

Montgomery County Incubator Update

Rockville and Germantown Innovation Centers

August 20, 2018





Challenges to Innovation Economy

Lack of spin-offs from federal and university R&D

Lack of entrepreneurial culture and C-suite executives

Lack of connectivity among innovation resources

Lack of early-stage funding for commercializing technologies





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Rich Bendis
Founder & CEO
BioHealth Innovation

40+ years experience:
Innovation America & Innovation Philadelphia,
Marion Laboratories,
Continental Healthcare Systems,
Kimberley Services,
Texas Instruments,
Polaroid, Quaker
Oats





Challenges to Innovation Economy

BioHealth Innovation Value Proposition

Lack of spin-offs from federal and university R&D

Lack of entrepreneurial culture and C-suite executives

Lack of connectivity among innovation resources

Lack of early-stage funding for commercializing technologies

Evaluate commercially relevant federal and university technology

Connect regional innovation assets

Connect regional innovation assets

Attract funding for technology commercialization





Commercialization

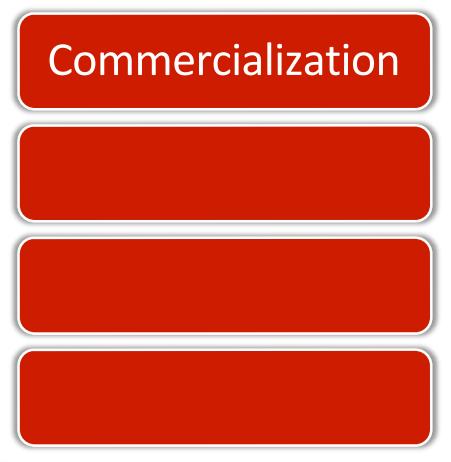
Connections

Workforce

Investment



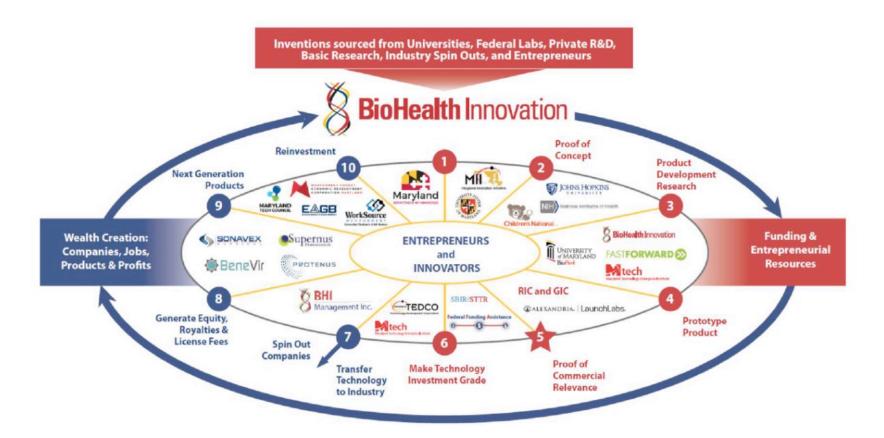








BioHealth Innovation Commercialization Model





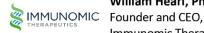


BHI Board of Directors



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(Vice-Chairman) CEO, Emergent BioSolutions, Inc.



William Hearl, Ph.D.

Immunomic Therapeutics, Inc.



David Mott

General Partner New Enterprise Associates



Richard A. Bendis

President & CEO BioHealth Innovation, Inc.



Ashish K. Kulkarni, Ph.D

EVP & CTO Avantor



Kurt Newman, M.D

President & CEO

Children's National Medical Center



Jarrod Borkat

Senior Director, External Partnerships and Collaborations Medlmmune



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CEO Medigene, Inc.



Lily Qi

Assistant Chief Administrative Officer Montgomery County Government



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Qiagen



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Head Externalized Drug Discovery Partnering, Roche



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Charles Morton (Secretary)

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Mike Gill (Ex-Officio)

Secretary of Business & Economic Development, Department of Commerce

Commercialization

EVALUATION AND COMMERCIALIZATION PLAN ASSISTANCE

- EIRs: NIH, UMD, JHU
- Industry: Startups; Other
- International Soft Landing





Commercialization

EVALUATION AND COMMERCIALIZATION PLAN ASSISTANCE

- EIRs: NIH, UMD, JHU
- Industry: Startups; Other; Innovation Centers
- International Soft Landing





BioHealth Innovation Entrepreneurs-in-Residence













Ken Malone, Ph.D.

Entrepreneur-in-Residence University System of Maryland

10+ years industry experience

Ethel Rubin, Ph.D.

Entrepreneur-in-Residence NIH

10+ years industry experience:

Entrepreneur-in-Residence Johns Hopkins University

30+ years industry experience:

Stephen Wolpe, Ph.D.

Entrepreneur-in-Residence NIH

25+ years industry experience & as an Independent biotechnology consultant

Luis Gutierrez, Ph.D.

Entrepreneur-in-Residence NIH

20+ years industry experience:

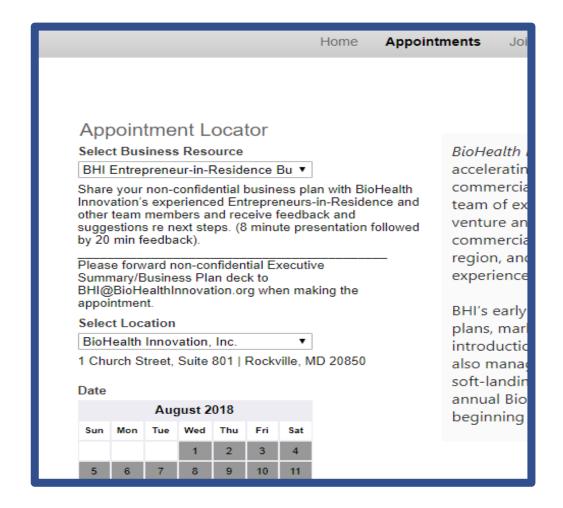
Anthony Saleh, Ph.D.

CEO, MiRecule and Mimetas US



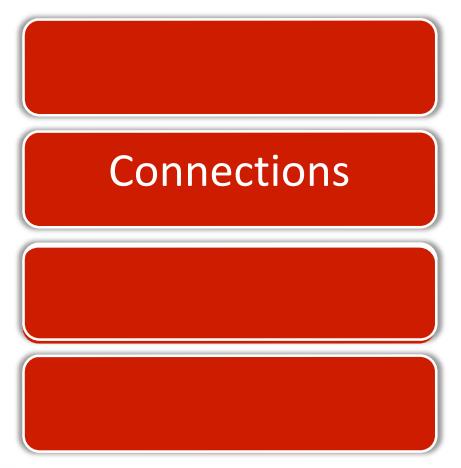


BioHealth Innovation Entrepreneurs-in-Residence



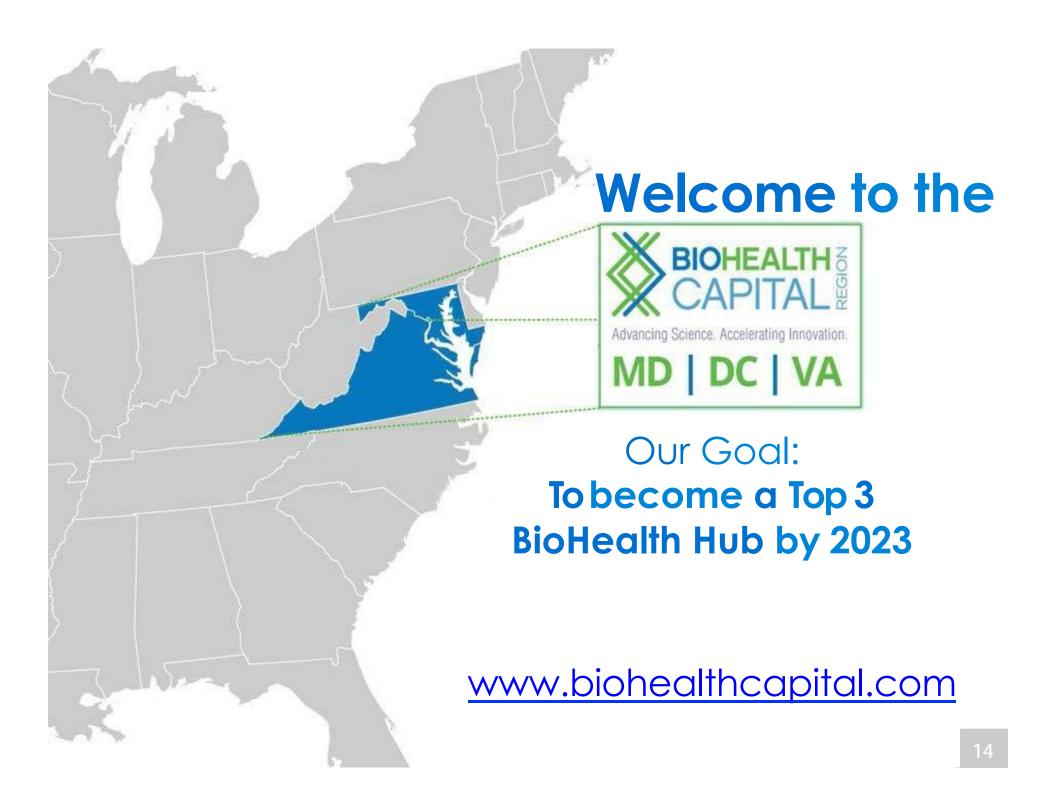












BioHealth Capital Region Forum

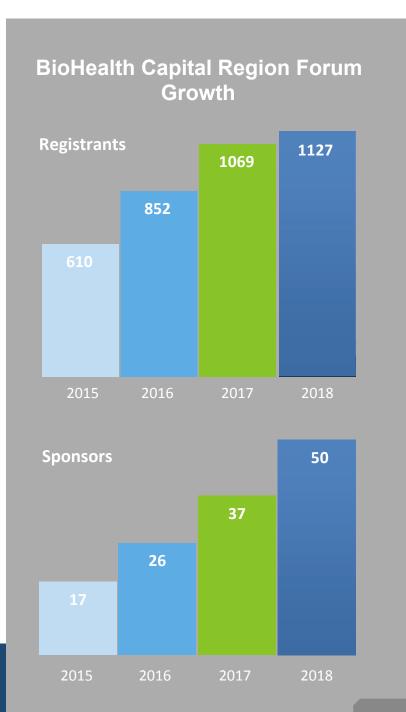


1,129 Registrants 50 Sponsors

GOAL: Top 3 by 2023

Showcasing accomplishments and opportunities for Montgomery County and the BioHealth Capital Region

April 8th and 9th, 2019
One MedImmune Way, Gaithersburg, MD 20878



BioHealth Connections and Promotion



BHI Website

The BHI website has news, an events calendar, research publications, regional organization feature stories and resources for the biohealth industry.



BHI News

BHI's weekly e-newsletter highlights the Central Maryland region's news articles, national biohealth trends and feature stories.

www.biohealthinnovation.org/news



BioHealth Capital Region

The BHCR website highlights the region's biohealth news, stories, trends and events.

www.biohealthcapital.com

www.biohealthinnovation.org



BHCR News

BHCR News is a monthly publication that highlights industry news throughout the region.



BioTalk

BioTalk — conversations with some of the most accomplished and exciting business, academic, and government leaders in the biohealth industry.



www.BioHealthInnovation.org







- Jobs Board
- Post Doc Industry Networking
- Compensation Survey
- Other (post doc; entrepreneur)

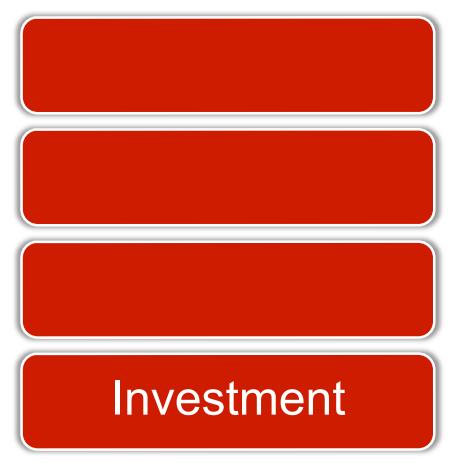
















BioHealth Investment Support

- Business Plan Feedback, Information and Resource Referral
- Non-Dilutive Funding Assistance
- Telling the Story
- Introduction to Investors
- State and Local Incentives





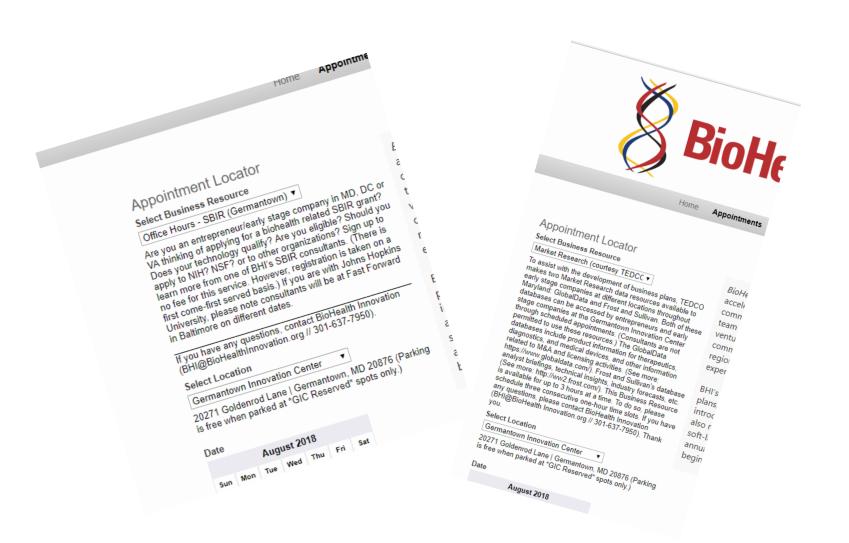
BHI Non-Dilutive Funding Assistance

- \$2.5 billion annual United States Government program coordinated by the Small Business Administration provides grants or contracts to small businesses to spur technological innovation
- Grants awarded in 3 phases between \$100,000 and \$1.5 million
- Non-dilutive



\$23.8M awarded | 52 wins of 116 non-dilutive funding proposals | 53% success rate (SBIR/STTR)

BHI Non-Dilutive Funding Assistance









Expansion into new 24,000 sq. ft. laboratory and offices

October 2017

APPLIED BIOMIMETIC

Opened up new US HQ and R&D facilities

February 2018



Series A

January 2017



Agreement to be acquired by

janssen T

for up to \$1,040,000,000

May 2018

April 2018



650,000 sq. ft. North American Vaccine R&D HQ

2016



Acquired



August 2017



Multiple Phase 3 candidates Sickle Cell, AML, etc.

2018



\$300,000,000

Upfrant for LAMP-vax Vaccine Platform for Allergies

2015

NexImmune

\$23,000,000

Series A; spin-out of

M JOHNS HOPKINS

January 2018

INTREXON®

Total revenues of \$231,000,000

21% increase over full year ended 12/31/16

March 2018



Expanding manufacturing capacity with new GMP suite

2018



Spins out 6 molecules into biotech with \$250,000,000

> VC investment. February 2018



Raised

\$36,000,000



acquired for \$1.2 billion by Mallinckrodt

SUCAMPO

December 2017



Expands to 118,000 sq. ft. with 160 new jobs

March 2018

THE FUTURE OF MEDICINE IS PRECISION

\$275,000,000 in new funding

December 2017



\$5,990,000 Series A

April 2018



\$50,000,000 Expansion US HQ

2015



aquires SteadyMed:

in transaction valued at \$216,000,000

March 2018



Raised \$250,000,000

Series A; spin-out of MedImmune AstraZeneca

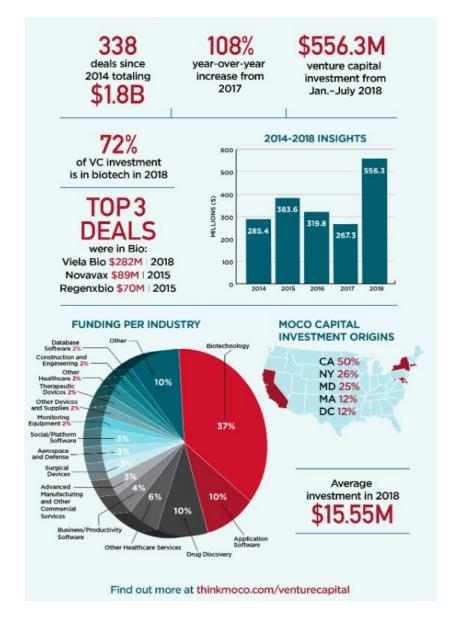
May 2018



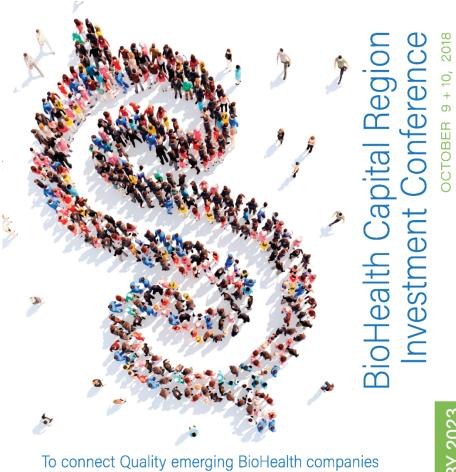
\$200,000,000 Acquisition by



April 2017







October 9 + 10, 2018



To connect Quality emerging BioHealth companies seeking capital to Investors looking for Quality deals.



For more information, contact: BHI@BioHealthInnovation.org













10P

State and Local Incentives









MCEDC Partnership











Innovation Center Partners









Innovation Center Partners











Innovation Center Partners























155 Gibbs Street, Rockville, MD 20850

Montgomery County Innovation Network Facility
Managed by BioHealth Innovation, Inc. (BHI)

45 Private Offices and Office Suites || 4,000 square feet of Coworking Space

- Class A office space located in the heart of the bustling Rockville Town Center—with great access to restaurants, nightlife, community events and fitness facilities.
- Flexible one-year lease agreements with 60-day notice terms.
- Shared conference rooms with state-of-the-art audio visual systems, pre-wired offices to accommodate
- both telephone and broadband internet service, and wireless internet access.
- Access to market research databases provided through partnership with TEDCO to bona fide entrepreneurs and faculty innovators.

25 Companies* | 93 Jobs

*includes Montgomery County GreenBank

Technology Health Tech BioHealth/Life Sciences Carradora Health * ReveraGer ATHFNA Atomic Mole Geisinger inky ()LexSource **TruGenomix** PIXSPAN ExPrimary® M3 Information Applied Victamax Wireless **T** Wireless LAN JuneBrain







20271 Goldenrod Lane, Germantown, MD 20876



Montgomery County Innovation Network Facility
Managed by BioHealth Innovation, Inc. (BHI)

51 Private Offices and Office Suites || 15 Wet labs || 32,000 square feet

- Turnkey office space with fully fitted wet labs, including RO water, emergency power, and fume hoods. located in the heart of the new Pinkney Innovation Complex at Montgomery College (PIC-MC).
- Flexible one-year lease agreements with 60-day notice terms.
- Shared conference rooms with state-of-the-art audio visual systems, pre-wired offices to accommodate both telephone and broadband internet service, and wireless internet access.
- On-site access to market research databases provided through partnership with TEDCO to bona fide entrepreneurs and faculty innovators.
- Access to interns, faculty and state-of-art equipment at BioScience Education Center, Montgomery College

23 Companies | 117 Jobs

Therapeutics	Diagnostics & Research Tools	Health Tech	Technology
ARCELLX Medytox Leads Biolabs	3iDx AcouSort	ClinicMax	More Information More Accuracy
seraxis BIONECURE Orgenesis	Adera Labs epigenomics	Four Gates LLC Business + Technology Services	MACHFU
Akan Biosciences Zalgen Labs	NuSep Experts in protein discovery	RaO SOLUTIONS Results and outcomes	*SERVE <mark>FED</mark> _{mc}

RIC and GIC PROGRAM METRICS*

48 Companies:

GIC: Resident–18; Virtual–5 RIC: Resident–16; Virtual–3; Coworking–6

210 Jobs

GIC: FTE-106; PT-11 RIC: FTE-93; PT-17

17 Graduates (September 2016–Present)

GIC: Afilon, Kitchology, Kinetic Analysis, Biologics Resources, DSP Logic, Leverege, Brisa Biotech, Machfu (8/31/18)

RIC: Cosmos ID, Uverj, AllCounted, Lazy Corp, Moxie Infomatics, WellAve, MEDfactura, ACUITYnano, Tyrogenex, 1787 Financial Planners

17 New Tenants (September 2016–Present)

GIC: Acousort, Akan, BiOneCure Therapeutics, Neuraly, NuSep, Rao Solutions, Theraly

RIC: Athena Infonomics, Carradora Health, fNIR Devices, Geisinger Health, Healable, Inky, JuneBrain, LRT Wireless, MedFactura, Parto

Current Availability

GIC: No wet lab space; 2 offices; coworking



RIC and GIC PROGRAM METRICS*

Facility Expansions (September 2016-Present)

GIC: Akan, Arcellx (lab), Leverege, MachFu, Neuraly (lab), Seraxis (lab),

Zalgen

RIC: Geisinger Health, Inky

Funding (September 2016-Present)

GIC: Arcellx (\$26M), Neuraly (\$36M), MachFu (\$2.7M), Seraxis (\$1.8M),

Theraly (\$926K)

RIC: Inky (\$5.6M), JuneBrain (\$225K), 3iDx (\$225)

Other

GIC: Adera, Akan, Rao, ServeFed, Zalgen

RIC: Athena, Carradora, ExeGi, Speak Agent, Pixspan, Reveragen





BHI SUPPORT for COMPANIES

- Company Update Meetings
- Office Hours and Resource Referrals
- > Facilities
- > EIR and Professional Staff Advisory and Support
- Grant Application and Funding Support
- Promotion and Connections/Networking
- Admission Screening // Graduation





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SAMPLE - OFFICE HOURS, LUNCH n LEARNS, REFERRALS

























Cooperative Alumni Angel Group (CAAG)







FACILITIES SUPPORT

HazMat Permit Training

 1:1 Office hours with Barbara Moore from County's Office of Emergency & Homeland Security

Lab Safety and SOP Training

 Working with Ed Sybert to initiate Annual Lab Safety training seminar and draft SOPs common lab procedures for GIC.

Data Room and Generator Load Issues

- Detailed report analyzing power distribution completed.
- Working with Montogmery College to manage power distribution to the generator from data room.

Clean Room Conversion

- \$135K fronted by Arcellx; Occupied in October 2017
- Increased revenue \$36,000 annually for the facility

Miscellaneous

Tenant Coordinators, LaunchLabs, space assignment, engineering





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CATALYTIC GRANT SUPPORT

3iDx (GIC)	Fabricate components, optimize design, and produce prototypes of separator cartridge.
Adera Labs (GIC)	Optimize proprietary algorithm using data from ongoing clinical trial.
JuneBrain (RIC)	Consulting advice re FDA approval pathway and reimbursement strategy and design support for prototype.
LexSource (RIC)	Partial payment of a one-time license of software required to rapidly build new software product in high demand by potential clients.
Parto (RIC)	Prototype development and robotics of Parto's high speed image acquisition device.
Seraxis (GIC)	Develop a cryopreservation protocol that will enable standard lot testing as required by FDA. This test better addresses regulatory expectations for Seraxis' cell therapy protocol.





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ADMISSIONS PROCESS

Process:

- > Phone call and introductions
- > Tour of facility(ies)
- ➤ Discussion with BHI Team regarding technical and business feasibility of business plans and management who will execute the plan
- > Formal submission of application and business plan.
- ➤ If admitted, working with Scheer and Insurance Provider to ensure COI and License Agreements reflect discussion in terms of monthly rent, amenities fees, start date, security deposits, etc.





GRADUATION

Idea

- > Requires business model refinement and customer discovery
- > Should start in the Virtual Company program and move into Incubation phase **Pilot**
- Requires reference able users, pilots, and would-be customer feedback on near commercial technology;
- ➤ For Biotech well documented regulatory and commercial pathway required; for Technology Customer discovery process completed

Growth

- ➤ Scaling Stage Requires sales, distribution, and partnerships. Growth and job creation potential to strategic commercial real estate hand-offs
- > For Biotech Pre-IND Stage moving toward the clinical stage

Soft Landing

Strategic Stage – Requires support of incubation facility to recruit strategic company to the region; Examples of large companies establishing strategic division in Region or foreign companies requiring strategic foothold in County.





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> Strategic Stage – Requires support of incubation facility to recruit strategic company to the region; Examples of large companies establishing strategic division in Region or foreign companies requiring strategic foothold in County.





ADMISSIONS PROCESS

Eligibility - Companies should be:

- ➤ Technology-based, product driven, market relevant, and growth oriented. (Lifestyle businesses, services companies, and franchises are excluded.)
- ➤ Able to demonstrate reasonable plans for growth in the business plan submitted with their application.
- ➤ Understand that their ability to reside in the innovation center is not indefinite, that they are expected to grow their business to a point that they can easily transfer to commercial real estate space.
- > Able to demonstrate an ability to pay rent in accord with the license.
- ➤ Show an interest in fellow innovation center tenants, entrepreneurial and innovation education activities.





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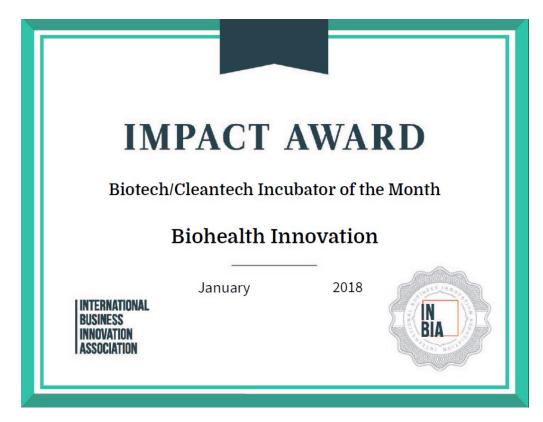
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THANK YOU!!



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