

Effective Strategies in Developing Accelerator Models

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Richard A. Bendis
President & CEO
BioHealth Innovation, Inc.



The Region:

Central Maryland

Unrivaled Research Assets

+ 59 Federal Laboratories, Centers, and Institutes

Annual Maryland R&D Investment

+ Federal: \$12 billion

JHU/USM: \$3.5 billion



An Innovation Intermediary

Align local technologies, assets and resources
to advance innovation

Regionally-oriented

Private-public partnership

501(c)(3) nonprofit

Market-driven

Private sector-led

**Technology
Focus**

E-Health

Therapeutics

Mobile Health

Medical Devices

Healthcare Services

Electronic Medical Records

BioHealth Cyber Security

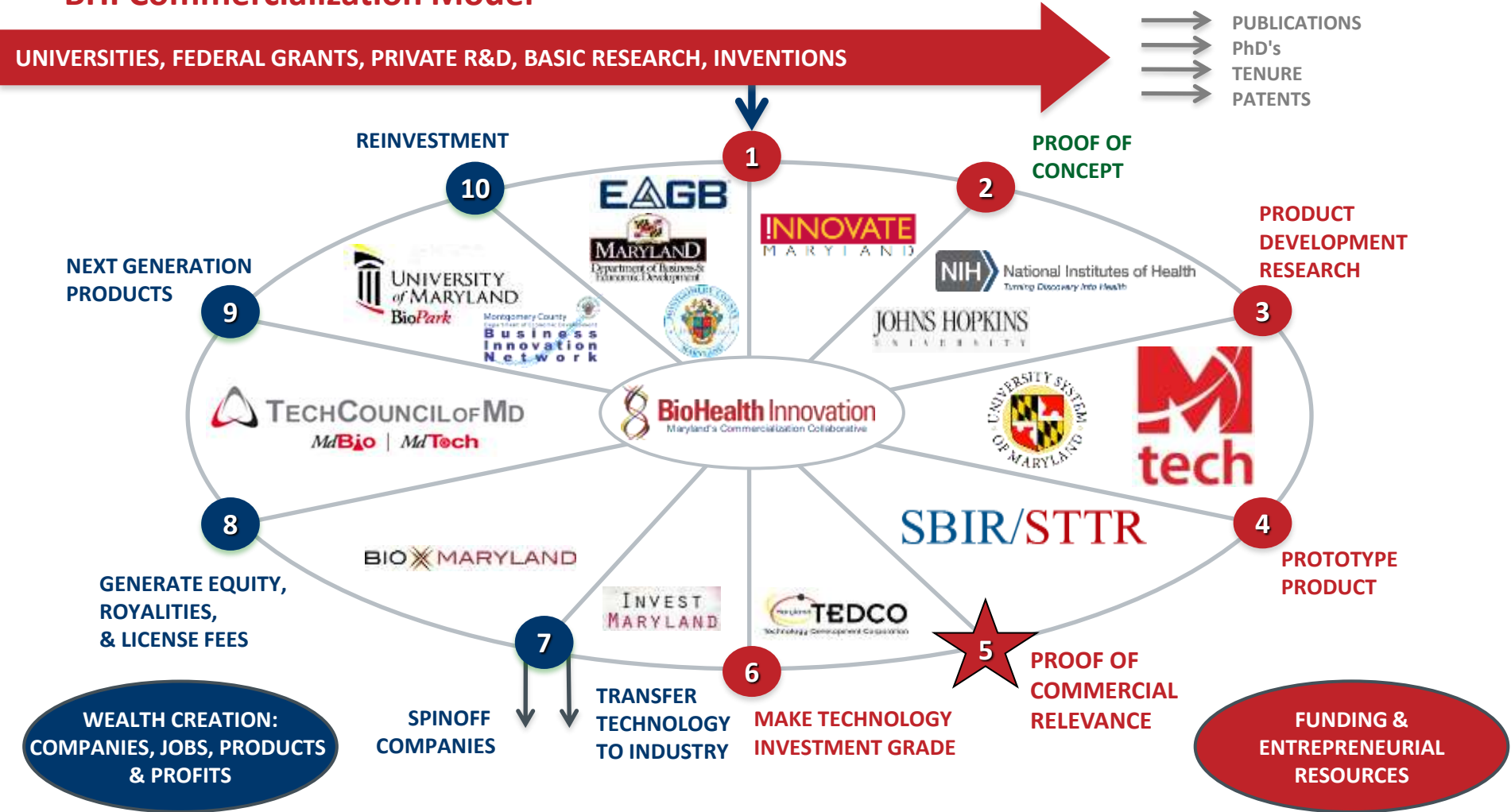
Health Informatics

Diagnostics

Partners and Sponsors



BHI Commercialization Model



Innovation Paradigm Shift

Proof of

CONCEPT

(Technological Feasibility)

Laboratory Push

“It Works!”



PROOF OF

COMMERCIAL RELEVANCE

(Market Pull)

“It Works To Solve A Problem”

“I’ll Buy It”



What is an Entrepreneur in Residence?

An active partner with **research** institutions

**Todd
Chappell**



- + 13 Years Scientific
- + 4 Years Financial / Venture Capital
- + 13 Years Entrepreneurial Management

”I thought that the BHI EIR experience would lead me to my next startup... but instead I now feel like a kid in a scientific candy store with the unlimited opportunities of the EIR program becoming its own interesting startup.”

Our Entrepreneur in Residence:

Todd Chappell

+ 30 NIH Postdocs and Interns



Identify



Evaluate



**Transfer /
Startup**

- + Drugs
- + Vaccines
- + Health IT
- + Diagnostics
- + Therapeutics
- + Medical Devices

"The NIH OTT/ BHI EIR program helps our 150 technology transfer professionals gain access to real-time needs of industry, the market, and the investment community."

Mark Rohrbaugh

Director of the NIH
Office of Technology Transfer

NIH/OTT:

First Year Outcomes



97

Innovations
identified



63

Innovations
progressed



12

Innovations in
Primary Analysis



5

Client Relationships

1

NCI Startup

1

Industry License Pending

Client Companies



Advanced Personalized Diagnostics, LLC

**Personalized
Cancer Care**

Offers chemosensitivity profiling services to provide personalized treatment plans



Ahead Research, Inc.

**Personalized
Diagnostics**

Web/Mobile application that matches patients to high quality healthcare providers



Mimetas

Pharmaceutical

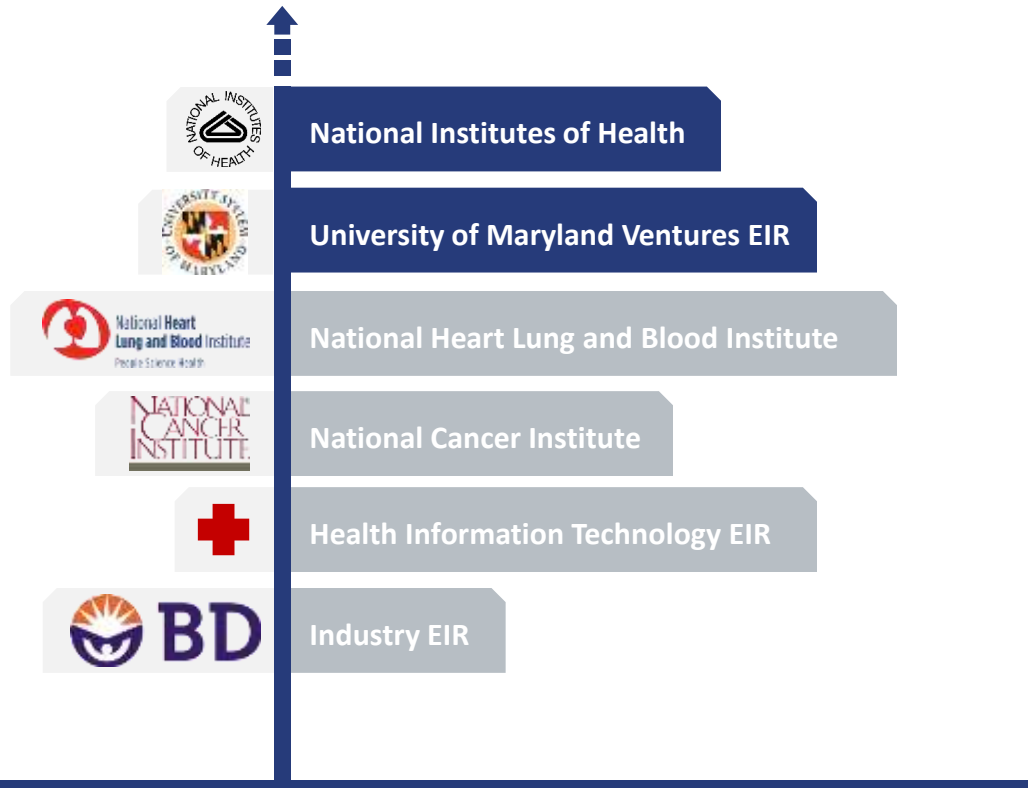
Organ-on-a-Chip solutions as an early screening model to predict toxic side effects and drug efficacy



Perceptive Navigation, LLC

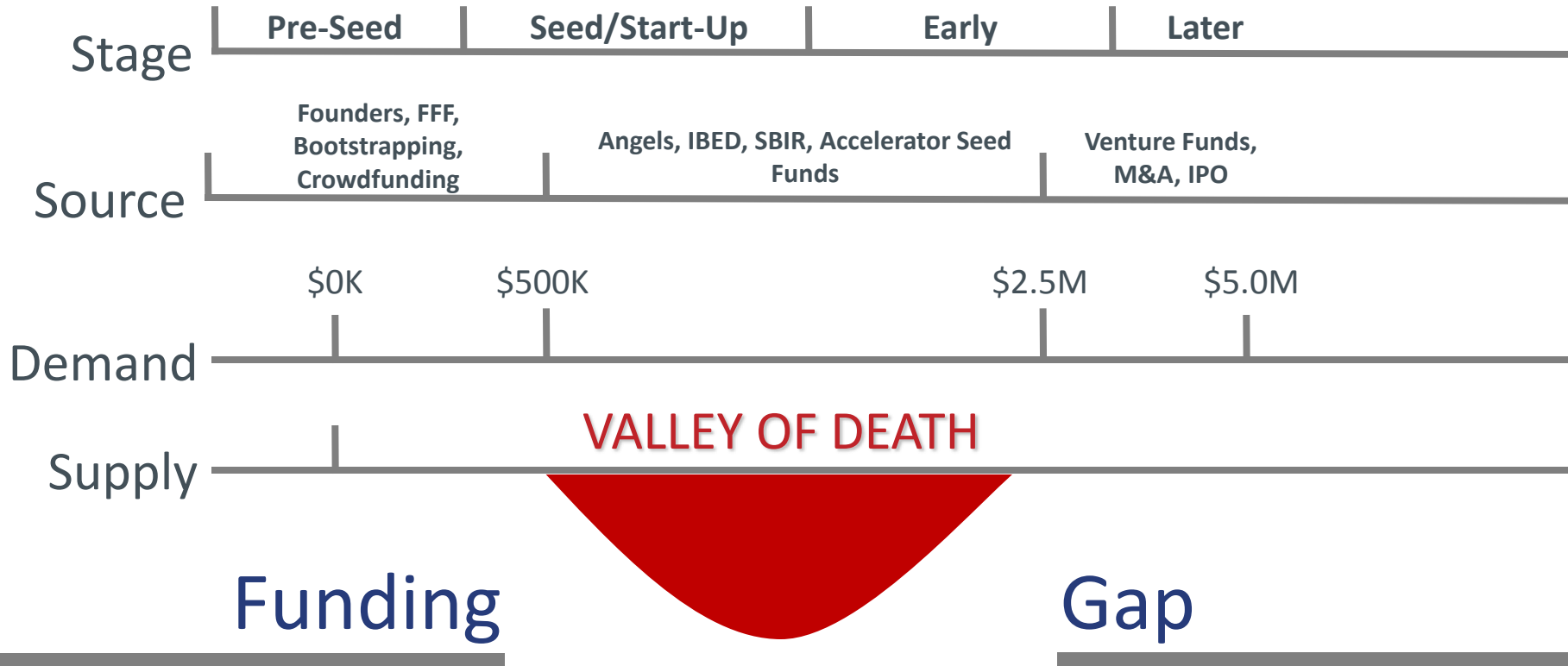
Medical Device

Develops medical devices related to image-guided, minimally-invasive markets



Potential Future EIR Expansion

Innovation Capital Valley of Death



Capital Sources by Investment Stage

4/12/2013

Pre-Proof of Concept \$25K - \$1.5M (over 3 years)	Translational Research / Proof of Concept \$15K - \$750K (over 3 years)	Proof of Commercial Relevance / Pre-Seed \$3K - \$500K	Seed / Start-Up \$50K - \$1.5M	Early Stage \$200K - \$2M	Later Stage \$2M+
<ul style="list-style-type: none"> ■ NIH R01 ■ NIH R03 ■ NIH R21 ■ Maryland Innovation Initiative (MII) (Managed by TEDCO) 	<ul style="list-style-type: none"> ■ NCATS Cures Acceleration Network (CAN) ■ SBIR/STTR Grant Phase I ■ Maryland Stem Cell Research Fund (MSCRF) ■ TEDCO Technology Validation Program ■ JHU-Coulter Translational Research Partnership 	<ul style="list-style-type: none"> ■ Maryland Industrial Partnerships (MIPS @ UMD) ■ TEDCO Technology Commercialization Fund ■ MII Phase 2 Grant ■ MII Phase 3 Grant ★ BHI SBIR/STTR Commercial Relevance Program (CRP) ★ BHI Commercial Relevance Fund (CRF) 	<ul style="list-style-type: none"> ■ Dingman Center Angels (UMD) ■ Propel Baltimore Fund ■ BioMaryland Center Biotechnology Development Awards - Translational Research ■ SBIR / STTR Phase II ★ BHI Central Maryland Angel Fund 	<ul style="list-style-type: none"> ■ Invest Maryland: Maryland Venture Fund ■ BioMaryland Center Biotech - nology Development Awards - Commercialization ■ Maryland Health Care Product Development Corporation ■ Abell Venture Fund ■ MMG Ventures LP ■ TDF 	<ul style="list-style-type: none"> ■ Maryland Venture Fund Authority ■ ABS Capital Partners ■ Greenspring Associates ■ Novak Biddle Venture Partners ■ Sterling Venture Partners ■ Harbert Venture Partners ■ JMI Equity ■ New Enterprise Associates (NEA)

Associations

- Association of University Resource Parks (AURP)
- Association of University Technology Managers (AUTM)
- Licensing Executive Society (LES)
- Angel Capital Association (ACA)
- Mid-Atlantic Venture Association (MAVA)
- National Venture Capital Association (NVCA)

Funding Type Key

- Academic
- Associations
- ★ BioHealth Innovation, Inc.
- Private Capital
- State of Maryland
- Federal
- Economic Development

Tax Credits

- Maryland Biotechnology Investor Tax Credit
- Montgomery County Biotechnology Investor Tax Credit

Innovation Capital Programs

SBIR/STTR Assistance Program

Help companies prepare high-quality SBIR/STTR grant proposals.

BHI Angel Fund

Bridge the gap between pre-seed investments and institutional venture capital.

BHI Commercial Relevance Investment Fund

Pre-seed and early-stage, equity-based innovation capital fund to help grow companies

New BHI Health IT Accelerator

An intensive **16-week program** for top-recruited companies and entrepreneurs

+

Provides a network of experienced mentors in:

Business

Marketing

Product Development



No HIT accelerators currently in Maryland

Public Private Partnerships

ACADEMIA

- RESEARCH/T2
- LIFELONG LEARNING
- ECONOMIC DEVELOPMENT

INDUSTRY

- PROFIT
- PROCESS
- PRODUCT

INSEPARABLE MISSIONS

GOVERNMENT

- SUSTAINABILITY
- INFRASTRUCTURE SUPPORT
- ECONOMIC POLICY

FOUNDATIONS

- ECONOMIC GROWTH
- COMMUNITY INVESTMENT
- REGIONAL COLLABORATION

Richard A. Bendis

President & CEO



Cell: (215) 594-3333

Office: (301) 637-6439

Email: rbendis@bendisig.com

“The BHI EIR program represents a significant paradigm shift in the way NIH hopes to advance commercially relevant science.”