AGENDA FOR OPEN SESSION

1. **Renewing Committee Charge** – Change of Committee Name

2. **Research and Economic Development Review** – Vice Chancellor of Research and Economic Development Michele Masucci
   - New awards of distinction
   - Outreach activities
   - Huron Update on USM and System Research Administration Needs

3. **The AI Economy Emergence in the U.S. and Maryland** – Daraius Irani, Towson University

4. **Momentum Fund Update** – Venture Fellows Update
   - Focus on Irazu Oncology – Marco Chacón

5. **Launch Fund and Venture Development Update** – Executive Director of Economic Development Lindsay Ryan

Q and A
Charge:

The Committee on Research and Economic Development shall provide strategic leadership for the USM's research, economic development, technology commercialization, innovation, and entrepreneurial initiatives, programs, and policies.

Role and Responsibilities:

The Committee on Research and Economic Development shall consider and report or recommend to the Board of Regents on matters concerning economic development and technology commercialization, innovation and entrepreneurial initiatives, and research, including translational research and technology transfer.

Members of the Committee on Research and Economic Development are appointed annually by the Chairperson of the Board. The Committee shall meet as needed, but no fewer than four times during the fiscal year.

Created in July 2011 in recognition of the increasing importance of translational research, entrepreneurship and innovation, and the supply of skilled workers in STEM fields for the State of Maryland, the Committee, working with the Vice Chancellor for Research and Economic Development, may expect to receive information for review in order to consider, and/or act on any of the following matters:

A. Aligning resources with market demand

B. Leveraging USM resources through collaborations

C. Enhancing partnerships with industry, state, and federal entities

D. Strengthening the USM Research and Innovation ecosystem, including engaging with research funding and commercialization partners, enhancing research administration and compliance infrastructure, and fostering excellence in scholarship, research, creative, and innovation

E. Strengthening the USM entrepreneurial ecosystem, including engaging the investment community and enhance access to capital for USM affiliated startups and innovators
Office of the Vice Chancellor for Research and Economic Development

Board of Regents Committee on Economic Development and Technology
Commercialization

Michele Masucci, Ph.D.
Vice Chancellor for Research and Economic Development

January 25, 2024
Agenda

1. Renewing Committee Charge – Change of Committee Name
2. Research and Economic Development Review
   - New awards of distinction
   - Outreach activities
   - Huron Update on USM and System Research Administration Needs
3. The AI Economy Emergence in the U.S. and Maryland
   - Darius Irani, Towson University
4. Momentum Fund Update – Venture Fellows Update
   - Focus on Irazu Oncology – Marco Chacón
5. Launch Fund and Venture Development Update

Q and A
1. Renewal of Committee Charge

Committee on Economic Development and Technology
Commercialization Charge update:

- Change of name from “Economic Development and Technology Commercialization” to Research and Economic Development
- The name change reflects the development of new Office of Vice Chancellor for Research and Economic Development, with an added focus of research
- The name change reflects the charge that includes a focus to include research and related initiatives, programs, and policies
New Awards of Distinction

- **USM** - $4 M U.S Department of Education to foster Student Success
- **UMD School of Medicine** – $30 M to study infectious disease among IV drug users
- **UMES** - $26 M in state and federal funds to begin construction on new Agricultural Research and Education Center
- **UMD** - $10 M Tier 1 Center for Multi-Modal Mobility in Urban, Rural and Tribal Areas funded by USDOT
Outreach and technical resources

- NSF Granted Award to UMBC to support Grants Made Conference in April 2024
- National Academies - On Leading a Lab: Strengthening Scientific Leadership in Responsible Research, A Workshop held in December 2023
- UMBC and UMB $4 M Reach Award from NIH for biomedical and life science accelerator program
Huron Update

Jenna Lee
Education & Research Consulting Director
Huron

1-25-2024
3. THE AI ECONOMY EMERGENCE OUTLOOK

Darius Irani, Ph.D.
Vice President for Strategic Partnerships and Applied Research
Towson University
4. MOMENTUM FUND

Spotlight on Irazu Oncology
Marco Chacón, Ph.D.
Founder and President
5. LAUNCH FUND

Lindsay Ryan
Executive Director for Economic Development
University System of Maryland
Q and A
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University System of Maryland

13/80
University System of Maryland

Board of Regents

Committee on Economic Development & Technology Commercialization

January 25th, 2024
Contents

1. Project Workstreams
2. Future State Vision
3. Recommendations
Introduction

In Fall 2023, University System of Maryland (USM) engaged Huron to evaluate the research administrative needs at the system level and across the system institutions.

OVERVIEW | Huron was asked to review the research administrative infrastructure across the UM institutions to ensure an efficient and compliant research infrastructure is in place across the system. Key goals included identifying opportunities and providing recommendations on how to build the necessary infrastructure to support externally sponsored research funding.
Project Workstreams

USM has partnered with Huron Consulting Group to provide assessment and strategic planning support within the research administration infrastructure at USM.

Two Workstreams:

**Workstream 1: Internal**
Our first step is to look within the infrastructure of USM's research operations to evaluate what is needed to sustain and grow research at the system level.

**Workstream 2: External**
Our second step is to look at the system more broadly and recommend ways the system office can support smaller institutions that do not have the infrastructure needed to support a larger research portfolio.
Workstream 1: Internal

As part of the review of USM’s internal research administration infrastructure, Huron spoke with key stakeholders and crafted recommendations to address the key concerns expressed by participants.

1. Conducted a **project kick-off** meeting with Research Administration leadership to confirm project objectives.

2. Conducted targeted **interview sessions** with key stakeholders within USM’s Research and Economic Development office as well as Academic and Student Affairs and Administration and Finance.

**Themes Expressed by Interview Participants:**

- **People:** It would be nice to have *system level support for administrative tasks* related to proposal development (especially budget help) and award management.

- **Processes:** The current infrastructure within USM is not conducive to growing/expanding extramural research funding. *More consistent processes need to be in place* to foster growth and ensure compliance.

- **Policy:** It is hard to know where to go to do standard things for our awards. *For example, what is the easiest, most compliant way to pay our collaborators at other institutions?*

Based on these core themes, Huron has made initial high-level recommendations related to USM’s internal research administration operations.
Future State Vision

1 Build a Foundation: Focus on staffing USM’s Research and Economic Development infrastructure to support USM researchers in core pre- and post-award activities.

2 Plan for Growth: Create a position to carry out the Vice Chancellor’s strategic vision for how the system office can and should support research-related functions across the system institutions.

3 Expand: Grow USM’s core research admin team to support/or to become the research infrastructure at smaller institutions.
Build A Foundation

<table>
<thead>
<tr>
<th>Role</th>
<th>Primary Responsibilities</th>
</tr>
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<tbody>
<tr>
<td><strong>Director of Research Strategic Initiatives</strong></td>
<td>- Identify and assess a path forward for the Vice Chancellor’s strategic vision.</td>
</tr>
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<td></td>
<td>- Develop and refine the organization’s research strategic plan, in collaboration with senior leadership.</td>
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<td>- Create and prioritize foundational needs of new grants team (e.g., drive policy creation, appropriate grants tracking, roles &amp; responsibilities matrix, etc.)</td>
</tr>
<tr>
<td><strong>Grants Admin (Pre)</strong></td>
<td>- Assist in the development, preparation, and submission of all proposals at the system level, including budget development.</td>
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<td></td>
<td>- Advise on adjustments and revisions necessary to meet sponsor and university guidelines (focused on compliance).</td>
</tr>
<tr>
<td><strong>Grants Admin (Post &amp; Reporting)</strong></td>
<td>- Manage budget, reporting and compliance timelines through the lifecycle of the grant or contract.</td>
</tr>
<tr>
<td></td>
<td>- Review all prior approval requests (NCEs, Key Personnel change, etc.)</td>
</tr>
</tbody>
</table>

Indicates New Positions

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Build a Foundation

The following recruitment options should be considered as USM prepares to move forward.

1. **Stand-alone**
   - Key positions are staffed by USM internal employees (reorganized).

2. **External Hiring**
   - Key positions are staffed with newly hired employees.

3. **Outsource**
   - USM outsources Pre- and Post-award positions until volume can sustain full time support.
Plan for Growth

1. **Establish clear roles and responsibilities** for the new research administration team.
2. **Establish standard operating procedures** for the USM research portfolio for common research administration processes. Financial processes should be prioritized (e.g., F&A disbursement, payment of other system institutional collaborators on grant funds).
3. **Update website** to include helpful resources for USM researchers, including a central repository for commonly needed forms.
4. **Establish research administration “rapid response team”** for researchers and administrators needing help in navigating the internal USM infrastructure or the system infrastructure as a whole.
5. **Standardize reporting and audit standards** on behalf of the system, including standardizing completion of the HERD survey.
   a) Reporting – establish need for high priority reports, standardize methodology for completion, convene completion clinics
   b) Audit – establish need for high priority areas (FFATA reporting, procurement, effort reporting) based on past audit findings, establish standards at the system level for best practices, work with campuses to implement or complete centrally for smaller campuses
“Remember, all I’m offering is the truth. Nothing more.”
GDP Has Increased for Five Straight Quarters

Billions of Chained 2017 Dollars

Source: U.S. Bureau of Economic Analysis

2023Q3: $22.5 trillion, 4.9 percent
COVID-19 Stimulus Was Nearly 3x the Size of the Great Recession Stimulus as a Percentage of Annual GDP

Source: U.S. Bureau of Economic Analysis
The War in Ukraine Continues to Affect the World Economy

- Production and shipping of major Ukrainian exports are disrupted, and economic sanctions against Russian remain in place.

- World economic growth was projected at 5.0% in 2022 prior to the invasion, fell to 3.1% by the end of the year.

- Growth was 2.2% worldwide in 2023, but only 0.3% across Europe.

Source: International Monetary Fund; The Washington Post; RAND Corporation
“I know I've made some very poor decisions recently, but I can give you my complete assurance that my work will be back to normal.”
The Fed May Finally Be Done with Raising Interest Rates

Sources: FRED, Board of Governors of the Federal Reserve System
Year-Over-Year Inflation Has Come Down, but Not Completely

Source: Bureau of Labor Statistics
Global Supply Chain Pressures Have Dropped Sharply in 2023

Source: Federal Reserve Bank of New York
Gasoline Prices Declined After Peaking in 2022

Source: Federal Reserve Economic Data
Consumer Sentiment is Low but Rebounded in December

Source: University of Michigan

December 2023: 69.7
“Hope. It is the quintessential human delusion, simultaneously the source of your greatest strength, and your greatest weakness.”
The U.S. is Currently Short up to 6 Million Homes

- According to various estimates, the United States is short anywhere between 2 and 6 million homes.

- This not only drives up home prices and rental rates – it can exacerbate inequality and contribute to climate change through increased use of cars.
Office Vacancy Rates Continue to Increase

Q4 2023: 19.6
Highest since 1979

Source: WSJ, Moody’s Analytics
Offices Across North American Could be Repurposed into Residential Housing

Source: Avison Young

- New York City: 1,800
- Los Angeles: 1,200
- Chicago: 1,000
- Toronto: 800
- San Francisco: 600
- Montreal: 500
- Vancouver: 400
- Calgary: 400
- Houston: 300
- Washington, D.C.: 250
- Nashville: 250
- Northern Virginia: 200
- Atlanta: 200
- Austin: 100

Source: Avison Young
“With the information I can access, I can run things 900 to 1,200 times better than any human.”
Job Openings Still Outnumber Persons Looking for Work in the U.S.

Source: U.S. Bureau of Labor Statistics

Unemployment Level vs. Job Openings from 2015 to 2023.
The Same is True for Jobs in Maryland

Source: U.S. Bureau of Labor Statistics
Labor Force Participation Overall is Lower Than Pre-Pandemic

Source: U.S. Bureau of Labor Statistics
Women Have Increased and Men Have Decreased Labor Force Participation Since 1980

Source: U.S. Bureau of Labor Statistics
“The future has not been written. There is no fate but what we make for ourselves.”
The Potential Effects of A.I. on GDP

• A report from McKinsey Global Institute estimates that generative A.I. could add $4.4 trillion to the global economy annually.

• Up to 60 to 70 percent of workers’ time could be saved through automation, improving productivity.
A.I. and Automation Will Displace Jobs but New Jobs Will Take Their Place

- The World Economic Forum’s “Future of Jobs Report 2023” estimated that 83 million jobs are projected to be lost over the next 5 years.

- Over the same period, 69 million jobs are expected to be created.

Source: World Economic Forum
Venture Capital Deals Decreased in 2022

Number of Venture Capital Investment Deals in the United States

Source: Pitchbook and Statista
Billion-Dollar Disaster Events are Increasing in Frequency in the U.S.

Count of Billion-dollar Disaster Events

Cost in Billions

Source: National Centers for Environmental Information
Coastal Flooding in our Region Has Become More Frequent

Source: Environmental Protection Agency
What the Future Holds

Headwinds
• Continuing War in Ukraine
• Terrorist Attack/Expanding regional conflict Mideast
• Slowing of World Economy
• Rising Interest Rates
• Inflation
• Volatility in Energy Markets
• Banking system
• Divided Congress
• Supply Chain Challenges
• Climate Change impacts-more frequent, more severe

Tailwinds
• Strong Labor Markets
• Softening Home Prices
Maryland GDP Grew Consistently in the First Three Quarters of 2023

Source: U.S. Bureau of Economic Analysis

2023Q3: $422 billion, 2.7 percent
Healthcare, Computer, and Management Occupations Dominate Openings in Maryland

<table>
<thead>
<tr>
<th>Occupation Category</th>
<th>Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare Practitioners and Technical Occupations</td>
<td>31,199</td>
</tr>
<tr>
<td>Computer and Mathematical Occupations</td>
<td>14,913</td>
</tr>
<tr>
<td>Management Occupations</td>
<td>16,026</td>
</tr>
<tr>
<td>Architecture and Engineering</td>
<td>8,437</td>
</tr>
<tr>
<td>Sales and Related</td>
<td>7,625</td>
</tr>
<tr>
<td>Office and Administrative Support</td>
<td>7,411</td>
</tr>
<tr>
<td>Healthcare Support Occupations</td>
<td>5,960</td>
</tr>
<tr>
<td>Business and Financial Operations</td>
<td>5,337</td>
</tr>
<tr>
<td>Food Preparation and Serving</td>
<td>4,934</td>
</tr>
<tr>
<td>Transportation and Material Moving</td>
<td>4,623</td>
</tr>
<tr>
<td>Installation, Maintenance, and Repair</td>
<td>3,952</td>
</tr>
<tr>
<td>Education, Training, and Library</td>
<td>3,857</td>
</tr>
<tr>
<td>Arts, Design, Entertainment, Sports, and Media</td>
<td>3,300</td>
</tr>
<tr>
<td>Production Occupations</td>
<td>2,682</td>
</tr>
<tr>
<td>Community and Social Services</td>
<td>2,590</td>
</tr>
<tr>
<td>Life, Physical, and Social Science</td>
<td>2,412</td>
</tr>
<tr>
<td>Protective Service</td>
<td>2,204</td>
</tr>
<tr>
<td>Building &amp; Grounds Cleaning &amp; Maintenance</td>
<td>1,635</td>
</tr>
<tr>
<td>Personal Care and Service</td>
<td>1,473</td>
</tr>
<tr>
<td>Construction and Extraction</td>
<td>1,250</td>
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<tr>
<td>Legal Occupations</td>
<td>722</td>
</tr>
<tr>
<td>Military</td>
<td>153</td>
</tr>
<tr>
<td>Farming, Fishing, and Forestry</td>
<td>106</td>
</tr>
</tbody>
</table>

Source: Maryland Workforce Exchange
Government and Healthcare Jobs Have the Largest Current Maryland Employment

- Government: 531.1
- Health Care and Social Assistance: 374.3
- Professional, Scientific, and Technical Services: 278.1
- Retail Trade: 263.4
- Accommodation and Food Services: 213.5
- Administrative and Support and Waste Management and Remediation Services: 169.2
- Mining, Logging, and Construction: 168.0
- Financial Activities: 134.3
- Transportation and Utilities: 120.6
- Other Services: 109.8
- Educational Services: 90.9
- Wholesale Trade: 89.1
- Finance and Insurance: 89.0
- Durable Goods: 58.1
- Non-Durable Goods: 49.5
- Real Estate and Rental and Leasing: 45.3
- Arts, Entertainment, and Recreation: 44.0
- Management of Companies and Enterprises: 29.2

Source: Maryland Workforce Exchange
Maryland’s Economy

• Strong possibility of slowing down as world and national economies impact MD’s economy
• Uncertainty around Federal budget
• MD Structural Deficit
• Population decline
• Affordability
• Banking
• Labor shortages continue to plague hospitality and eating establishments in addition to IT, health and transportation
Developing The Next Generation Of Cancer Vaccines
Irazu Bio
Focus of identifying, de-risking and developing the best IP-protected academic research to create innovative life science companies

Irazu Oncology
Focus on developing immunotherapies and vaccines for cancer

OMV cancer vaccine technology licensed from UMB

Funding: Momentum, TEDCO, Abell, Wexford and angel investors

Key advisors and collaborators from UMB

UMB Biopark MD/Baltimore work force

Irazu Bio and Irazu Oncology conduct sponsored research at UMB
Irazu’s proprietary vaccine platform involves commonly-used lab methods and Irazu has extensive experience in scale-up and GMP manufacturing.
Highlights of the MVP Technology

Irazu’s MVP technology is being developed with the goal of simplifying cancer vaccine development and achieving greater efficacy and clinical success.

- Turnkey approach to delivering tumor-associated antigens and/or neoantigens
- Enhances antigen immunogenicity
- Broadly applied to solid tumors
- Amenable to combination with I/O drugs
- Low Cost of production and convenient storage
- Clinically validated approach in vaccine development (GSK BEXSERO™ MeNCB)

Versatility – Scalability – Value

Our Partners:

- UNIVERSITY of MARYLAND SCHOOL OF MEDICINE CENTER FOR VACCINE DEVELOPMENT AND GLOBAL HEALTH
- UNIVERSITY of MARYLAND MARLENE AND STEWART GREENBAUM COMPREHENSIVE CANCER CENTER
Irazu Oncology – Experienced Board of Directors and Leadership Team - Accomplished Advisors

Board of Directors

Marco Chacon, PhD
Founder, President, Chairman
Former CEO and Chairman of Paragon Biosciences, Inc

Rick Kohr
Chief Executive Officer of Evergreen Advisors, LLC.

Jim Berens
Chairman and President of Wexford Science and Technology

Leadership

Jeff Strovel, PhD
Chief Executive Officer
Former CEO of VERALOX Therapeutics; former CEO and President of ConverGene

Marcio Chedid, PhD
Chief Scientific Officer
Former Executive Director of Biotechnology Discovery at Eli Lilly

Partners /Advisory Board

• James Galen, PhD - Professor UMB
• Robert Ernst, PhD - Professor and Chair Department of Microbial Pathogenesis in the UMBSOD
• Caroline Popper, MD, MPH - CEO of Infinity Bio
• Aaron Rapoport, MD - Gary Jobson Professor of Clinical Oncology, Director of the Blood and Marrow Transplant Program at UMMC
• Nilo Azad, MD - Director of Developmental Therapeutics Clinical Trials Program at Johns Hopkins University Sidney Kimmel Cancer Center
• Roman Macaya, PhD, MBA - Menschel Senior Leadership Fellow at Harvard School of Public Health
• Paul Boyce, MS – Sr. Director National Services and Support at Illumina
USM LAUNCH FUND UPDATE
USM LAUNCH FUND UPDATE

• Next round of microgrants for students/faculty will be awarded in February

• Upcoming round of funding for ventures; information coming via Launch Fund website: https://www.usmd.edu/launch/

• Early reporting impacts of ~$250k funding to 16 ventures:
  
  • 5 awardees reporting a total of > $400k in additional funding
  
  • Enabling critical launch milestones, leveraging the USM network and the power of a USM funding process:

  “This funding was our lifeline, it enabled essential engineering work and design. Also, it's a vote of confidence in our vision and a springboard for transformative progress.”

  “Not only did it help us finalize a critical portion of our strategy, it also freed up capital that has gone to our newest hire!”

  “The Launch Fund single handedly provided ... the opportunity to actually pursue our complex and ambitious business model. Their help and network has provided facilitation for a great launch, and provided access we could not have expected otherwise.”
Trillest Dollhouse makes natural hair education available to HBCU students by providing natural haircare products and services.

**Founding Team:** Led by Lauren Kelly, an undergraduate student at Bowie State University

**Location:** Baltimore City

**Use of Funds:** Securing the business’ first vehicle and equipment, along with marketing funds for launch.

**Results:** They had a successful grand opening on December 16!

**Next Steps:** continue to grow the business

Photo Credit: @cwphotophactory
Ticker Markets is building the next generation of private investments. It allows investors to connect with a community of secondary investors. Investors can create liquidity, and secondary investors have access to opportunities that they otherwise may have missed.

**Founding Team:** Led by Max Harris and Max Kaufmann, who are undergraduate students at UMCP.

**Location:** Baltimore City

**Use of Funds:** Setting up legal back end to fully launch, onboard funds and investors, and facilitate transactions.

**Results:** They just launched at https://www.ticker.fund/

**Next Steps:** Onboard funds and continue creating marketing partnerships.
USM VENTURE
DEVELOPMENT AND
IMPACTS
USM GENERATES ECONOMIC GROWTH

Top Employer
Attracting & Developing Students, Faculty
Regional Workforce Development

Talent

Innovation

Place & Community

Research & Creative Works
Innovations & Intellectual Property
Venture Formation & Venture Development

Purchasing Power
Community Development
Physical Infrastructure & Equipment

Adapted from the Association of Public and Land-grant Universities, accessed on ___/___/___
USM GENERATES ECONOMIC GROWTH

Via Venture Formation and Development

Top Employer
Attracting & Developing Students, Faculty
Regional Workforce Development

Internships & Clinics
USM Founders

Research & Creative Works
Innovations & Intellectual Property
Venture Formation & Venture Development

Purchasing Power
Community Development
Physical Infrastructure & Equipment
Incubators & Parks
Contracts

Adapted from the Association of Public and Land-grant Universities, accessed on ___/___/___
The **USM Venture Development Report** tracks the ventures that USM institutions significantly support and how.

**Ventures**
- For-profit and non-profit startups and some small businesses
- Generally based in Maryland
- “Spin-outs” based on university intellectual property and/or with USM founders AND “Spin-ins” utilizing university resources without prior ties

**Significantly Supported** = More than occasional advising, etc.

**How Supported** = Intellectual Property, Programs, Places, Capital
Key Takeaways

• **Growth!** Sources of support for ventures and the scale at which they operate are growing

• Support for **student ventures** (not classroom ventures) is growing

• Support from USM serves the broader Maryland community, with about 40% of ventures supported “spinning in”, without a USM Founder or Intellectual Property

• Support for **University Intellectual Property-Based Ventures** is holding steady and receives a great proportion of USM capital
VENTURES SUPPORTED OVER TIME

All Ventures

Ventures Based On University Intellectual Property
USM SUPPORT FOR VENTURES: *PROGRAMS* JANUARY - JULY 2023

**87 Ventures**

- **59%** USM Founders
- **41%** USM Student Founders
- **5%** USM Intellectual Property

**Programs Reporting**

- BSU Entrepreneurship Innovation Center, Summer Launch Program
- SU Student Entrepreneurship Competitions, Shore Hatchery
- TU StarTUp Accelerator
- UB RISE Competition
- UMD I-Corps, Blockchain Accelerator, Fearless Founders, Pitch Dingman, Dingman Mentoring, Mokhtarzada Hatchery, Do Good Institute, Maryland Energy Innovation Accelerator (MEIA), Quantum Startup Foundry
USM SUPPORT FOR VENTURES: *SPACES* JANUARY - JULY 2023

<table>
<thead>
<tr>
<th>Ventures</th>
<th>USM Founders</th>
<th>USM Student Founders</th>
<th>USM Intellectual Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>56%</td>
<td>38%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Spaces Reporting
- FSU Research District
- TU StarTUp Accelerator and Fund
- UMB BioPark
- bwtech@UMBC
- UMD Discovery District, Mokhtarzada Hatchery, Mtech Ventures Incubator, Startup Shell, Do Good Accelerator
USM SUPPORT FOR VENTURES:

*CAPITAL* JANUARY - JULY 2023

92 Ventures

59% USM Founders

42% USM Student Founders

10% USM Intellectual Property

$5.6M USM Capital

Capital Sources Reporting

>~ $1M

• USM Maryland Momentum Fund
• Maryland Industrial Partnerships (MIPS) Program
• UMD Discovery Fund

>~$100k

• UMD Chesapeake Bay Seed Capital Fund, Pitch Dingman
• SU Shore Hatchery
• TU StarTUp Accelerator and Fund

<~$50k

• BSU Bulldog Pitch Competition, Summer Launch Program
• SU Student Entrepreneurship Competitions
• UMB Baltimore Fund
• UMD Terp Startup, Dingman E-Fund, Do Good Institute & Accelerator, Mokhtarzada Hatchery
• UB RISE Competition
Convening of USM Funds and major resource center leaders:

1. Increase USM cohesion of USM ecosystem to benefit programs, applicants, recipients
2. Help articulate USM resources hopefully -- $10M+ annual funds across 13+ sources!
3. Strategize to collectively address gaps, enhance resources, and look ahead

UPDATES:

• First convening held
• In-person strategy session in March
ARTICULATING VENTURE IMPACTS

OVCREED is fostering greater articulation of the impacts of venture support

**Example: Follow-On Federal SBIR Funding for USM Ventures**

Since 2012, at least 75 ventures supported by USM have gone on to receive a total of over **$100M in federal small business R&D funding (SBIR/STTR)**

- About half are based on USM intellectual property ("spin-outs")
- Of the "spin-ins", ventures are primarily supported via research parks, the I-Corps program, and/or MIPS funding

From public data, we know that about 1/3 of Maryland companies partnering with USM institutions to jointly receive federal STTR funding have received startup support from USM.

**Example: University of Maryland, College Park IP-Based Startup Impacts**
APPENDIX: USM VENTURE DEVELOPMENT
Ventures Newly Supported

June 2018 through July 2023

563 # Distinct Ventures
VENTURES SUPPORTED OVER TIME

USM Status
- NEW TO USM
- RE-ENGAGED

USM Founders (Red)

Student Founders (Red)

USM IP (Red)

Industry
- Consulting & Other
- Consumer & Food
- Information Technology
- Life Science
- Sustainability & 

% Ventures

Report Period

Spinout Institution

Distinct Ventures

Report Period

Ventures Supported Over Time
SUPPORT BY TYPE

Includes the Momentum Fund!
Additional State-Wide Venture Support

The Maryland Small Business Development Center (SBDC) is a public-private partnership between the U.S. Small Business Administration, the State of Maryland and UMCP. The Maryland network hosts entrepreneurial assistance programs at a number of USM institutions.

Helps Maryland retain top tech talent by increasing the number of paid technical internships offered in the state. Administered by UMBC and funded by the State of Maryland, the program offers financial assistance to technology-based businesses, as well as state and local agencies, to hire more interns (mtip.umbc.edu).

About 30% of startup participants also are USM "spinouts" or "spin-ins".