician office visits due to Covid: $100M impact

• Covid-related macroeconomic slowdown in China: $50M impact

• Unfavorable Foreign Exchange rates: $50M impact

• Overall Biotech funding Covid “hangover”: $??M impact

Targets developed during Covid Halo, did not anticipate Covid Hangover
Exiting Covid Pandemic Stronger Than Ever

Despite the unanticipated headwinds, Bio-Techne is substantially larger and better positioned with its key growth platforms today than before Covid.

### Annual Revenue: FY23 vs. FY20

- Total Bio-Techne: +54%
- Cell & Gene Therapy: +250% (GMP Proteins: +350%)
- Exosome Diagnostics: +150%
- Proteomic Analytical Instruments: +80%
- Spatial Biology: +60%
- China: +65%

As FY23 demonstrated, Bio-Techne’s key growth platforms drive durable and sustainable growth
## Growth Platforms Driving Significant Scale

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</thead>
<tbody>
<tr>
<td>Core Products</td>
<td>~$6B</td>
<td>~10%</td>
<td>Mid-Single Digit</td>
<td>~$9B</td>
<td>~7%</td>
<td>~$1B</td>
<td>~15%</td>
</tr>
<tr>
<td>Proteomic Analytical Instruments</td>
<td>~$3B</td>
<td>~10%</td>
<td>Low-Double Digit</td>
<td>~$7B</td>
<td>~15%</td>
<td>~$1B</td>
<td>~15%</td>
</tr>
<tr>
<td>Spatial Biology</td>
<td>~$5B</td>
<td>~2%</td>
<td>Low-Double Digit</td>
<td>~$13B</td>
<td>&gt;20%</td>
<td>$0.5B-$1.0B</td>
<td>~5%</td>
</tr>
<tr>
<td>Liquid Biopsy &amp; Molecular Diagnostics</td>
<td>~$9B</td>
<td>~1%</td>
<td>Low-Double Digit</td>
<td>~$24B</td>
<td>&gt;20%</td>
<td>&gt;$0.5B</td>
<td>&lt;5%</td>
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<tr>
<td>Cell &amp; Gene Therapy</td>
<td>~$4B</td>
<td>~2%</td>
<td>Low-Teens</td>
<td>~$12B</td>
<td>&gt;30%</td>
<td>$1.0B-$1.5B</td>
<td>~10%</td>
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<tr>
<td></td>
<td>~$27B</td>
<td></td>
<td></td>
<td>~$65B</td>
<td></td>
<td>$4B - $5B</td>
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Innovative portfolio in high growth end markets position Bio-Techne for significant growth
Deep Dive Into Cell and Gene Therapy
Expected to drive ~$2B revenue growth from FY23 to FY33
- GMP protein capacity of ~$1B
- Portfolio of instruments, spatial biology solutions, non-viral gene editing technologies, and other tools enable modular, efficient and cost-effective CGT workflow
- Wilson Wolf acquisition provides industry-leading cell culture solutions, further complementing the workflow and enhancing value proposition for customers

Deep Dive Into Diagnostics
Expected to drive ~$1B revenue growth from FY23 to FY33
- ExoDx Prostate Test adoption and penetration, and platform application expansion into additional prostate cancer offerings, colorectal cancer early detection, solid tumor mutation and others
- CDx & Dx Spatial Biology applications
- Simple Plex ISO 13485 initiative creates significant clinical Dx opportunities, recent facility opening adds >5x cartridge production capacity

Our portfolio is uniquely positioned to scale in the C&GT and Diagnostic end-markets
Action Plans in Place to Deliver on Our Long-term Potential

Potential upside driven by timing of cell & gene therapy approvals and ExoDx pipeline initiatives

**Core Products**
- Lead product innovation and enhance customer experience to maintain leadership in RUO proteins, antibodies, ELISAs, and small molecule

**Proteomic Analytical Instruments**
- Develop new applications, especially in cell and gene therapy, to drive continued instrument adoption in discovery, therapeutics and Dx

**Spatial Biology**
- Leverage ACD and Lunaphore to expand market adoption in translational and clinical applications with best-in-class multiomic and plexing flexibility

**Liquid Biopsy & Molecular Dx**
- Integrate ExoDx Prostate into urologists’ workflows and expand high-value Dx menu in oncology and carrier screening

**Cell & Gene Therapy**
- Provide efficient and scalable workflow solutions, enabling customers to deliver lifesaving therapies

FY23 Core Products
- Proteomic Analytical Instruments
- Spatial Biology
- Liquid Biopsy & Mol. Dx
- Cell & Gene Therapy
- Wilson Wolf

FY28 Target

FY28 Potential

$1.1B

Mid-teens CAGR

$2B

$2.5B

~$2.5B

KEY ACTION PLANS
Key 5 Year Financial Objectives by FY28

- **Revenue CAGR** in mid-teens
- **35% - 40% Adjusted Operating Margin**, depending on future M&A
- **Adjusted EPS CAGR** in high teens
- **Operating Cash Flow** ~20% CAGR
- **Average annual CAPEX** of ~$55mm for capacity and customer digital experience
- ~$5B of “dry powder” available (including purchase of Wilson Wolf and 3.5x EBITDA leverage) for M&A and/or shareholder ROC
- **Prioritize investments** to position our Portfolio for “rinse & repeat” of financial objectives for the following 5yrs through FY33
Questions