



**Tuesday, November 18, 2025**

**10:00 AM - 12:00 PM**

**4MLK, UM BioPark, 2nd floor**

**4 N Martin Luther King Jr. Blvd., Baltimore, MD, 21201**

## **Meeting Minutes**

### **Welcome and Introductions**

Dr. Jay Perman gave opening remarks and reviewed the ground rules of the meeting. He called the meeting to order and noted scheduling challenges which precluded a number of members from attending.

Mary Morris, Director, UM Ventures Baltimore Fund, welcomed the board to 4MLK. She noted the building had hosted more than 200 events and 12,000 people since opening in January of 2025. The Connect Labs biotech laboratory space was now hosting 17 life sciences companies which took occupancy since opening in early 2025.

### *Board Members in Attendance*

1. Jay Perman, MD – Chancellor, University System Maryland [Chair]
2. Nawal Benmouna, PhD – Vice President of STEM and Health Sciences and Interim VP of Workforce Development and Industry Partnerships, Montgomery College
3. Jesse Christopher – CEO and Co-founder, Longevity
4. Mark Mortenson, JD – Chief Scientific Officer, Clene Nanomedicine
5. Ruchika Nijhara, PhD – Executive Director, Maryland Stem Cell Research Fund [ex officio]
6. Matthew Tremblay, PhD – CEO, Blackbird Laboratories
7. Christy Wyskiel – Senior Advisor to the President and Executive Director Johns Hopkins Technology Ventures, Johns Hopkins University

### *Department of Commerce Attendees*

1. Ricardo Benn – Deputy Secretary, Innovation and Growth
2. Stefanie Trop, PhD – Director, Life Sciences
3. Matthew Cimino, PhD – Senior Manager, Business Development, Life Sciences
4. Bradley Gillenwater – Business & Innovation Development Manager, Life Sciences

### *General Public Attendees*

1. Eve Boyle – Department of Labor
2. Stephanie Branford – Brayearst Validation Consulting
3. Karen King-Sheridan – Maryland Higher Education Commission
4. Tiffany Majors – Maryland Higher Education Commission
5. Mary Morris - UMB
6. C. Daniel Mullins, PhD – University of Maryland School of Pharmacy
7. Sanjay Rai, PhD – Maryland Higher Education Commission
8. Jane Shaab – University of Maryland, Baltimore

Dr. Perman reminded everyone about the Board charge to maintain Maryland's unique place in the global life sciences industry and reviewed the meeting's agenda.

### **Review and Acceptance of July 15, 2025 Meeting Minutes**

Action on the July 15, 2025 meeting minutes was tabled until the next meeting.

### **JHTV Updates**

Ms. Christy Wyskiel updated the board on JHTV's success, outcomes, and goals, noting the impact of dramatic changes in federal funding in 2025. JHTV is focusing on diversifying revenue streams, particularly industry partnerships. Since 2015, JHTV has generated \$100M of revenue from technology licensing and sponsored research, 70 active industry partnerships and supported 135 active startups, seeing 45 exits. In FY 2025, JHTV accounted for 44% of the University's industry sponsored research.

Eighty out of the 135 JHTV startups are Maryland based with 56% of the venture capital raised for these companies staying in Maryland. Ninety-three percent of the JHTV startups are in healthcare, with a significant proportion focused on cancer diagnostics, medical devices, and digital health applications.

The amount of venture capital raised by JHTV startups has grown and is gaining momentum. From FY 2007 to 2014, they raised \$740M, of which 6% stayed in Baltimore. In contrast, from FY 2015 to FY 2025, startups raised \$4.8B, with 43% of that total staying in Baltimore, a result of JHTV's mission to support and encourage startups to remain in state.

In September 2025, JHTV partnered with Brown Advisory and Blackbird Laboratories to host the Innovation Summit 2025. The event, which coincided with the University's 150th anniversary, featured portfolio company pitches, keynote speakers, and networking opportunities for investors and industry leaders.

Additionally, Ms. Wyskiel detailed plans for the 700,000-square-foot Johns Hopkins Data Science and AI Institute on the Homewood campus. This major initiative will integrate experts in AI, machine learning, and computer science, supported by 120 new faculty hires and 30 new Bloomberg Distinguished Professorship endowed chairs.

Dr. Tremblay noted the success and importance of the Innovation Summit for attracting venture capitalists from outside of Maryland. Mr. Christopher reminded the board that his company is based on technology licensed from JHU and applauded the success of Maryland's ecosystem development that ultimately supports and retains Maryland's life science startups. Dr. Perman noted that Ms. Wyskiel authored a paper recently published in *Fast Company*, entitled 'The Academic Origins of Everyday Tech' (November 17, 2025).

### **Clene Nanomedicine Updates**

Mark Mortenson, JD, CSO of Clene Nanomedicine, reported on the company's clinical progress in treating neurodegenerative diseases like ALS, Parkinson's, and MS. Clene's lead drug candidate,

CNM-Au8, utilizes a first-in-class catalytic nanotherapeutic approach to improve mitochondrial health and protect neuronal function. By enhancing the NAD<sup>+</sup> pathway via nanocrystal technology, the treatment aims to restore cellular metabolism and prevent neuronal death. Backed by over 150 patents, the technology has shown preliminary evidence of effectiveness in neuroprotection and remyelination.

Dr. Tremblay asked for clarification on how the nanoparticles reach the mitochondria. Mr. Mortenson explained that the nanoparticles are absorbed by the body in the stomach, coated with protein, and become endocytosed to reach the intracellular mitochondria. Dr. Nijhara and Mr. Christopher asked about preventative benefits or the longer term need for patients to take the drug after initial treatment. Mr. Mortenson indicated this was an ongoing area of study.

### **Department of Commerce Updates**

*Life Sciences Trade Shows: AdvaMed MedTech Conference, HLTH USA*

Dr. Matthew Cimino reported on the department's participation in AdvaMed's MedTech Conference and HLTH USA in October 2025. Joined by Dr. Trop and Mr. Gillenwater, the team focused on expanding awareness of Maryland's life sciences ecosystem, connecting with investors and startups, and staying current on market trends. These efforts were designed to support the growth of Maryland-based companies and attract long-term talent and innovation to the state.

For the MedTech Conference, Commerce sponsored registration of 15 medtech and digital health companies, and opportunities for three of these companies to pitch at the conference's Innovation Pavilion. Additionally, Commerce organized a pre-conference orientation hosted at Becton Dickinson's facility in Sparks, MD and led by BD's Mr. Nikos Pavlidis, Worldwide President, BD Diagnostic Solutions, and Mr. Michael Ettinger, Director, Strategy & Business Development – M&A, Diagnostic Solutions. Attendees learned about BD's business development strategy and received a tour of their Innovation Lab.

Regarding HLTH USA, Maryland hosted its inaugural pavilion on the conference floor, sponsoring eight Maryland medtech and digital health startups to exhibit, and providing registration for two members from each company. Maryland was the only state with a pavilion at HLTH. Commerce held a pre-conference orientation at the World Trade Center for members of the Maryland delegation, as well as other Maryland attendees, including representatives from AstraZeneca and 2020 Biolabs.

Feedback from the sponsored companies attending the conferences was overwhelmingly positive. Companies reported success with connecting with investors, strategic partners, as well as potential customers.

Dr. Perman reminded the board and Commerce staff about the importance and competitive advantage created by Maryland's workforce and its importance in conversations at national conferences. Mr. Mortenson asked about participation by nutrition companies at the HLTH conference, which was thought to be present, but modest.

### *International Trade Missions and Investment*

Mr. Ricardo Benn initiated a discussion on Commerce's strategy for supporting the Maryland life sciences ecosystem through international trade missions and foreign direct investment. He shared that efforts around foreign investment strategy will better track Maryland's lighthouse sectors of life sciences, aerospace, and quantum / machine learning / artificial intelligence. He also stated that Commerce had launched a new position, Director of Domestic Investment. This position was designed to support better engagement with U.S. investors, as well as showcase investment opportunities in Maryland. Mr. Benn outlined a desire by Commerce to move beyond memoranda of understanding and pursue introductions with partners that can better engage with investors, including sovereign wealth funds.

Dr. Tremblay and Ms. Wyskiel requested clarification on key performance indicators (KPIs) and success metrics for these investment strategies. Mr. Christopher proposed expanding the Biotechnology Investment Incentive Tax Credit (BIITC) program to better accommodate the scale and terms of foreign direct investment. Additionally, Dr. Nijhara highlighted the dual opportunity to export Maryland technology while attracting international partners to the state. In response to Mr. Mortenson's inquiry regarding the overall balance between investors and companies, and following extensive discussion, Dr. Perman deferred further discussion on this topic to a subsequent meeting.

### **University of Maryland PATIENTS Program**

Dr. C. Daniel Mullins, PhD, Executive Director, The PATIENTS Program, presented on *Continuous Engagement Science (CES) for the Life Sciences Industry: The PATIENTS Program's Approach*. PATIENTS is an acronym based on The PATient-centered Involvement in Evaluating effectiveNess of TreatmentS.

Funded by the National Institute On Minority Health and Health Disparities, the PATIENTS program supports an ongoing, inclusive community among patients, care partners, and communities to co-develop health research with meaningful outcomes for at-risk groups. It focuses on fostering trust and authentic collaboration, with measurable approaches to sustain ongoing engagement between researchers and communities. Through its partnership with Mt. Lebanon Baptist Church, the program has documented clear impact and success with community-based recruitment and retention for clinical trials and related health services. The positive outcomes of the PATIENTS program have led to national expansion of the program, as well as the creation of a master services agreement with AstraZeneca to support clinical trial staff and patient-centered recruitment efforts for cancer research.

Dr. Tremblay asked to compare the PATIENTS program application effectiveness in rare disease research versus larger clinical trial research. Dr. Mullins clarified that as the program grows, PATIENTS will be adaptable to research projects of varying sizes. Mr. Mortenson inquired about the allocation of the staff's time within the program, whereby Dr. Mullins shared that about 15% of staff time was used for community engagement and about 85% was dedicated for conducting research studies.

## **Maryland Higher Education Commission Updates**

Dr. Sanjay Rai, PhD, Secretary, Maryland Higher Education Commission, presented on the higher education's importance to the life sciences sector, and how Maryland's institutions of higher education can help maintain the state's #3 national biopharma hub ranking. He cited challenges of rapidly changing technologies, such as artificial intelligence and machine learning, and the retention of highly trained graduates who leave the state. Dr. Rai praised community colleges, specifically Montgomery College, for offering specialized training, such as gene editing, and noted MHEC's ongoing alignment with industry needs in the key lighthouse sectors (life sciences, aerospace, artificial intelligence and quantum computing). He suggested improving in-state technology transfer and expanding industry-funded sponsored research opportunities.

Ms. Wyskiel and Dr. Tremblay recommended strengthening funding for existing programs such as the Maryland Innovation Initiative (MII) and the Maryland Stem Cell Research Fund (MSCRF). Dr. Nijhara noted that 75% of post-doctoral students funded by MSCRF remain in Maryland. Additionally, Mr. Christopher thought it would be useful to understand how venture capital is currently invested in Maryland, i.e. geography, as well as types and stages of companies. Dr. Perman suggested that the board should revisit the topic of technology commercialization and funding resources.

Mr. Mortenson noted the impacts of artificial intelligence and subsequent job losses in Maryland and the need for higher education to accommodate these changes in work force demands.

### **Public Comments**

None.

### **Closing Remarks**

Dr. Perman thanked everyone for attending and participating in the productive discussion. He announced the BioHealth Capital Region Forum will be held September 15 - 17, 2026 at US Pharmacopeia in Rockville, MD. Dr. Perman adjourned the meeting at 11:58 a.m.