




Enabling discovery, safety and
production of tomorrow's therapeutics

NASDAQ: HBIO

HBIO Investor Overview

Sidoti Virtual Conference

September 18, 2024

A large, stylized DNA double helix structure is the central visual element of the slide. It is rendered in a vibrant, multi-colored palette of purples, blues, and pinks, with a textured, almost crystalline appearance. The helix is shown in a perspective view, curving from the bottom left towards the top right. The background is a soft, gradient blue that transitions from a darker shade at the top to a lighter shade at the bottom.

Jim Green, Chairman, President & CEO
Jennifer Cote, CFO & Treasurer

Forward-Looking Statements and Non-GAAP Financial Information

Forward-Looking Statements

This document contains forward-looking statements within the meaning of the federal securities laws, including the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by the use of words such as “may,” “will,” “expect,” “plan,” “anticipate,” “estimate,” “intend” and similar expressions or statements that do not relate to historical matters. Forward-looking statements include, but are not limited to, information concerning expected future financial and operational performance including revenues, gross margins, earnings, cash and debt position, growth and the introduction of new products, and the strength of the Company’s market position and business model and anticipated macroeconomic conditions. Forward-looking statements are not guarantees of future performance and involve known and unknown uncertainties, risks, assumptions, and contingencies, many of which are outside the Company’s control. Risks and other factors that could cause the Company’s actual results to differ materially from those described in its forward-looking statements include those described in the “Risk Factors” section of the Company’s most recently filed Annual Report on Form 10-K as well as in the Company’s other filings with the Securities and Exchange Commission. Forward-looking statements are based on the Company’s expectations and assumptions as of the date of this document. Except as required by law, the Company assumes no obligation to update forward-looking statements to reflect any change in expectations, even as new information becomes available.

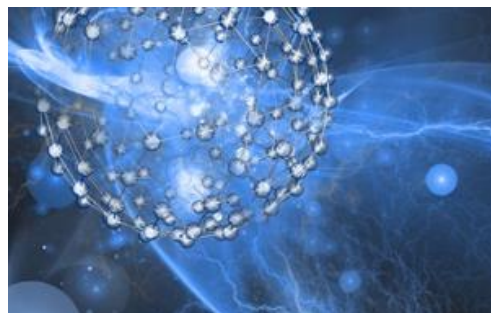
Use of Non-GAAP Financial Information

This document includes non-GAAP financial information including one or more of adjusted operating income (loss), adjusted operating margin, adjusted net income (loss), adjusted EBITDA, adjusted EBITDA margin, adjusted diluted earnings (loss) per share, foreign exchange adjusted revenue, and net debt. We believe that this non-GAAP financial information provides investors with an enhanced understanding of the underlying operations of the business. For the periods presented, these non-GAAP financial measures have excluded certain expenses and income resulting from items that we do not believe are representative of the underlying operations of the business. Items excluded include stock-based compensation, amortization of intangibles related to acquisitions, other operating expenses, loss on equity securities, income taxes and the tax impact of the reconciling items. Management believes that this non-GAAP financial information is important in comparing current results with prior period results and is useful to investors and financial analysts in assessing the Company’s operating performance. Non-GAAP historical financial statement information included herein is accompanied by a reconciliation to the nearest corresponding GAAP measure which is included as exhibits below.

With respect to non-GAAP forward-looking measures, we provide an outlook for adjusted EBITDA margin. Many of the items that we exclude from this forward-looking measure calculation are less capable of being controlled or reliably predicted by management. These items could cause the forward-looking measures presented in our outlook statements to vary materially from our GAAP results.

The non-GAAP financial information provided in this presentation should be considered in addition to, not as a substitute for, the financial information provided and presented in accordance with GAAP and may be different than other companies’ non-GAAP financial information.

Trusted provider of advanced life science tools to leading academic research institutions, contract research organizations, pharmaceutical and bio-tech companies



CELLULAR & MOLECULAR

Technologies and tools necessary for research, discovery and creation of tomorrow's breakthrough drugs, vaccines and therapies



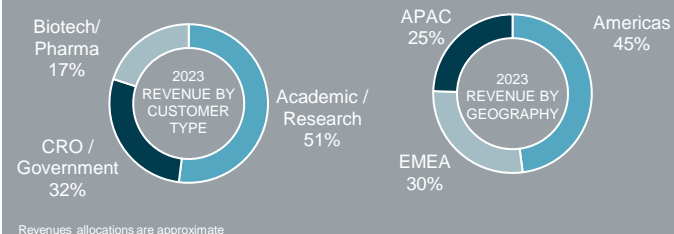
PRE-CLINICAL SYSTEMS

Recognized gold standard for data acquisition, processing, and regulatory report generation for safety pharmacology and toxicology testing

COMPANY PROFILE

- NASDAQ: HBIO
- Global sales footprint, 3 core manufacturing facilities
- Approx. 383 employees, 33 PhD, 54 Masters, 77 Bachelors
- 2023 Revenues: \$112.3M
- FY'23 Adj. EBITDA: \$14.6M (13% of rev), up 34% vs PY*
- 35%+ recurring revenues
- Headquarters: Greater Boston, MA

BALANCED PORTFOLIO



* Non-GAAP measure; see reconciliation to GAAP financial measures in Appendix.

Harvard Bioscience Investment Thesis

Long standing relationships with blue-chip customers

Essential natural growth end markets

Direct sales force complemented by distributors for global reach

High touch sales approach with elite applications & data scientists

Trusted reputation, limited competitors and high switching costs

High barrier innovative technologies

Strong established brands

Expand to high volume applications

Disciplined capital allocation balancing growth and financial performance

Focus on commercial expansion of addressable markets

Long term target: Double digit revenue growth, 60% gross margin, 20% EBITDA margin

Targeted growth strategy

DIVERSIFIED CUSTOMER / REVENUE MODEL

Systems & Software



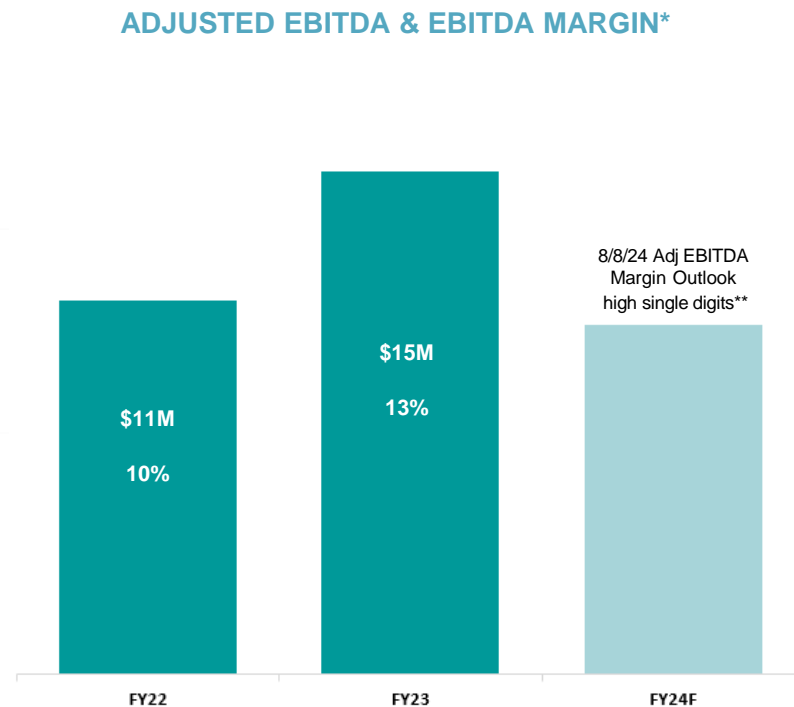
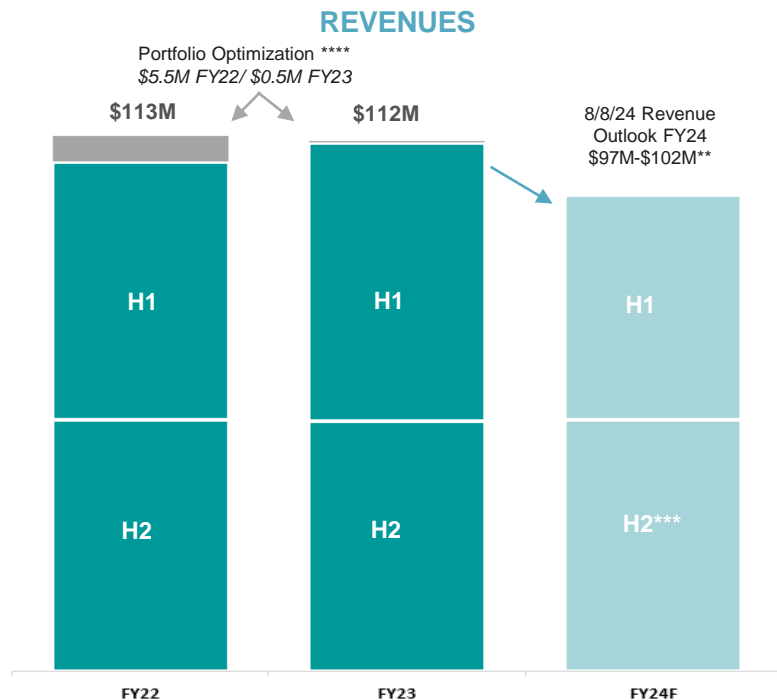
Consumables



Services



Sales and Earnings Trends



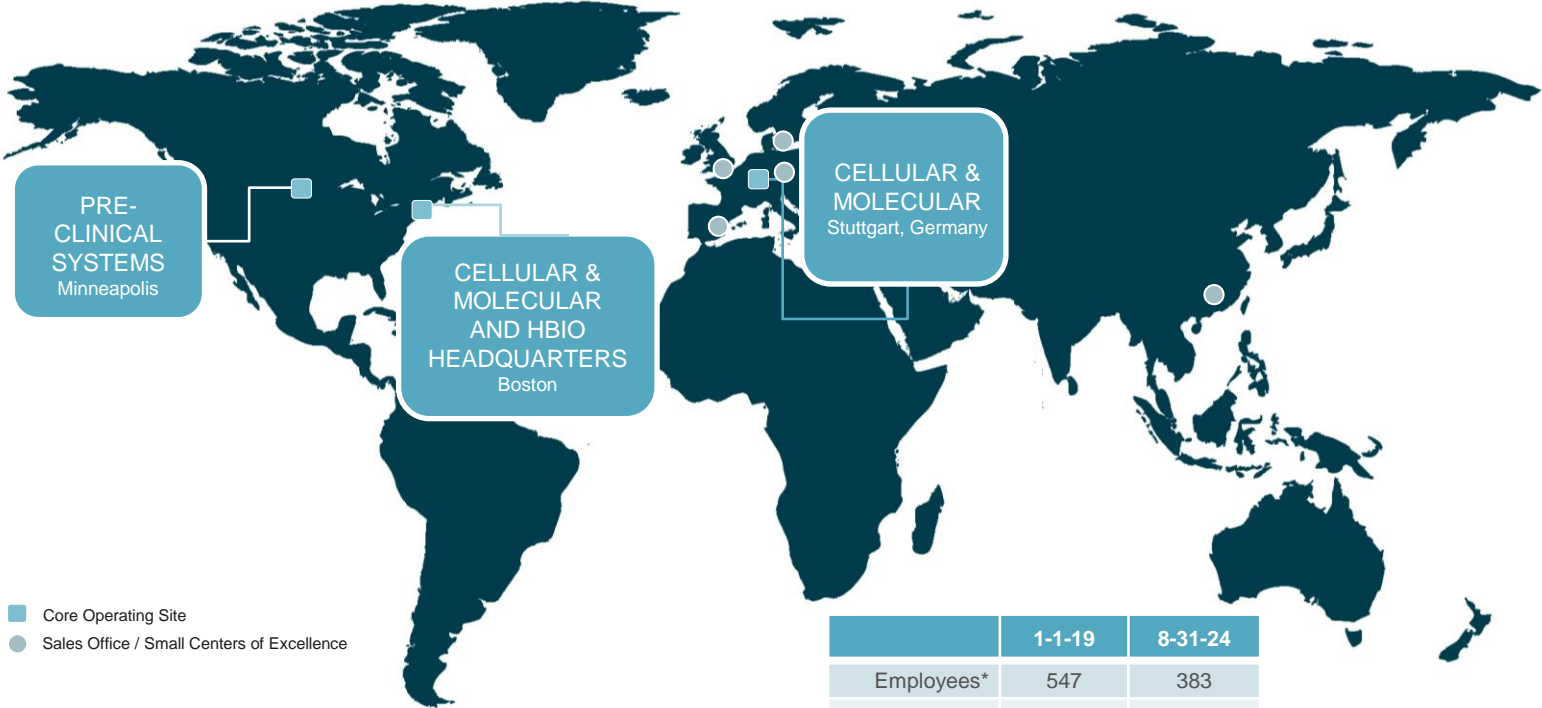
* Non-GAAP measure; see reconciliations to GAAP financial measures in Appendix.

** 2024 Guidance as discussed in Q2 earnings release on August 8, 2024. This presentation is not a reaffirmation of guidance.

*** 2024 H2 revenues and FY24F adjusted EBITDA margin are approximate for illustrative purposes.

**** 2022 Revenue includes \$5.5 million in sales of discontinued products; 2023 Revenue includes \$0.5 million in sales of discontinued products; net difference is \$5.0 million

Today's Global Footprint



- Core Operating Site
- Sales Office / Small Centers of Excellence

	1-1-19	8-31-24
Employees*	547	383
Product Lines	18	10
Sites	14	8

*Headcount is approximate

Essential Technologies Serving Well-funded, High-growth Secular Markets with Demographic Tailwinds

DRIVERS

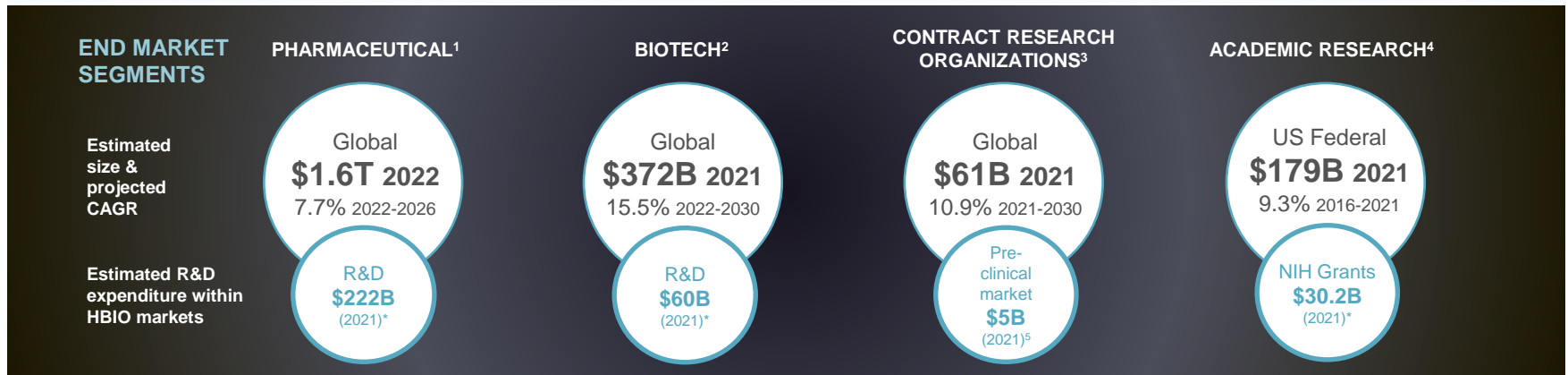
Rising incidence of disease – cardiac, cancer, respiratory, diabetes, obesity, Alzheimer’s, neurological, infectious



Increased funding for research and development of **advanced therapeutics**



Increased demand for research tools, devices and systems that improve efficiency & productivity and **enable therapeutics discovery and safety & regulatory** through bio-production



1) <https://www.researchandmarkets.com/reports/5553406/pharmaceuticals-global-market-report-2022-by>

2) <https://www.acumenresearchandconsulting.com/biotechnology-market>

3) <https://www.emergenresearch.com/request-sample/1221>

4) <https://ncses.nsf.gov/pubs/nsf22323>

5) <https://www.grandviewresearch.com/industry-analysis/preclinical-cro-market>

*Internal estimates calculated based on publicly-available data.

Blue Chip Customer Base



ACADEMIC RESEARCH

- Scientific Research labs primarily government & grant funded
- Early discovery of new novel drugs and compounds for therapies and vaccines
- Advanced cellular testing & gene editing



CONTRACT RESEARCH ORGANIZATIONS

- Pre-clinical studies to determine safety and efficacy of new pharmaceuticals
- Pharmaceutical companies are outsourcing significant pre-clinical activities to CROs



BIOTECH, PHARMACEUTICAL

- Perform early discovery and then transition from discovery through pre-clinical regulatory and on to production
- Leverage discoveries from academics & bio-techs
- Bridge to bio-production



Value Proposition

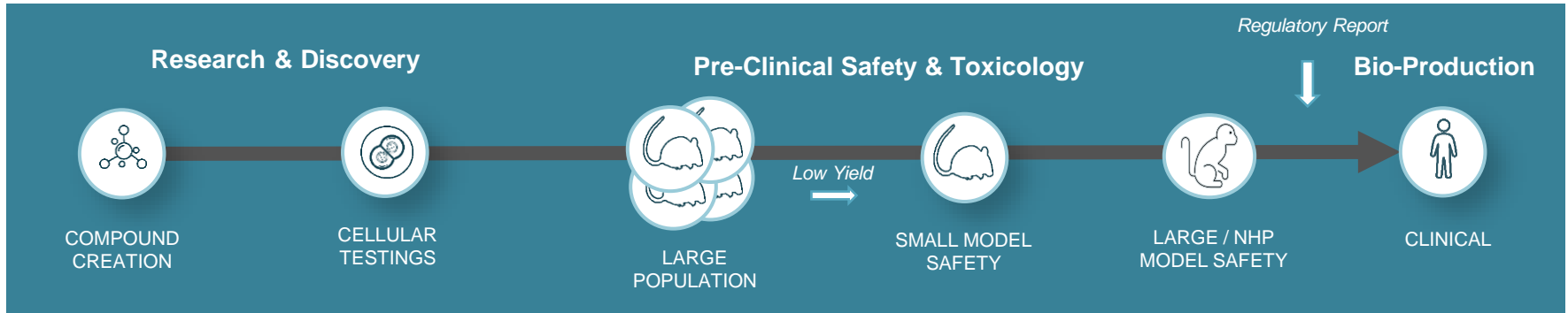
Breakthrough technologies and applications, increase innovative publications

Reduce test cycle-time, increase volume and study types, drives CROs revenue growth

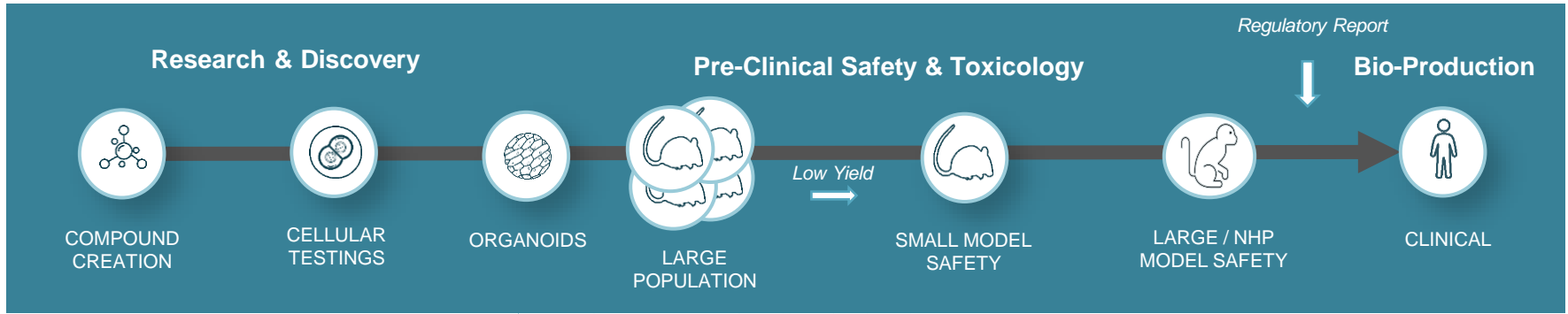
Reduce development cycle time means more compounds drives BioPharma revenue growth

Subset of blue-chip recurring customers

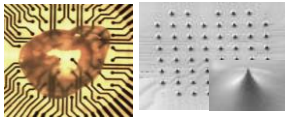
Drug Development Cycle: Today



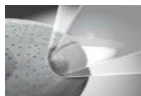
Reducing Cycle Time: Introducing the MeshMEA™ Organoid Platform



Cellular Platforms (Electrophysiology)



Micro Electrode Array MEA

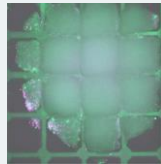


Patchclamp (Individual Cell)

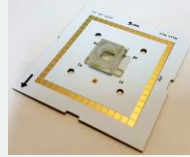
BTX Electroporation / Electrofusion

First: MeshMEA Organoid Platform

Mesh



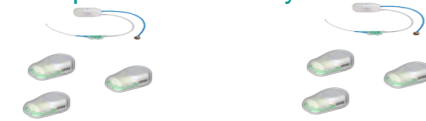
Consumable chip



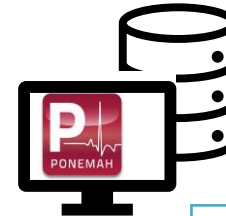
In-Vitro Electrophysiology Analysis

- Reduce test time/cost, increase yield
- Neuro and cardiac longitudinal studies
- Refine/Reduce/Replace animal models

Implanted Telemetry



VivaMARS



Tera Byte Data Analysis



BTX

New Product Introductions: Focused on Commercialization

STRENGTHEN THE BASE: DELIVER > MARKET GROWTH



PRECLINICAL



CMT

- Ponemah™ Enterprise Data Acquisition/Analysis GLP Platform
- Extend Leadership in wireless telemetry – Introduced SoHo
- Introduced Hi-volume GLP Neuro-behavioral (VivaMARS™)
- Well established cellular/molecular/inhalation-respiration technologies for research/discovery
- Recurring revenue streams from consumables and services

~85% of FY23 Rev

EXPAND TO HIGH GROWTH: BIO-PRODUCTION



CMT

- Established BTX brand for electroporation/electrofusion
- Supports latest applications in cell and gene editing, cell and gene therapy CGT
- Introduced BTX for bioproduction
- Introduced Amino Acid Analysis for bioproduction

~10% of FY23 Rev

EXPAND TO HIGH GROWTH: IN-VITRO ORGANOID APPS



CMT-
ORGANOIDS

- Introduced breakthrough MeshMEA Organoid Platform
- Leverage leadership position in advanced electrophysiology
- Adapting our leading MEA technology to emerging organoid applications in neuro and cardiac safety toxicology

~5% of FY23 Rev

2024 New Product Introductions: Supports Long Term Growth Targets

Growth Category	Product Line	Application	Customers	Commercial Status	Key Trade Show Product Focus
Base	<ul style="list-style-type: none"> • SoHo™ Shared Housing Telemetry • VivaMARS™ 	<ul style="list-style-type: none"> • Safety Pharmacology • Toxicology 	<ul style="list-style-type: none"> • CROs • Biopharma • Academics 	<ul style="list-style-type: none"> • Q3: Soho Production Shipments • Q4: VivaMARS Additional Shipments 	<ul style="list-style-type: none"> • Federation of European Neuroscience Societies • Safety Pharmacology Society (September) • Society for Neuroscience • American College of Toxicology
Electroporation & Bridge to Bioproduction	<ul style="list-style-type: none"> • BTX™ Electroporation • Amino Acid Analysis 	<ul style="list-style-type: none"> • Electroporation • Bioproduction 	<ul style="list-style-type: none"> • Biopharma 	<ul style="list-style-type: none"> • BTX in Production • Q3: AAA cGMP Production Shipments 	<ul style="list-style-type: none"> • International. Society for Stem Cell Research • Bioprocessing Summit
MeshMEA™ / Organoid	<ul style="list-style-type: none"> • MEA Systems • Mesh Organoid Sensors 	<ul style="list-style-type: none"> • Neuro Research • Cardiac Research • In-Vitro Safety Pharmacology & Toxicology 	<ul style="list-style-type: none"> • Academics • Biopharma • Advanced CROs 	<ul style="list-style-type: none"> • Q2: Beta Sites in Operation • Q3/Q4: Early Adopters Shipments • Q1'25: Production 	<ul style="list-style-type: none"> • Federation of European Neuroscience • Safety Pharmacology Society (September) • International. Society for Stem Cell Research • Society for Neuroscience • American College of Toxicology

Investment Thesis: Deliver Strong, Profitable, Long-Term Growth

**NEW PRODUCT INTRODUCTIONS FOCUSED ON TOP-LINE GROWTH
& RECURRING REVENUES**

**LARGE, LOYAL CUSTOMER BASE IN DRUG RESEARCH & DISCOVERY,
SAFETY & REGULATORY, AND BIO-PRODUCTION MARKETS**

**FOCUSED ON LONG TERM DOUBLE DIGIT TOPLINE GROWTH, 60% GROSS
MARGIN & 20%+ ADJUSTED EBITDA MARGIN**



Enabling discovery, safety and
production of tomorrow's therapeutics

Thank You

Appendix

Reconciliation of GAAP to Non-GAAP Financial Measures

	(in thousands)	
	Year Ended 31-Dec-22	Year Ended 31-Dec-23
GAAP net loss	\$ (9,516)	\$ (3,415)
Stock-based compensation	4,411	5,000
Acquired asset amortization and impairment	6,236	5,561
Settlement, restructuring, & other	5,603	253
Unrealized loss on equity securities	-	632
Income taxes	(1,689)	(1,604)
Adjusted net income	5,045	6,427
Depreciation	1,338	1,440
Interest and other expense, net	2,426	4,221
Adjusted income taxes ⁽¹⁾	2,026	2,463
Adjusted EBITDA	\$ 10,835	\$ 14,551
Revenues	\$ 113,335	\$ 112,250
Adjusted EBITDA margin ⁽²⁾	10%	13%

(1) Adjusted income taxes includes the tax effect of adjusting for the reconciling items using the tax rates in the jurisdictions in which the reconciling items arise.

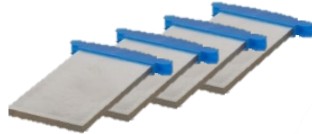
(2) Adjusted EBITDA margin % is calculated as Adjusted EBITDA / Revenue.

Expand to Bio-Production: BTX Electroporation as a Bridge to Bio-Production

HBIO IS A PIONEER IN ELECTROPORATION AND ELECTROFUSION DRIVING NOVEL DISCOVERIES IN DRUG CREATION



AgilePulse™ MAX



Consumable: Flatpack
Reaction Chamber



ECM 2001+

Bio-Production Applications and Configuration

- Used for today's most challenging cell modifications, CAR T-Cell transfection, monoclonal antibodies, Cell and Gene Therapy (CGT), CRISPR
- Ideal for bioproduction when Biotech or Pharma customers utilize our system to create the original compound
- Low barrier transition to production, faster time to market and reduced cost



Bio30+
AAA system

Amino Acid Analyzer (AAA)

- High precision amino acids/protein analysis
- For biologic therapies that rely on precise amino acid content
- Enables on site bioproduction testing of buffers and solutions to improve production cycle time