2015 Post - SelectUSA Summit: Chinese Investment in Maryland Showcase

Rich Bendis
President & CEO
BioHealth Innovation, Inc.

Germantown
3/25/2015
The Region – Central Maryland

- Unrivaled Research Assets -
- Unfulfilled Commercial Promise -
Chinese-American Demographics in Montgomery County

43,182
Total
Chinese
Population

8
Chinese Companies
Headquartered
Companies
State of Maryland: Federal & University Resources

- Population: 5.9 million people
- 59 Federal Laboratories, Centers, & Institutes in Maryland
- Maryland Federal R&D investment exceeding $12 billion annually

JHU and USM represent another $3.5 billion in annual R&D
BioHealth Innovation is an Innovation Intermediary

An private-public partnership, serving as an innovation intermediary in Central Maryland with a mission to:

- Advance local technologies, assets and resources
- Accelerate innovation
- Globally connect sectors, industries, communities, and markets

- Regionally-oriented
- Private-public partnership, 501(c)(3) nonprofit
- Market-driven, private sector-led and funded
- Neither a government initiative, nor a membership organization
# BHI Board of Directors

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Daniel J. Abdun-Nabi</td>
<td>CEO, Emergent BioSolutions</td>
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<td>Judy Dunn</td>
<td>VP, Global Head of Clinical Dev. Roche</td>
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<td>Douglas Liu</td>
<td>Senior VP of GO Qiagen</td>
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<td>Michael J. Baader, Esq.</td>
<td>General Counsel Greenspring Associates</td>
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<td>Jens Eckstein</td>
<td>President SR One (GSK)</td>
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<td>Charles Morton</td>
<td>Partner Venable LLP</td>
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<td>Richard A. Bendis</td>
<td>President &amp; CEO BioHealth Innovation, Inc.</td>
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<td>David M. Gillece (Secretary)</td>
<td>Regional Managing Principal Cassidy Turley</td>
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<td>NEA</td>
<td>General Partner New Enterprise Associates</td>
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<td>Kenneth Carter</td>
<td>Chair Noble Life Sciences</td>
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<td>David O. Ivey</td>
<td>Vice President R&amp;D BD Diagnostics</td>
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<td>Adventist HealthCare</td>
<td>President Shady Grove Adventist Hospital</td>
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<td>Dave Lemus</td>
<td>CEO Sigma-Tau Pharmaceuticals</td>
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<td>Joel Marcus</td>
<td>CEO &amp; Founder Alexandria Real Estate</td>
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<td>EAGB</td>
<td>President &amp; CEO EAGB</td>
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<td>Chris Callaghan</td>
<td>Group VP, Healthcare Banking M&amp;T Bank</td>
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<td>Beth Meagher</td>
<td>Principal Deloitte Consulting LLP</td>
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<td>John A. Sackett</td>
<td>President Shady Grove Adventist Hospital</td>
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<td>Ronald J. Daniels</td>
<td>President Johns Hopkins University</td>
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<tr>
<td>William E. Kirwan</td>
<td>Chancellor University System of MD</td>
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<tr>
<td>Thomas Street</td>
<td>ACAO MoCo Government</td>
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BHI Program Structure

**SOURCES**
- NIH
- Universities
- Federal Labs
- Industry
- Entrepreneurs
- Soft Landing
- DreamIt

**OUTCOMES**
- Technologies Progressed
- Company Growth
- Risk Capital
- New Startups & Spinoffs
- Partnerships
- Mergers & Acquisitions
- Leveraged $s
- Regional Branding
- Jobs
- Economic Development

**BHI Assistance Programs**
- $SBIR Program
- Startup Package
- BioHealth Gap Fund
- Client Portfolio
- Non-client Support
- Intl. Soft Landing
- DreamIt Health
- MoCo Accelerator

**Strategic Programs**

**Financial Sponsors**
BHI Technology Focus

- Therapeutics
- Diagnostics
- Medical Devices
- Healthcare Services
- E-Health
- Mobile Health
- Electronic Medical Records
- Health Informatics
- BioHealth Cyber Security
# BHI Innovation Capital Map

## Capital Sources by Investment Stage

### Pre-Proof of Concept
- NIH R01
- NIH R03
- NIH R21
- SBIR/STTR Grant Phase 1
- NCATS Cures Acceleration Network (CAN)
- Maryland Stem Cell Research Fund (MSCRF) - Various
- TEDCO Technology Validation Program - Proof of Concept
- TEDCO Maryland Innovation Initiative - Phase 1
- JHU - Coulter Translational Research Partnership

### Translational Research/Proof of Concept
- $25,000 - $1,500,000 (per 5 yrs)
- TEDCO Maryland Innovation Initiative - Phase 2
- Maryland Stem Cell Research Fund (MSCRF) - Pre-Clinical
- TEDCO Technology Validation Program - Market Assessment
- SBIR/STTR Phase 2
- JHU - Coulter Translational Research Partnership

### Proof of Commercial Relevance/Pre-Seed
- $15,000 - $500,000
- Maryland Industrial Partnerships (MIPS @ UMD)
- TEDCO Maryland Innovation Initiative - Phase 2
- Maryland Stem Cell Research Fund (MSCRF) - Pre-Clinical
- TEDCO Technology Validation Program - Market Assessment
- SBIR/STTR Federal Funding Assistance Program

### Seed/Start-Up
- $50,000 - $1,500,000
- Dingman Center Angels (UMD)
- BioMaryland Biotechnology Dev. Award - Translational Research
- TEDCO Patent Assistance Program
- TEDCO Technology Commercialization Fund
- TEDCO Maryland Innovation Initiative - Phase 3
- SBIR/STTR Phase 2
- BioHealth Gap Fund

### Early Stage
- $200,000 - $2,500,000
- Propel Baltimore Fund
- TEDCO Veterans' Opportunity Fund
- Invest Maryland: Maryland Venture Fund
- BioMaryland Biotechnology Dev. Award - Commercialization
- TEDCO Maryland Innovation Initiative - Phase 3
- SBIR/STTR Phase 2
- BioHealth Gap Fund

### Later Stage
- $2,500,000+
- 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)

## Funding Type Key
- Academic
- State of Maryland
- Federal
- Economic Development
- Private Capital
- BioHealth Innovation, Inc.
- BioHealth Gap Fund

## Tax Credits
- Maryland Biotechnology Investor Tax Credit
- Montgomery County Biotechnology Investor Tax Credit
NIH Partnership Agreements

PIA between BHI and NIH’s Office of Technology Transfer (OTT) that supports the 27 NIH institutes’ $3 billion intramural research and the Food and Drug Administration to **promote and foster cooperative research and accelerate technology commercialization** among NIH/FDA, businesses, and universities.

NIH Consulting Entrepreneur Services Contract for 5 NIH Entrepreneurs-in-Residence
Who are the Entrepreneurs-in-Residence?

Ram Aiyar (NHLBI)
Ram assists the National Heart Lung and Blood Institute (NHLBI) in translating disruptive science into commercially viable technologies. He works with the relevant stakeholders within the NIH to develop commercial plans and/or develop licensing opportunities such that the NIH technologies can be translated into commercially viable entities that will solve unmet medical needs of patients.

Ken Malone (UM Ventures)
Ken has built his career on creating economic value from science. Whether it was developing new business lines for global corporations or spinning out new ventures from universities, he has engaged in the commercialization of hundreds of new products in advanced materials and life sciences.

Todd Chappell (EIR Consultant)
Todd assists the Office of Technology Transfer (OTT) in the evaluation of existing technologies, provide an entrepreneurial perspective on new licensing proposals from start-up companies, advise on opportunities for new ventures, assist with developmental strategies, and mentor scientists to help ensure their research becomes commercially valuable.

Albine Martin (JHU)
Dr. Albine Martin brings over 20 years of product commercialization and corporate development experience with 3 public companies located in Maryland and representing the biotechnology, diagnostics and life sciences sector. She has also served as a member of Active Angels, Inc where she syndicated and provides diligence for early stage investments.
BHI Scouting

BHI Partners

Roche

MedImmune

NIH/Federal Labs

BHI Portfolio

Entrepreneurs

Existing Biohealth Companies

International Soft Landing

Accelerator Companies

Industry Spinouts

Universities

BHI EIR TEAM
BHI Startup Package

Corporate Legal
- VENABLE LLP

Intellectual Property
- InHouse Patent Counsel

Clinical Services
- DP Clinical

Accounting
- Aaronson

Laboratory Space
- University of Maryland BioPark
- Biomedical Research Inst.

Incubation
- BioHealth Innovation

Banking
- M&T Bank
- Capital Bank

Payer Advisory Services
- ADVI
- CMTP

Scientific Data Management Services
- BioIT

Grant Consulting
- BBC
- ScienceSherpa
BHI interacts with companies and technologies at various stages in the biohealth industry from the results of basic research to companies currently selling products in the market. At these multiple levels of maturity, BHI evaluates whether the organization can help progress the scientist, inventor, entrepreneur, and/or business manager to support the growth of the entity.

We have a dedicated co-working space at our headquarters in Rockville where we support client companies with the goal of progressing the business model for the company.

The BHI Incubator is a member of MBIA, NBIA, and is a certified Maryland TEDCO Incubator.
A Health IT Accelerator is an intensive 16 week program that admits top-recruited companies and entrepreneurs, provides a curriculum and network of experienced mentors in business, marketing and product development in the Health IT arena to “accelerate” top companies.

Retain promising high growth HIT entrepreneurs in MD

Partners:

- BioHealth Innovation, Inc.
- Johns Hopkins University
- DreamIt Ventures
- Economic Alliance of Greater Baltimore
- Northrop Grumman
- Kaiser Permanente
- DBED
Relevant Health Accelerator

- Business accelerator for health startups in 2015
- 5 month formal co-working program with 7 month continuation
- Connect founders with a strong mentor network
- Help founders grow into a company ready for pilot testing and
- Cohorts of 8 - 10 companies and their founders recruited globally
- Up to $50,000 in stipends per company
- Product focus
- Software developer pool
- Long term support/transition into Montgomery County Incubator Network
- Close proximity to NIH, FDA, HHS, Health companies, international trade representatives and BioHealth Innovation
BioHealth Gap Fund

- Will provide direct seed and early-stage equity investments ranging from $500,000 to $2,000,000
- Focused on BioHealth companies that fall into the 4 categories: Therapeutics, Medical Devices, Diagnostics, and Health IT
- Goal: Achieve a $20,000,000 to $50,000,000 initial fund
- Expectation: 30% of companies generating 10x the original investment
- 2015 – Target first close
BHI International Soft Landing

China
Estonia
Germany
Greece
India

Korea
Netherlands
North America
South America
Spain
Montgomery County Partnership Opportunities

- Entrepreneur in Residence
- LP in BioHealth Gap Fund
- Partner in Relevant Health Accelerator
- International Soft Landing Partnership

Xie Xie!