
AGENDA FOR PUBLIC/CLOSED SESSION

- | | |
|---|--|
| Call to Order | Chair Bill Wood |
| 1. Approval of Minutes | Regent Bill Wood |
| 2. Discussion of research-related visits to campuses | Regent Bill Wood |
| 3. Update on ongoing research and economic development activities | Michele Masucci |
| 4. Research Report for the University of Maryland, College Park
The University of Maryland, Baltimore | Vice President for Research
Patrick O'Shea
Senior Vice President
James Hughes |



UNIVERSITY SYSTEM
of MARYLAND

BOARD OF REGENTS
COMMITTEE ON Research and Economic Development

2/20/2026

Meeting via Video and Conference Call

Minutes of the Public Session

Regent Wood called the meeting of the Research and Economic Development Committee of the University System of Maryland Board of Regents to order in public session at 10:00 a.m. on 2/20/2026 via Zoom.

Those in attendance included Regents Bill Wood, Anwer Hasan, Robert Hur, Dhruvak Mirani, Michele Speaks, Sherri Nadine Blount, Harry Coker Jr.; Chancellor Jay Perman; Chief of Staff to the Chancellor Denise Wilkerson; Vice Chancellors Michele Masucci, Mike Sandler, and Alison Wyrnn, Susan Lawrence; Lindsay Ryan, Julia Chadwick.

1. **Approval of Minutes (action)** The Regents reviewed and approved the minutes for the October 10 meeting of the Research and Economic Development Committee.

(Regent Speaks moved recommendation, seconded by Regent Blount; approved)

Vote Count = Yeas: 7 Nays: 0 Abstentions: 0

2. **Highlights on Research Excellence Across the USM (information)** Vice Chancellor Michele Masucci provided an overview of highlights on research excellences across the USM to the Research and Economic Development Committee. This informational presentation focused on research impacts, research and economic development, the context of state and federal funding, and the role that the OVCRED office plays in the wider USM research landscape. All meeting materials are available on the USM website.
3. **Highlights on Research Excellence Across the USM (information)** Vice Chancellor Michele Masucci, Executive Director Lindsay Ryan, and Director of Research and Economic Development Julia Chadwick gave a presentation on metrics for research and economic development to the Research and Economic Development Committee. This informational presentation focused on USM Enterprise HERD expenditures from 2019-2025, USM NSF rankings from the FY2024 report, technology transfer/research-centered venture data from 2025. All meeting materials are available on the USM website.
4. **Metrics as a Driver of Impact (information)** Vice Chancellor Michele Masucci provided a presentation on metrics as a driver of impact to the Research and Economic Development Committee. This informational presentation focused on how the metrics show in the previous presentation drive tangible impacts in the standing of the USM. It also highlighted faculty and student excellence across the USM within various national institutions, like the NAI, the National Academies, Fulbright, and the American Academy of Arts and Sciences. All meeting materials are available on the USM Website.

5. **Discussion (information)** The discussion item on the agenda was deferred to the next meeting, to take place on April 24, 2026 at 10:00 a.m. via Zoom.

6. **Convene (action)** Regent Wood read the closing statement and opened the floor for a motion to adjourn.
(Regent Coker moved recommendation, seconded by Regent Speaks; approved)
Vote Count = Yeas: 7 Nays: 0 Abstentions: 0

The public meeting was adjourned at 11:31 a.m.

Respectfully submitted,

Committee Chair William Wood
Chair, Committee on Research and Economic
Development

Research and Innovation @ the University of Maryland

USM Board of Regents
Research & Economic Development



University of Maryland Research Enterprise

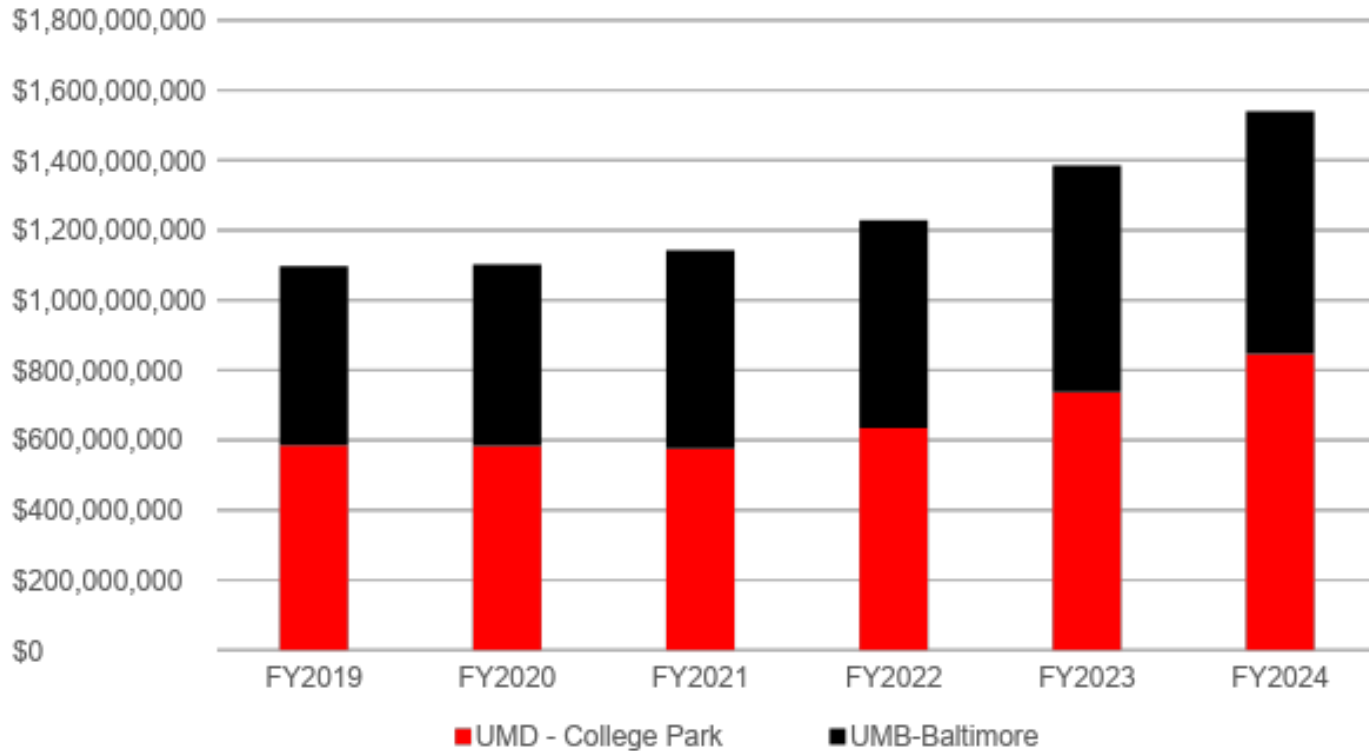


Students: 41,725
Bachelor Degree Programs: 105
Masters Degree Programs: 120
Doctoral Degree Programs: 85
Number of Faculty: 4,540
Number of Staff: 6,485



Students: 6,650
Bachelor Degree Programs: 0
Masters Degree Programs: 45
Doctoral Degree Programs: 40
Number of Faculty: 3,255
Number of Staff: 4,000

University of Maryland Research Expenditures



University of Maryland Ranked #9 Among U.S. Public Universities in R&D Expenditures

NSF Higher Education Research & Development (HERD) Survey



Public Institutions



UNIVERSITY OF
MARYLAND 7/34



UNIVERSITY of MARYLAND
BALTIMORE

MPOWERing the State **Initiatives**



UNIVERSITY OF MARYLAND
**INSTITUTE FOR
HEALTH COMPUTING**
MPOWERING THE STATE

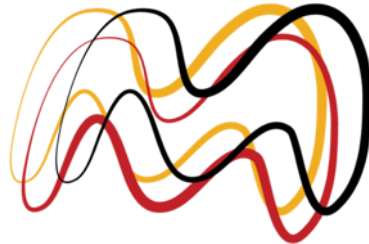


UNIVERSITY OF MARYLAND
SAFE CENTER
FOR HUMAN TRAFFICKING SURVIVORS
MPOWERING THE STATE

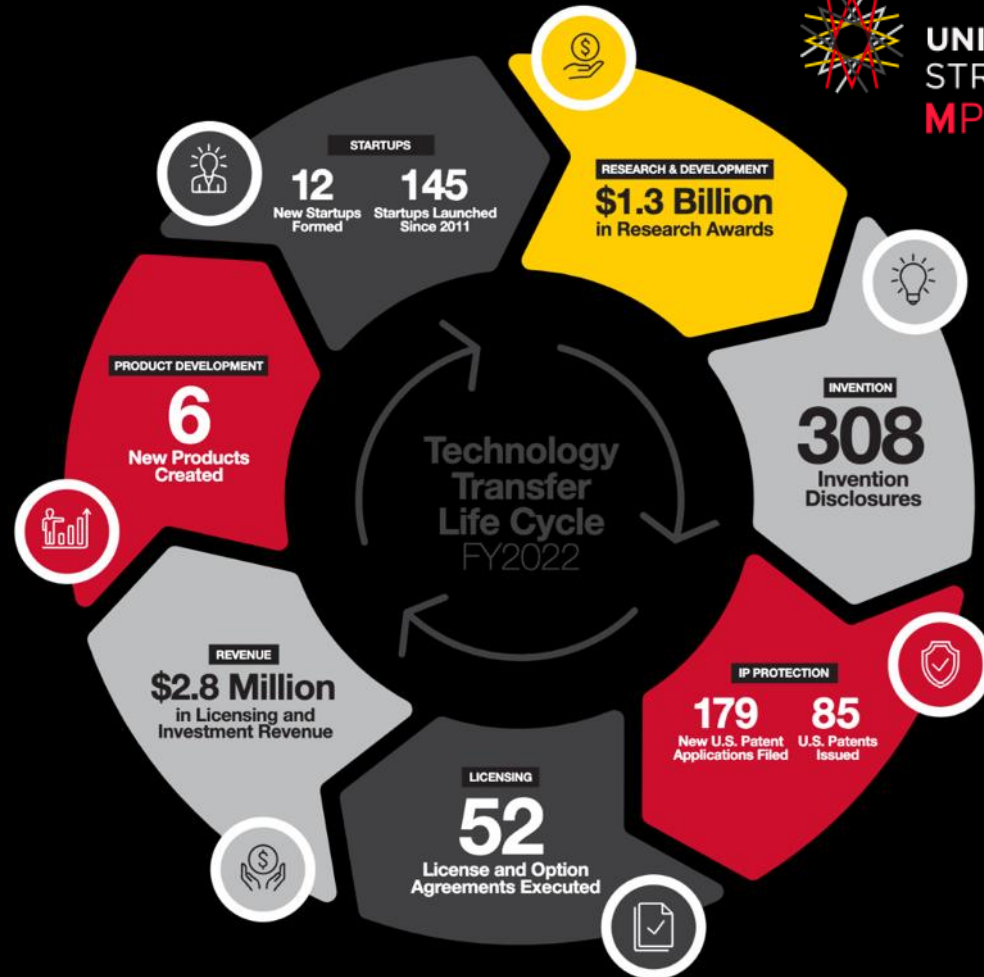
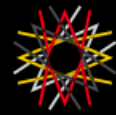
M4K



UNIVERSITY OF MARYLAND
**THE EDWARD AND JENNIFER ST. JOHN
CENTER FOR TRANSLATIONAL
ENGINEERING AND MEDICINE**
MPOWERING THE STATE



UM | NIST
**INSTITUTE FOR
BIOSCIENCE &
BIOTECHNOLOGY
RESEARCH**





University of Maryland College Park

THE PLAN

- GOAL 1:** Expand our impact through strategic research partnerships with local, state, national, and global stakeholders.
- GOAL 2:** Catalyze innovation and entrepreneurship for inclusive economic development.
- GOAL 3:** Enhance the economy, educational outcomes, social justice, quality of life, and civic engagement of our neighbors and neighborhoods through relationship-building and ongoing commitment to partnerships.



THE PLACE

The UMD Discovery District

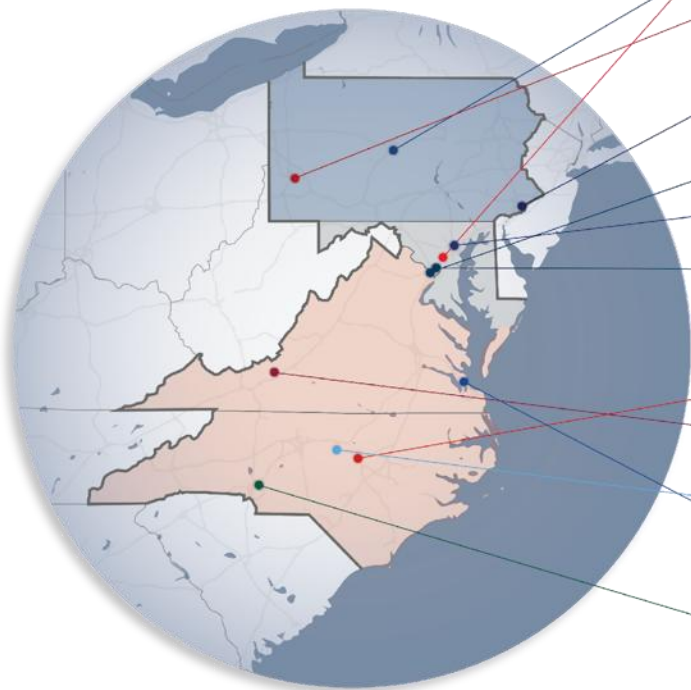
2M+ square feet of space | 60+ companies | 4 U.S. federal agencies



**DISCOVERY
DISTRICT
MARYLAND**

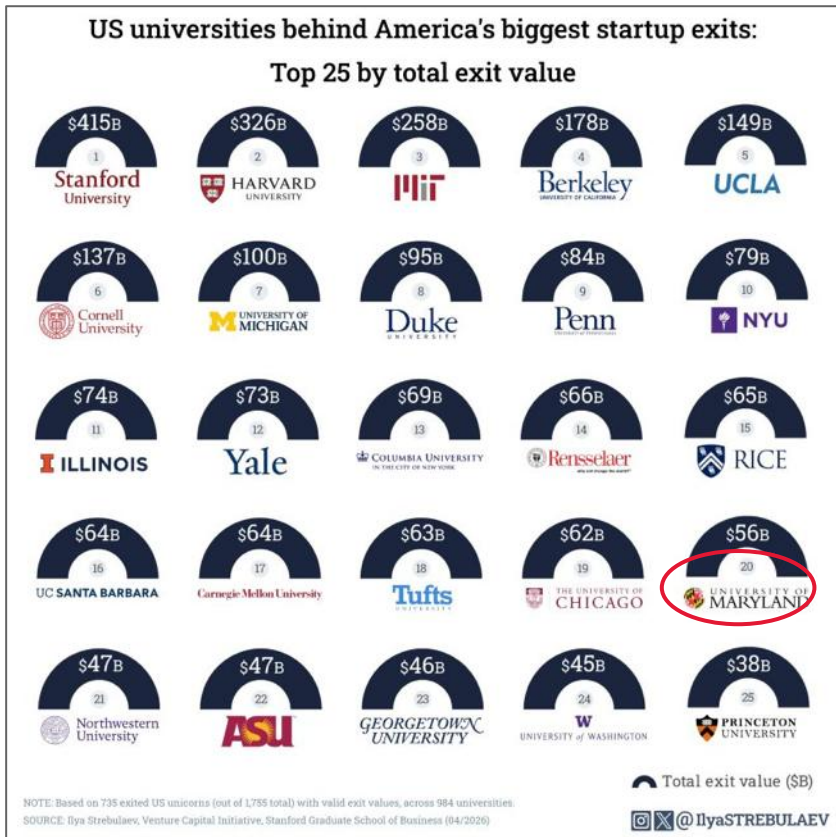
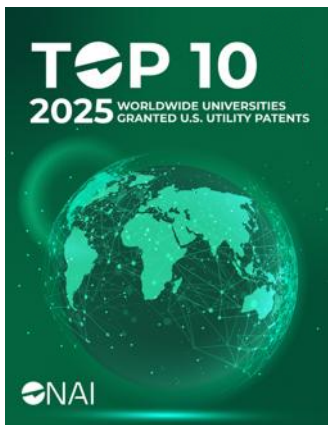


THE PARTNERS



	 UNIVERSITY OF MARYLAND	LEAD
	 PennState	PARTNER
	Carnegie Mellon University	PARTNER
	 Penn <small>UNIVERSITY OF PENNSYLVANIA</small>	PARTNER
	THE GEORGE WASHINGTON UNIVERSITY <small>WASHINGTON, DC</small>	PARTNER
	 JOHNS HOPKINS UNIVERSITY	PARTNER
	 HOWARD UNIVERSITY	PARTNER
	NC STATE UNIVERSITY	PARTNER
	 VIRGINIA TECH	PARTNER
	 UNC	PARTNER
	HAMPTON UNIVERSITY	PARTNER
	 UNIVERSITY OF NORTH CAROLINA CHARLOTTE	PARTNER

THE PRAISE



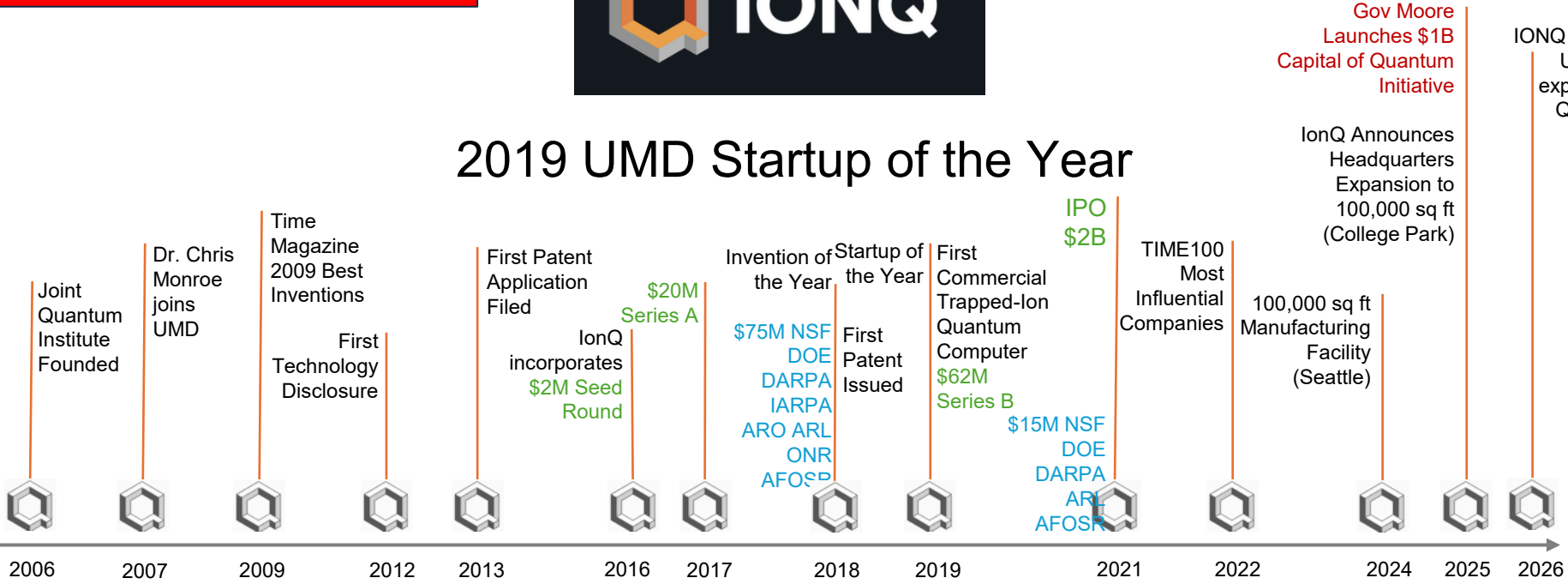
innovate.umd.edu



THE STARTUPS: Quantum Computing



2019 UMD Startup of the Year



- 24 Inventions
- 207 US and international applications filed
- 151 US and international patents issued
- 4,000 Staff hours

407
Jobs Created
15/34

126
Jobs created in
Maryland

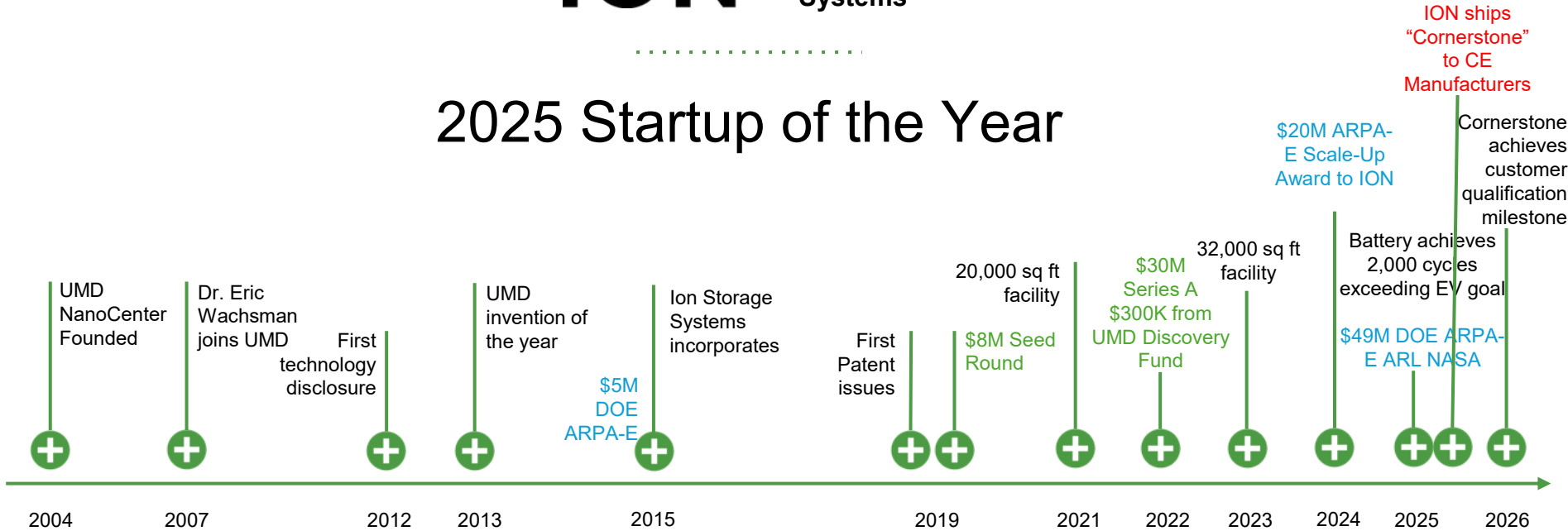
\$400M
Equity Financing

\$43M
Annual Revenue

THE STARTUPS: Solid State Batteries



2025 Startup of the Year



- 32 Inventions
- 48 US and international applications filed
- 30 US and international patents issued
- 5,000 Staff hours

75
Jobs Created
16/34

\$74M
R&D Grants

\$38M
Equity Financing

**New
Technologies
ready for
investment**

Recent Startups	Faculty Inventor	Description
RelAI	Soheil Feizi	Scalable AI reliability engine to enable software development teams to increase reliability of AI models and decrease development time
Ventoscity	Brantley Hall	Proof-of-concept Smart Underwear to measure human gut microbiota to diagnose gastrointestinal diseases.
New Copper	Shenqiang Ren	Novel process for producing copper ink for printed circuits. High conductivity, resists corrosion, and sustainable.
Nodal Therapeutics	Christopher Jewell	Platform for immunomodulation by injecting antigens into lymph nodes. Targets diabetes, cancer, multiple sclerosis, organ rejection.
LightSiNC Nanotech	Xiyuan Lu	SiNC Photonics (LightSiNC NanoTech, LLC) provides silicon nitride and silicon carbide photonic chip design and fabrication.
ProSight AI	Min Wu	Powered by patented remote PPG technology developed at UMD, captures heart and respiratory rates from standard video.

THE FUNDS

UMCP Ventures:

Venture investment platform providing capital and other resources to high growth potential UMCP - affiliated tech startups

1. accelerate growth
2. increase the likelihood of success
 - Raise Series A round
 - Exit (attractive return on investment)
3. train and employ next generation of new economy workforce
4. Connect capital to promising startups (angel groups)

UMCP Ventures
Venture Capital Investment Platform +

Dingman Center Angels

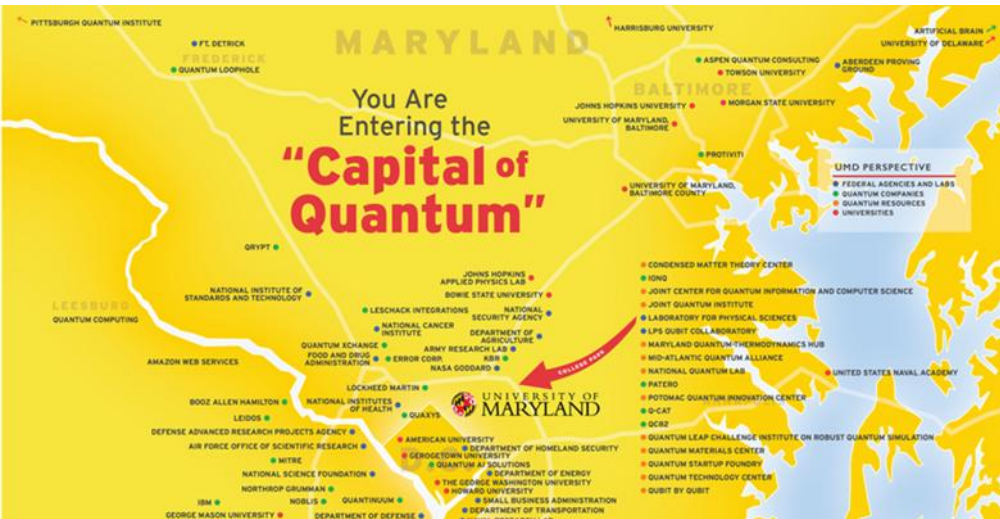
Discovery Fund

Terrapin Fund

**Chesapeake Bay Seed
Capital Fund**

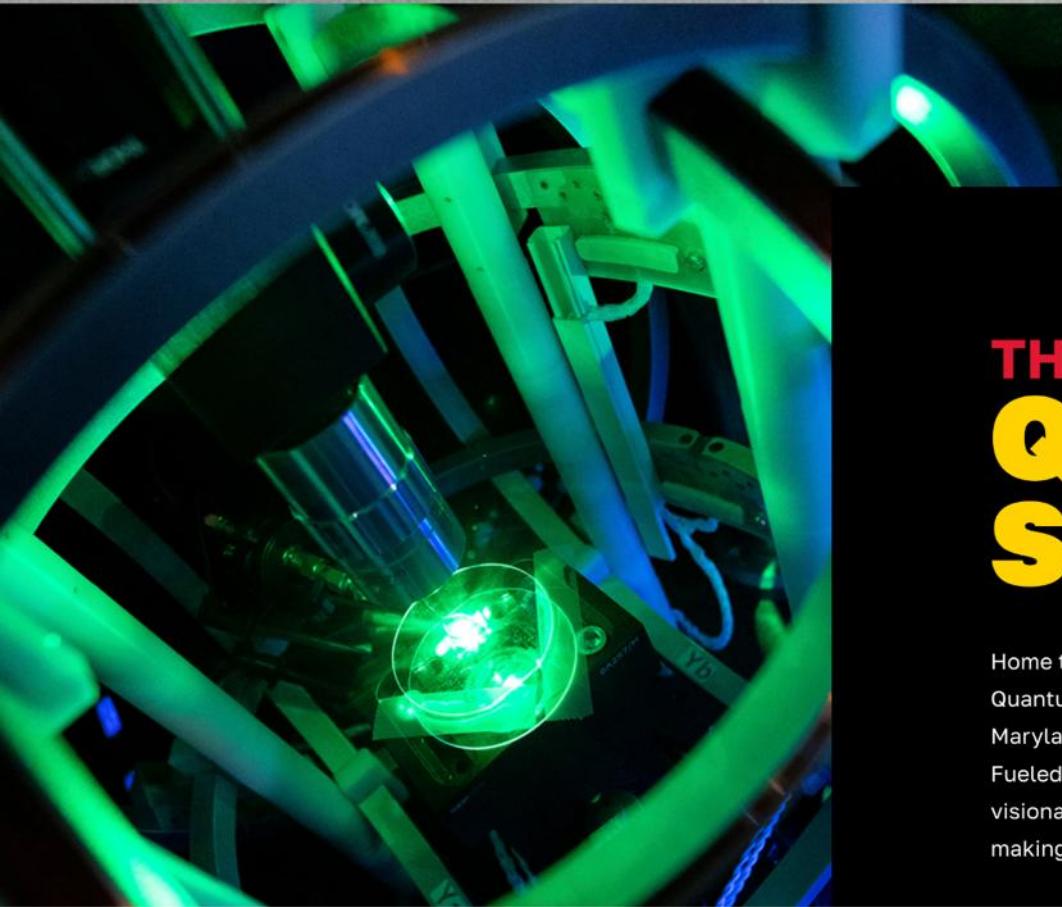
THE FUTURE

>>>> The Capital of Quantum



THE FUTURE

>>>> The Capital of Quantum



THE FRONTIER OF **QUANTUM SCIENCE**

Home to the largest concentration of quantum scientists, the National Quantum Lab (QLab), and the Quantum Startup Foundry, the University of Maryland has grown into a hub for quantum research and development. Fueled by our highly collaborative community of more than 200 scientists, visionaries, and entrepreneurs, industry-shaping leaders like IonQ are making their home here in the Capital of Quantum.

Grand Challenges



MASSIVE SPILL

NEARLY 250M GALLONS OF RAW SEWAGE FLOWING INTO POTOMAC



- 50 multidisciplinary projects
- Raised \$55M+ in external funding
- 450 partners, 63,000+ external stakeholders



GRAND
CHALLENGES GRANTS

UMD Service to the State: **Economic Impact**

\$3.7B

In annual economic impact on the state's economy



\$2B

In public-private investment in Greater College Park in the past 10 years

Helping Small Businesses





University of Maryland Baltimore



UNIVERSITY of MARYLAND SCHOOL OF MEDICINE



UNIVERSITY
of MARYLAND
BALTIMORE



FUELED BY RESEARCH

Grants and contracts account for the single largest share of UMB's annual budget, followed by patient care.

\$636M

FY2025 extramural awards

\$1.46M

research dollars per core faculty

\$78M

FY2025 corporate sponsored awards

\$197M

FY2025 NIH awards

\$3.5B

UMB Economic Impact

\$149.1M

State and local govt revenues generated

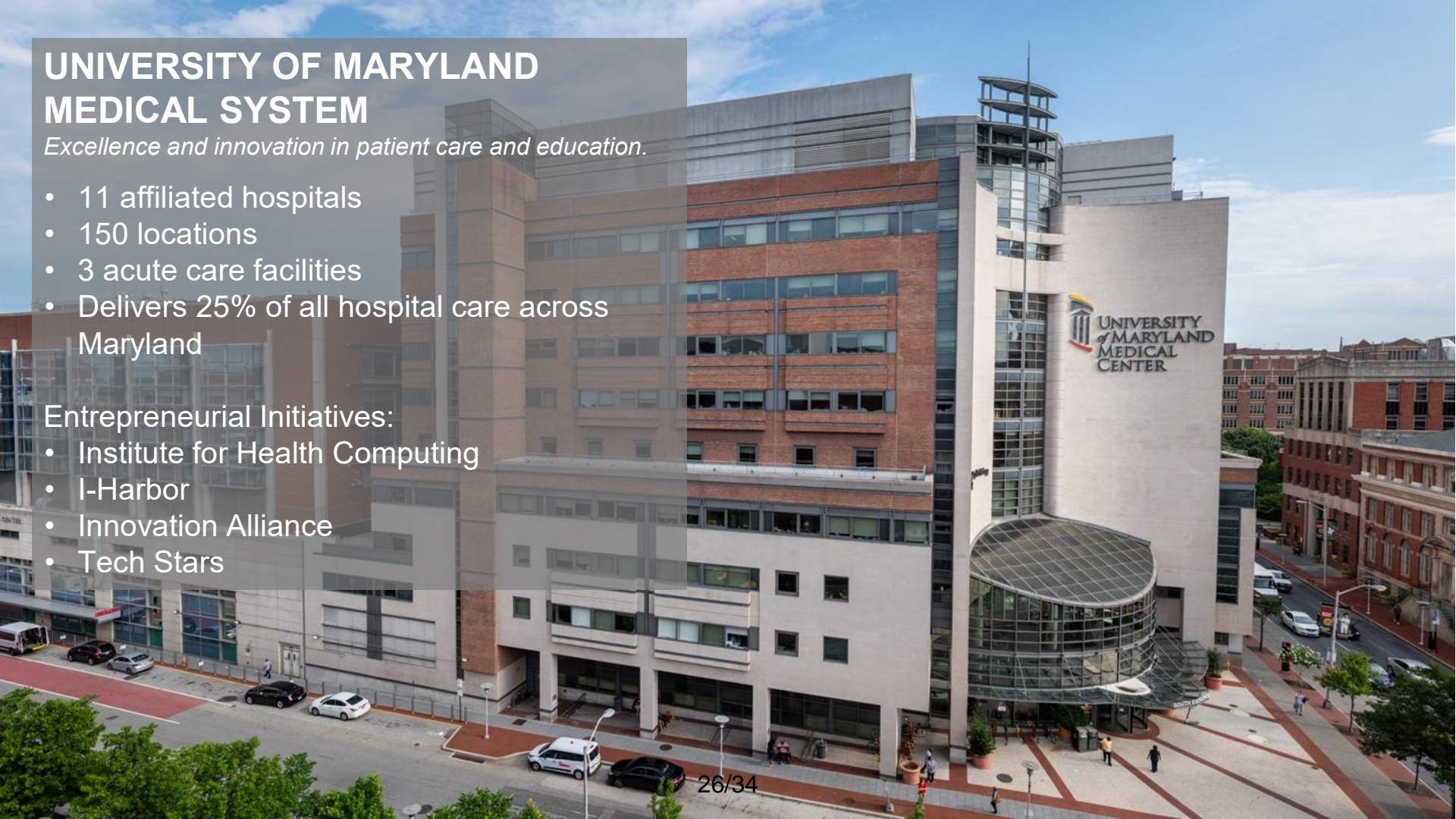
UNIVERSITY OF MARYLAND MEDICAL SYSTEM

Excellence and innovation in patient care and education.

- 11 affiliated hospitals
- 150 locations
- 3 acute care facilities
- Delivers 25% of all hospital care across Maryland

Entrepreneurial Initiatives:

- Institute for Health Computing
- I-Harbor
- Innovation Alliance
- Tech Stars



Baltimore's largest biotech cluster

- 14 acres
- 5 buildings
- 850,000 SF office & lab
- 2M SF at full build out
- \$800M capital investment
- 40 tenants
- 1,000+ jobs
- 1,000+ patients
- 800 students



Resources for UMB Inventors & Startups



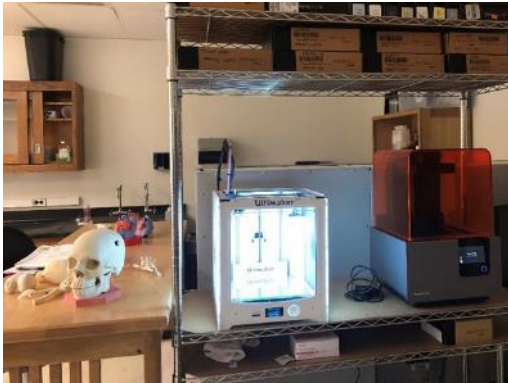
UM Ventures' Wet Lab

- Molecular & cell biology capabilities
- **Opened 2019** (UM BioPark)
- TRP expansion for UMB inventors (& Biorepository storage available)
- Designed for UMB startups (currently in high demand)
- Staffed by 1 FTE MD and PhD researchers



UM Ventures' Prototyping Lab

- Design, 3-D printing & tooling capabilities
- **Opened 2021** (Bressler Rm. 4034)
- Linked with UMD Fischell Biomedical Device Institute
- Staffed by full-time Medical Device Research Engineer



Connect Labs

38,000 SF facility, featuring:

- 24 inter-connected lab units of various sizes with a total of 700 linear feet of lab benches
- Shared equipment facility fully integrated with UMB's comprehensive Center for Innovative Biomedical Resources
- Staffed by full-time lab managers and administrative team who will connect tenants with local resources and services.

Resources for UMB Inventors & Startups

Life Sciences IP Fund



- 42 technology investments with \$5 million committed
- 6 startups
- 17:1 catalyzed capital to LSIPF investment
- 4 clinical studies (3 first in human clinical studies)

NVI Startups



- 3 NVI startups
- 2 exits (Living Pharma and SurgiGyn)
- 2 strategic investments
- \$2 million Phase 2 SBIR (Isoprene Pharmaceuticals)

UMVB Investments



- 20 investments in 13 companies
- 16x return (plus upside) on 4 investment exits including equity from UMB IP license agreements
- >\$100 million in catalyzed capital
- 6 product approvals

NEW R&D FUNDING OPPORTUNITIES – BLACKBIRD LABS & UM-BILD

Blackbird Laboratories Launches With \$100 Million Grant from Stephen and Renee Bisciotti Foundation

Nov 07, 2023 at 04:36 PM



Clifton Brown
BaltimoreEzra.com Staff Writer



University of Maryland, Baltimore Receives Landmark Funding to Create New Innovation Hub in West Baltimore and the Region

November 21, 2023 | Deborah Kotz
















UM School of Medicine Faculty Leading the Way in Attracting Life Sciences Start-Up Companies, Building a Diverse Workforce

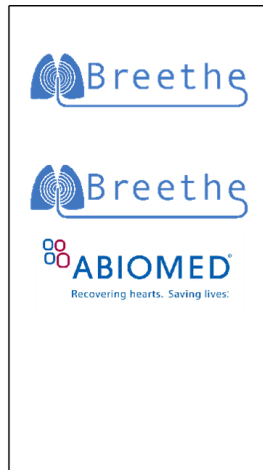
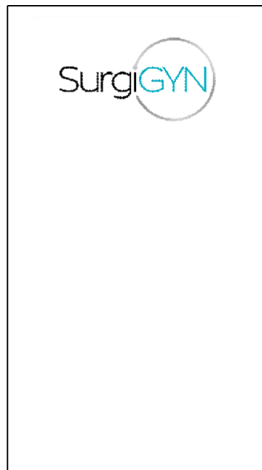
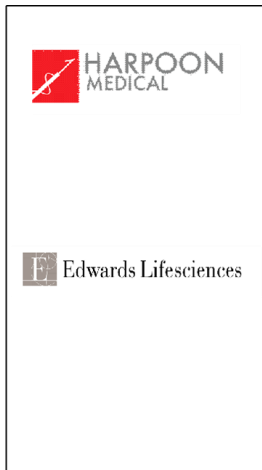
University of Maryland, Baltimore (UMB) President Bruce Jarrell, MD, FACS, and University of Maryland School of Medicine (UMSOM) Dean Mark Gladwin, MD, announced today that the university has received a four-year, \$4 million Research Evaluation and Commercialization Hubs (REACH) grant from the National Institutes of Health (NIH). The grant, shared with the University of Maryland Baltimore County (UMBC), will support both institutions' work advancing the biomedical entrepreneurship and innovation economy in West Baltimore and Greater Baltimore. It will also serve to train one of the most diverse biomedical and entrepreneurial workforces in the country.

"We recognize that to create our own unique cohort of newly trained

Investment Portfolio

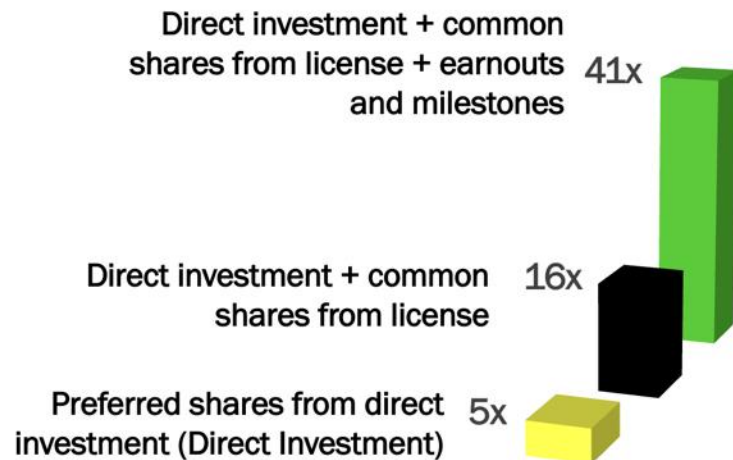
 <ul style="list-style-type: none"> • Nov. 2014 – First Investment • Exit – Edwards Dec. 2017 	 <ul style="list-style-type: none"> • Apr. 2015 – Seed Round • Exit – Abiomed Apr. 2020 	 <ul style="list-style-type: none"> • Jun. 2015 – NVI Seed • Exit – <u>Miltenvi</u> Jul. 2017 	 <ul style="list-style-type: none"> • Dec. 2016 – Seed Round • Co-owned tech w/ UMCP 	 <ul style="list-style-type: none"> • Sept. 2017 – NVI Seed • Exit – Med Device Feb. 2020
 <ul style="list-style-type: none"> • Dec. 2018 – Seed/Bridge • Momentum Fund Company 	 <ul style="list-style-type: none"> • Jan. 2018 – Initial (Seed) • Aug. 2020 – Series B • Aug. 2024 – Series B2 	 <ul style="list-style-type: none"> • Apr. 2019 – Seed Round • Momentum Fund Company 	 <ul style="list-style-type: none"> • Jan. 2020 – Seed Round • Jun. 2020 – Series A (Ajax Health) 	 <ul style="list-style-type: none"> • Jan. 2021 – NVI Seed • Aug. 2021 – Phase II SBIR
 <ul style="list-style-type: none"> • Jul. 2021 – Series C • Jun. 2023 – Series C-1 	 <ul style="list-style-type: none"> • Oct. 2023 – Pre-seed Round 	 <ul style="list-style-type: none"> • April 2025 – Seed Plus round 		

Investment Portfolio Exits



\$20 billion average market capitalization of acquiror at time of acquisition

UMVB Return



Spotlight Companies



KALOCYTE

Pre-clinical biotech company developing a novel bio-inspired artificial red blood cell substitute for use as a lifeline when blood is not available.

Cofounded by Allan Doctor, MD, the Director of the University of Maryland School of Medicine's (UMSOM) Center for Blood Oxygen Transport and Hemostasis.

KaloCyte works closely with UMSOM and is partnering with them on a \$46 million Defense Advanced Research Projects Agency (DARPA) grant to develop a shelf-stable whole blood equivalent.



IRAZÚ Oncology

IRAZÚ Oncology, is advancing a vaccine candidate for colorectal cancer. Their novel platform builds on a technology initially developed at the Center for Vaccine Development and Global Health at the University of Maryland School of Medicine.

IRAZÚ's CEO, Jeff Stovel, PhD, and its Chairman, Marco Chacon, PhD, are successful serial entrepreneurs and received their PhD's from UMB. Dr. Chacon is the Founder of Paragon Bioservices which was acquired by Catalent for \$1.2 billion. Catalent is the largest tenant in the BioPark.

LEVERAGING MOMENTUM AND ASSETS

Highlighting West Lexington Development



LEXINGTON MARKET

\$45M Investment
60,000 sq. ft.
45+ Merchant Spaces
Redeveloped/Opened 2023

HIPPODROME THEATRE

2,248 Seat Theater
Broadway Across America Productions
300,000 Annual Attendees

EVERYMAN THEATER

253 Seat Main Auditorium
210 Seat Production Space
14,000 Annual Subscribers

CFG BANK ARENA

14,000 Seat Venue
\$250M Renovation in 2023
278,000 Annual Attendees

UNIVERSITY OF MARYLAND MEDICAL CENTER DOWNTOWN

806 Bed Hospital
9,049 Employees
New Cancer Center
\$185M Investment
198,000 sq. ft.
Opening 2026

BALTIMORE VA MEDICAL CENTER

324 Bed Medical Center
3,775 Employees
Primary & Specialty Care

UM BIOPARK

14 Acres, 7 Buildings
44 Companies
1,000 Employees

METRO WEST

Maryland Department of Health
3,000 State Employees
Opening 2026

NEW SCHOOL OF SOCIAL WORK

\$120M Investment
127,000 sq. ft.
Opening Summer 2027

WEST LEXINGTON CORRIDOR DEVELOPMENT

- UMB BUILDINGS**
- NEIGHBORHOOD ASSETS**
- HEALTHCARE ASSETS**