Harvard Bioscience

Enabling discovery, safety and production of tomorrow's therapeutics

# HBIO Investor Overview

Jim Green, Chairman, President & CEO

November 16, 2023

# 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. 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 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.

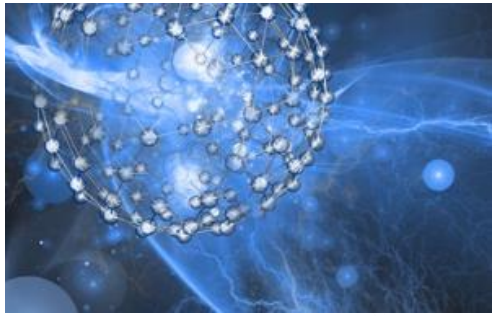
**Management’s Use of Non-GAAP Financial Information**

This document includes non-GAAP financial information including one or more of adjusted operating income (loss), adjusted net income (loss), adjusted EBITDA, adjusted EBITDA margin, adjusted diluted earnings (loss) per share, foreign exchange adjusted revenue, net debt and net leverage ratio. 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, litigation settlement, restructuring and other costs, unrealized gain/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 forward-looking measures, we provide an outlook for adjusted EBITDA margin, and net leverage ratio. Many of the items that we exclude from these forward-looking measure calculations 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 reported net income and other 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.

# Most trusted partner of leading academic research institutions, contract research organizations, pharmaceutical and bio-techs in the discovery, production, and safety & regulatory compliance of tomorrow's life-saving therapies.


## CELLULAR & MOLECULAR TECHNOLOGIES (CMT)

- Academic Research / BioPharma Discovery
- Leader in Electroporation / Electrofusion for gene editing
- Leader in high-density Micro Electrode Arrays (MEA) for advanced cellular applications

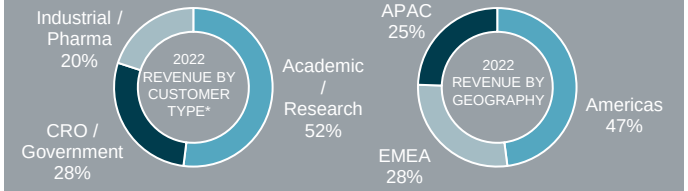
## PRE-CLINICAL SYSTEMS

- Market leader GLP telemetry systems for safety pharmacology and toxicology regulatory reporting
- Data collection, analysis and regulatory report generation required prior to phase 1 clinical
- Widest range of wireless endpoint monitoring

## COMPANY PROFILE

- Global sales footprint, 3 core manufacturing facilities
- Approx. 430 employees, 33 PhD, 54 Masters, 77 Bachelors
- YTD Q3'23 Revenue: $84.1M (incl -$4.1M net discontinued)
- YTD Q3'23 Adjusted EBITDA*: $10.9M (13% of rev), up 53% over PY
- 35%+ recurring revenues
- Founded 1901, Public Listing Dec. 2000 "NASDAQ: HBIO"
- Headquarters: Greater Boston, MA

## BALANCED PORTFOLIO




2022 Revenue: Revenues by customer type include estimation for small % of revenues

** Non-GAAP measure, reconciliations to GAAP financial measures are available in Appendix*

# Harvard Bioscience Highlights

Essential, secular growth markets, high barriers, few competitors

Growing global marquee customer base

Global sales, application science and service structure

Highly effective sales channel supported by elite scientific applications scientists

Technology leadership competitive advantage with high barrier innovative technologies

High barrier innovative technologies

Robust pipeline of next-gen solutions

Strong discipline, lean operating platform

## DIVERSIFIED CUSTOMER / REVENUE MODEL

**Systems & Software**

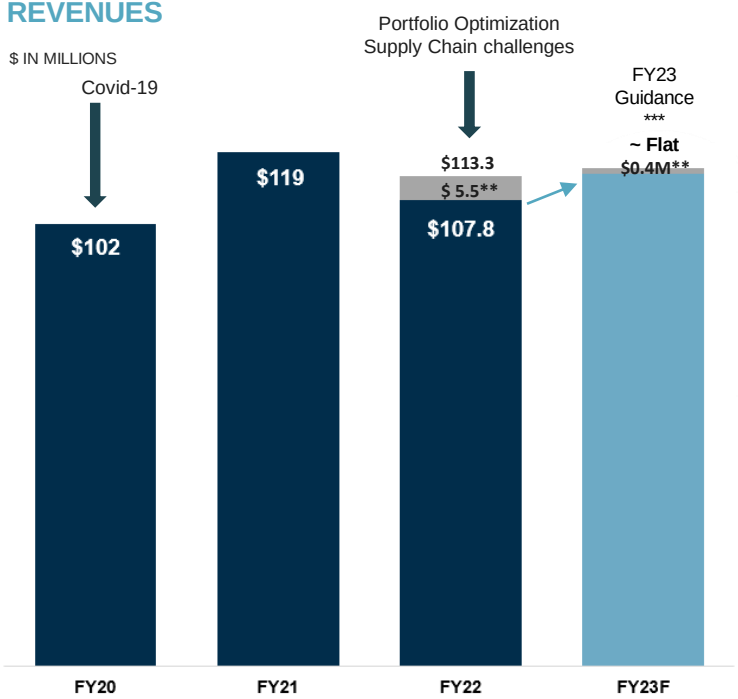
**Consumables**

**Services**

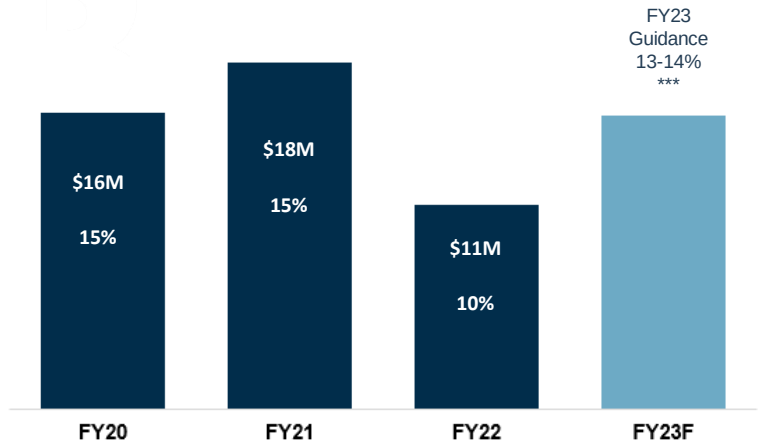
# Sales and Earnings Trends

FY23 revenue growth projected to resume; recovery to consistent and growing adjusted EBITDA margins

## REVENUES

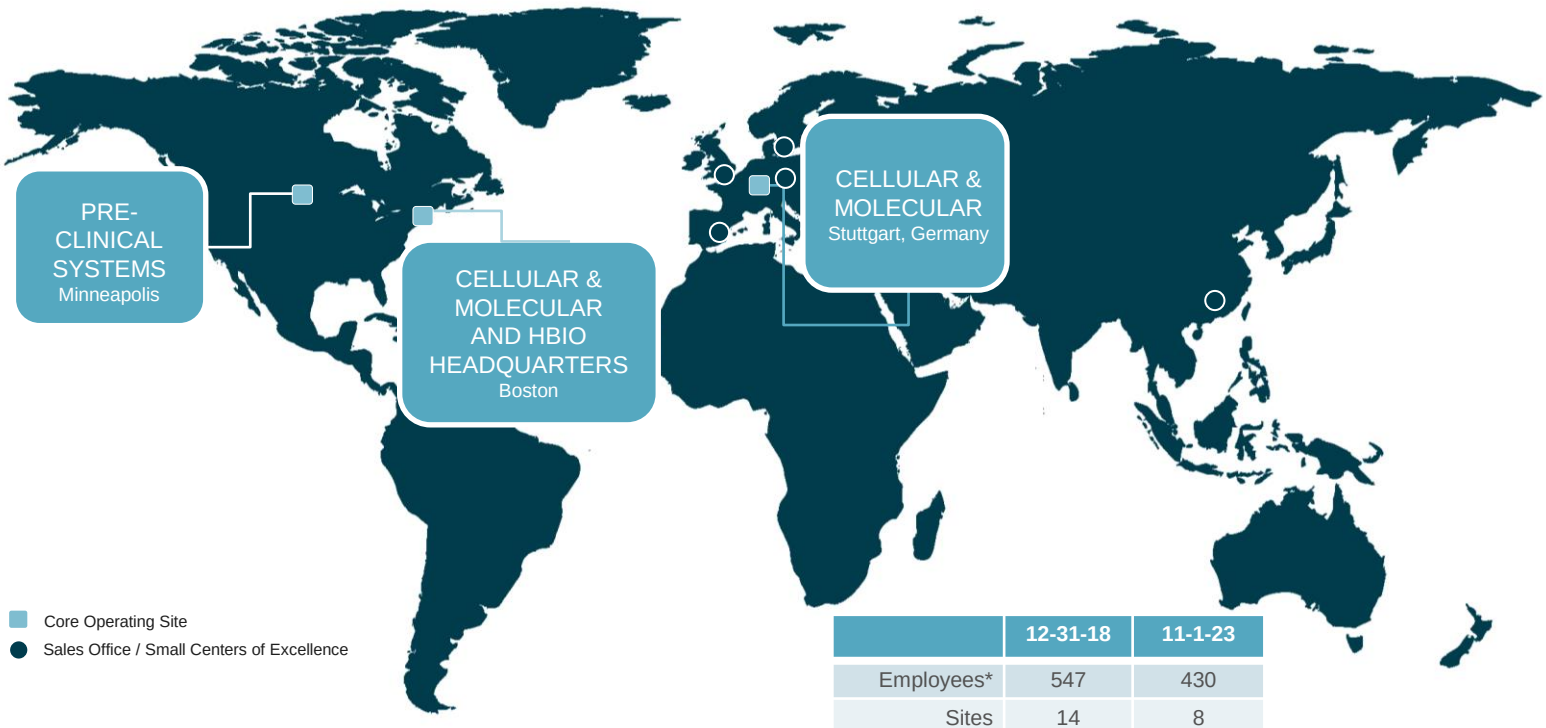



## ADJUSTED EBITDA & EBITDA MARGINS*




** Non-GAAP measure, reconciliations to GAAP financial measures are available in Appendix.*
*** 2022 Revenue includes $5.5 million in sales of discontinued products; 2023 Revenue includes estimated $0.4 million from sales of discontinued products; net difference is $5.1 million.*
**** FY23 Guidance as presented in Q3 earnings release on November 7, 2023. This presentation is not a reaffirmation of guidance.*

# Today's Global Footprint




| | 12-31-18 | 11-1-23 |
|---|---|---|
| Employees* | 547 | 430 |
| Sites | 14 | 8 |

*Headcount is approximate*

# Serving Well-funded, High-growth Secular Markets Demographic Tailwinds

## DRIVERS

**Rising incidence of disease** – cardiac, cancer, immunology, 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 thru bio-production**

## END MARKET SEGMENTS

| | PHARMACEUTICAL[1] | BIOTECH[2] | CONTRACT RESEARCH ORGANIZATIONS[3] | ACADEMIC RESEARCH[4] |
|---|---|---|---|---|
| **Estimated size & projected CAGR** | Global **$1.6T 2022** 7.7% 2022-2026 | Global **$372B 2021** 15.5% 2022-2030 | Global **$61B 2021** 10.9% 2021-2030 | US Federal **$179B 2021** 9.3% 2016-2021 |
| **Estimated R&D expenditure within HBIO markets** | R&D **$222 B**(2021) * | R&D **$60B** (2021)* | Pre-clinical market **$5B** (2021)[5] | NIH Grants **$30.2B** (2021)* |

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 bioproduction

MGH 1811 · MAYO CLINIC · UNIVERSITY OF OXFORD · UCSF University of California San Francisco · Duke University · UNIVERSITY OF CAMBRIDGE · HARVARD UNIVERSITY · CDC Centers for Disease Control and Prevention

charles river · labcorp · COVANCE · MEDICILON 美迪西生物医药 · WuXi AppTec · ALTASCIENCES · inotiv · BATTELLE

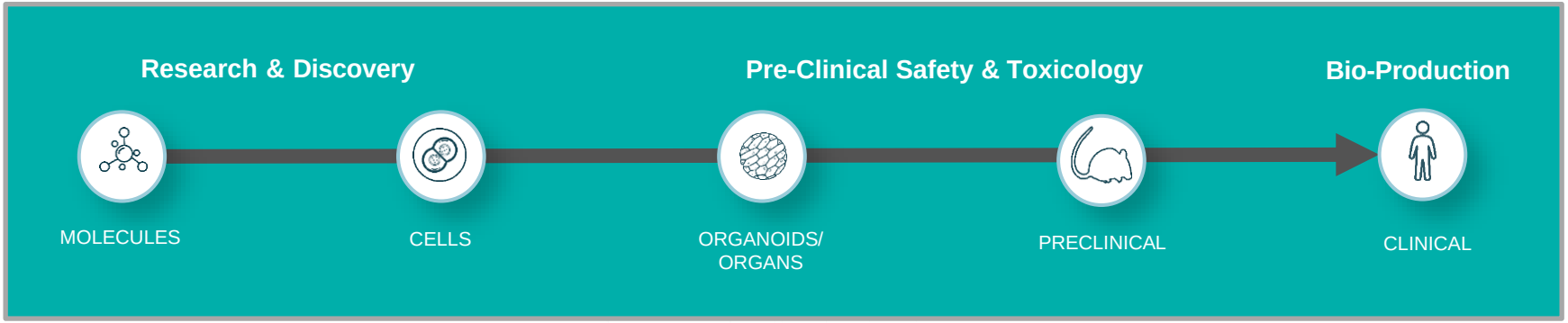
AstraZeneca · REGENERON · abbvie · Pfizer · gsk · Lilly · SANOFI · BAYER · NOVARTIS · MERCK

***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 |

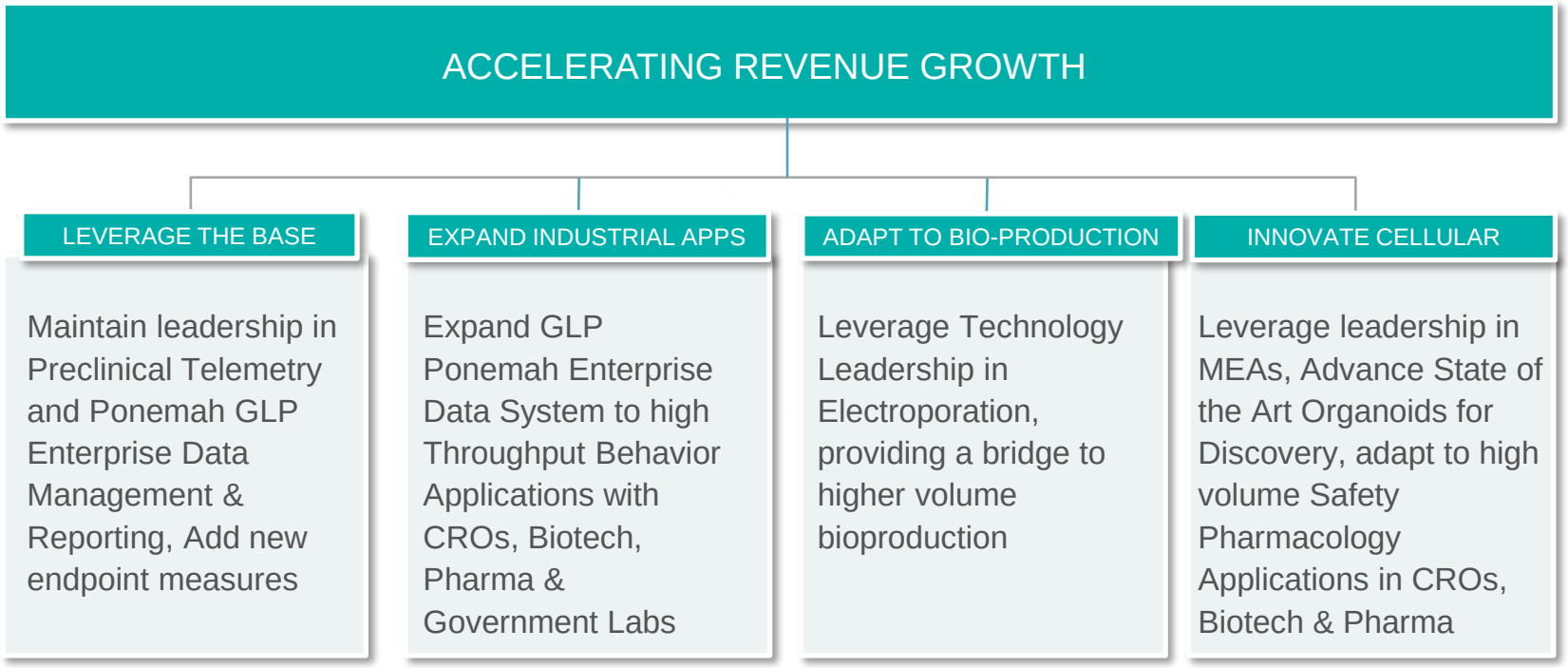
*Subset of blue-chip recurring customers*

# *Extend Technology Leadership in Academic Research & Discovery*




## *Adapt Technologies to High Volume CRO & Bioproduction Applications*

# 2023-24 Strategic Growth Drivers



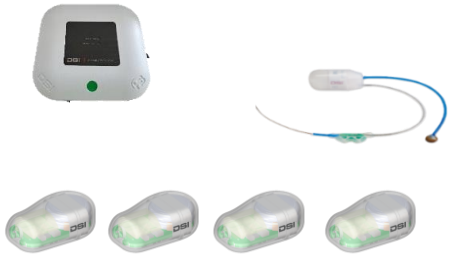
# Leverage the Base
## Expand our Industry Leading Telemetry & Ponemah Data Management Platform

### SoHo™ Next Generation Telemetry Platform

Just introduced at 2023 Society for Neuroscience

- Supports simultaneous multi-animal telemetry in a more natural shared housing environment
- Builds on our market leading GLP compliant telemetry and Ponemah enterprise data collection, management and regulatory reporting platform
- Leader in wireless real-time telemetry and implantable devices for animal model research from mice to primates
- Size matters – complements our full offering from the smallest to the largest animal models
- Supports customer business with reduced test cycle time for expanding customer revenue

***SUPPORTS CUSTOMER REQUIREMENT FOR SAFETY AND REGULATORY APPROVAL FOR ALL THERAPIES PRIOR TO HUMAN CLINICAL USE***



# Expand High Volume Industrial Applications
## Builds on Our Industry Leading Telemetry & Ponemah Data Management Platform

Just introduced at 2023 Society for Neuroscience


**Target Customers: CROs, Pharma, Gov Labs, ACA Cores**

Application
- Drug discovery & development up to 100 subjects
- Neuropharmacology / neurotoxicity / safety pharma
- High throughput automated "lights out" operation
- Operation remote monitored

Value Proposition
- Industry Leading GLP Ponemah Enterprise SW
- Significant lower operating costs
- Significant reduced test cycle time drives revenue
- Benchmarked: >2X Throughput @ 50 subjects

VivaMARS

# Adapt 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

### Applications

- Cell modification, CAR T-Cell creation, CGT
- Electrofusion including monoclonal antibody generation
- Other CRISPR related applications
- Expanding / bridge to bio-production

### Electroporation / Electrofusion Consumables

- General Use Cuvettes
- In Vitro Coaxial Chambers
- Flat Pack Higher Volume Reaction Chambers
- Buffers

**Consumable: Flatpack Reaction Chamber**

### Electroporation / Electrofusion Systems

**Drug Discovery Configuration:** Market leader for high flexibility and ease of use for transfecting the most challenging cell lines

**Bio-Production Configuration**: Optimum where Biotech or Pharma customer utilized our BTX to create the compound

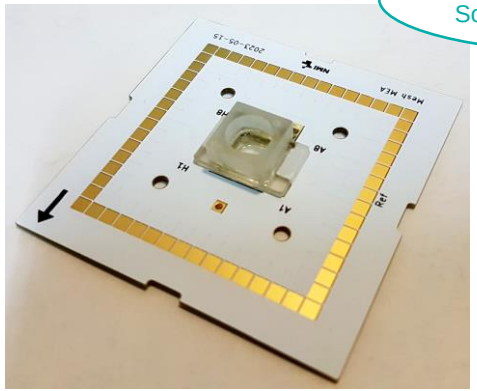
**ECM 2001's**

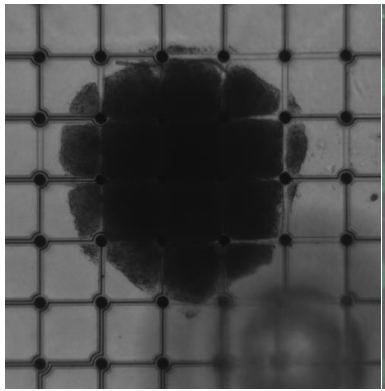
# Innovate: Mesh MEA (Micro Electrode Array) Organoid Platform

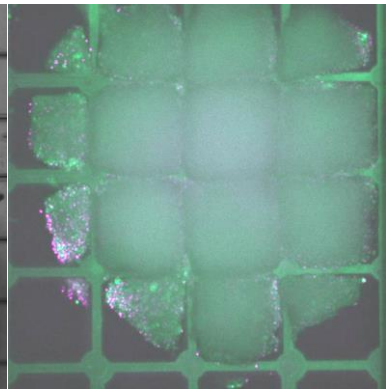
## MOVING TO HUMAN & PATIENT-DERIVED ORGANOIDS

| | | |
|---|---|---|
| Today's Drug Testing | Immortalized Cells | Animal Model |
| Future Drug Testing | Human or Patient Derived Organoids | |

Just introduced at 2023 Society for Neuroscience







- Human organoid as early proxy for animal model
- Leverage our leading MEA acquisition, software apps
- Measure from inside the organoids
- Multi-dimensional cellular measurements
- Targets emerging use of organoids in discovery and safety

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

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

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

**FOCUSED ON LONG TERM TOPLINE GROWTH WITH 60% GROSS MARGINS AND 20%+ ADJUSTED EBITDA MARGINS***

** Non-GAAP measure, reconciliations to GAAP financial measures are available in Appendix*


HB Harvard Bioscience
Enabling discovery, safety and production of tomorrow's therapeutics
Thank You

# Appendix:

# Reconciliation of GAAP to Non-GAAP Financial Measures

**HARVARD BIOSCIENCE, INC.**
**Reconciliation of GAAP to Non-GAAP Financial Measures**
**(in thousands)**

| | Year Ended 31-Dec-20 | Year Ended 31-Dec-21 | Year Ended 31-Dec-22 | Q3 YTD'22 30-Sep-22 | Q3 YTD'23 30-Sep-23 |
|---|---|---|---|---|---|
| **GAAP net loss** | **($7,810)** | **($288)** | **($9,516)** | **($7,850)** | **($1,597)** |
| Stock-based compensation | 3,647 | 4,169 | 4,411 | 3,401 | 3,618 |
| Acquired asset amortization and impairment | 5,920 | 6,018 | 6,236 | 4,588 | 4,167 |
| Settlement, restructuring, & other | 6,042 | 4,462 | 5,603 | 4,533 | 46 |
| Unrealized loss on equity securities | - | - | - | - | 374 |
| Income taxes | (1,469) | (3,387) | (1,689) | (1,409) | (1,919) |
| **Adjusted net income** | **6,330** | **10,974** | **5,045** | **3,263** | **4,689** |
| Depreciation | 1,712 | 1,603 | 1,338 | 1,024 | 1,054 |
| Interest and other expense, net | 5,637 | 2,206 | 2,426 | 1,889 | 3,095 |
| Adjusted income taxes (1) | 1,987 | 3,534 | 2,026 | 972 | 2,063 |
| **Adjusted EBITDA** | **$15,666** | **$18,317** | **$10,835** | **$7,148** | **$10,901** |
| **Revenue** | **$102,100** | **$118,904** | **$113,335** | **$84,908** | **$84,097** |
| **Adjusted EBITDA margin (2)** | **15.3%** | **15.4%** | **9.6%** | **8.4%** | **13.0%** |

*(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.*