LSAB MARYLAND
LIFE SCIENCES ADVISORY BOARD

Monday, March 1, 2021
1:00 P.M. – 3:00 P.M.
(Virtual)
Meeting Minutes

Welcome and Introductions

Dr. Perman gave opening remarks and reviewed the ground rules of a virtual meeting. He called the meeting to order and carried out roll call to confirm attendance.

Board Members in Attendance

- Jay Perman, MD, Chancellor – University System Maryland [Chair]
- Richard A. Bendis, President and CEO – BioHealth Innovation Inc.
- Jarrod Borkat, Vice President Corporate Strategy – Emergent Biosolutions
- Jesse Christopher, MBA, CEO – Longeviti Neuro Solutions
- Rebecca Fisher, Ph.D., Deputy Director, Congressionally Directed Medical Research Programs – U.S. Army Medical Research and Development Command
- Laurie E. Locascio, Ph.D., Vice President for Research – University of Maryland, College and the University of Maryland, Baltimore
- Theodore J. Olsen, Principal – Neowise, LLC
- Wendy Perrow, MBA, CEO – Oncogenomics, LLC
- Sanjay K. Rai, Ph.D., Chief Academic Officer and Senior Vice President for Academic Affairs – Montgomery College
- Martin Rosendale, CEO – Maryland Technology Council
- Brian Stamper, Director of Manufacturing – Kite Pharma
- Joseph F. Sanchez, Ph.D., MBA, Director, North America R&D Science Engagement – AstraZeneca
- Bob Storey, Principal – The MVR Company
- Frank F. Weichold, M.D., Ph.D., Senior Advisor, Office of Regulatory Science and Innovation, Office of the Commissioner – U.S. Food and Drug Administration
- Christy Wyskiel, Senior Advisor to the President and Head of Johns Hopkins Technology Ventures – Johns Hopkins University
- Kelly M. Schulz, Secretary – Maryland Department of Commerce (Ex-Officio)
- Arti Santhanam, Executive Director – Maryland Innovation Initiative Program, TEDCO (Ex-Officio)

Board Members not in Attendance

- Christopher P. Austin, M.D., Director, National Center for Advancing Translational Sciences – U.S. National Institutes of Health

Department of Commerce Attendees

- Ulyana Desiderio, Ph.D. – Director, BioHealth & Life Sciences
- Heather Gramm – Senior Director, Strategic Industries & Entrepreneurship
- Tamar Osterman – Senior Business Development Representative, Carroll and Frederick Counties
- Connie Page – Administrative Associate

General Public Attendees

- Sally Allain – Johnson and Johnson Innovation, JLABS @Washington, DC
- Sarah Bauder – Connected DMV
- Ernesto Chanona, Ph.D. – CSSi LifeSciences
- Julie Cohen – Johnson and Johnson Innovation, JLABS @Washington, DC
- Karl Darin – Connected DMV
- Sherri Giorgio – Gilead
- Alex Keown – BioBuzz
- Burrell Kilmer – Connected DMV
- Michael Nestor, Ph.D. – Johnson and Johnson Innovation, JLABS @Washington, DC
- Joni Rutter, Ph.D. – NCATS, NIH (representing Dr. Chris Austin)
- J. Thomas Sadowski – University System of Maryland
- Stu Solomon – Connected DMV

Dr. Perman reminded everyone about the Board's charge to maintain Maryland's preeminence in the life sciences industry and gave an overview of the meeting's agenda.

Review and Acceptance of November 20, 2020 Meeting Minutes

Dr. Perman asked for feedback on the minutes of the November 20, 2020 LSAB meeting. Hearing none, he asked for a motion to approve the minutes which was made by Dr. Sanchez and seconded by Dr. Locascio. The meeting minutes were approved unanimously.

Letter of Support for Senate Bill 19

For the record, Dr. Perman stated that this Board voted 13-yes and 3-abstain via email to submit a letter of support for a Senate Bill 19 proposing alterations to one of Maryland's tax credit programs, the Maryland Biotechnology Investment Incentive Tax Credit.

Secretary of Commerce Updates

Secretary Schulz gave a brief update on economic data. Maryland's unemployment rate ended the year at 6.3%, down from a high of 10.1% in April. Through the end of 2020, Maryland regained 250,700, or 65%, of the nearly 390,000 jobs lost in March and April. That recovery is the best in the Mid-Atlantic Region.

Lawmakers moved quickly to pass the RELIEF Act, which provides about $1.5 billion in additional economic relief, including all the provisions proposed by Governor Hogan and the legislature. Some of the additional business relief funding provided in the RELIEF Act will come from the Department of Commerce. The initial grant and loan programs cast a wide net and were designed to quickly provide help to a broad range of small businesses across the state. Several minimum criteria were set, but once businesses demonstrated they had been harmed by the pandemic, the grants and loans were funded first-in, first-out in the order they were received.

The RELIEF Act funding the Department of Commerce will be providing is more narrowly targeted at certain types of businesses where there is still a particular need for relief. The Department will be providing:

- $10 million for grants up to $9,000 for businesses in need of assistance, with priority given to those who have not received aid through Advantage Maryland program;
- $22 million for grants up to $12,000 for bars and restaurants;
- $10 million for grants up to $25,000 for hotels;
- $500,000 for businesses to set up online sales and help employees telework;
- $8 million for private commuter bus operators and local transit systems;
- $10 million in additional funding for the small, Minority, and Women-Owned Business Account

Senate Bill 19 makes changes to Maryland's Biotechnology Investment Incentive Tax Credit that the Department believes will make the program more effective and more accessible to early-stage companies. The Secretary thanked the Board, individuals, and organizations for providing letters of support for this bill.

The Secretary also gave a brief update on vaccination progress in Maryland. Maryland has administered more than 1.1 million vaccine doses in total and is averaging over 31,000 shots per day. Its fourth mass vaccination site is expected to be up and running in Charles County by March 11. Registration is now open for our site at M&T Bank Stadium in Baltimore City.

Introduction: Johnson & Johnson Innovation

Sally Allain, Head of JLABS @Washington, DC gave a brief presentation on Johnson & Johnson Innovation. Johnson & Johnson has been helping companies unleash their potential and creating value through innovation for more than 130 years. JLABS, the global incubator network of Johnson & Johnson Innovation, was established to connect budding life science and healthcare start-ups from Washington, DC to Shanghai to the critical resources, mentorship, community, and deal making power of Johnson & Johnson Innovation. Today, the portfolio of 700 companies have done nearly $44B worth of deals, including 37 IPOs and 25 acquisitions. It is the largest and most diverse

network of network of innovators for consumer health, medical devices, and pharmaceuticals. Importantly, the portfolio includes 30% of women-led and 30% of minority-led companies.

JLABS is collaborating with the Biomedical Advanced Research and Development Authority (BARDA), a component of the Office of the Assistant Secretary for Preparedness and Response in the U.S. Department of Health and Human Services, on a joint initiative called BLUE KNIGHT™. Blue Knight is dedicated to anticipating potential health security threats, activating the global innovation community, and amplifying scientific and technological advancements with the aim to prepare for and respond to our rapidly evolving global health environment.

JLABS at Washington, DC will open in March 2021. The 32,000-square foot facility on the Children's National Research & Innovation Campus at the historic Walter Reed Army Medical Center site will be open to biotech, medical device, consumer and health technology start-ups aiming to develop new medicines, medical devices, precision diagnostics and health tech.

Members of the Board applauded Johnson & Johnson Innovation's efforts, especially in supporting local company growth and job creation. Dr. Perman thanked the JLABS team for its commitment to promoting pediatric research. The Board offered to serve as a resource and looks forward to building meaningful collaborations with JLABS.

Global Pandemic Prevention and Biodefense Center Update

Stu Solomon, President and CEO of Connected DMV gave a brief update on the Global Pandemic Prevention and Biodefense Center. The objective of the Center is help prevent future pandemics by:

- establishing a global pandemic prevention center;
- delivering initiatives, beginning with human monoclonal antibodies;
- accelerating solutions and create a "warm ready" stockpile;
- intermediating across industry, government, academia, and community;
- quickly capturing attention and resources while pandemics are a priority; and
- reinforcing Greater Washington as a global center.

This effort is moving into a strategy phase, with the goals of:

- finalizing funding and staffing;
- launching a global steering committee;
- confirming scope and functions;
- completing a feasibility study;
- developing an integrated operating model;
- establishing strategic partnerships;
- identifying pipelines of initiatives; and
- creating a delivery plan.

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University System of Maryland Pandemic Workshop Update
Dr. Locascio gave an update on the University System of Maryland Pandemic Workshops organized by the COVID Research and Innovation Task Force. The task force's mission is to leverage and mobilize system-wide research and innovation by engaging policy makers, business leaders and entrepreneurial community addressing the COVID-19 pandemic. Members of the task force have met with industry leaders, primarily through the Maryland Tech Council, as well as with Connected DMV and state government leadership. It also engaged the system's students, faculty and entrepreneurs developing solutions to respond to the pandemic.

One of the examples of this engagement is the successful app challenge to help find solutions for COVID-19, which awarded prizes in December. The students provided their best ideas to help battle COVID fatigue and to help communicate the importance of getting vaccinated. In addition, a COVID-19 accelerator program was established to help young companies launch their ideas to aid in the pandemic. Between Baltimore and College Park, the university awarded about $800,000 worth of seed grants to support new research projects.

The University of Maryland, Baltimore, the University of Maryland, College Park and the University of Maryland, Baltimore County held a workshop to discuss a collaborative and cohesive approach to pandemic preparedness. The workshop was a two-part series with approximately 100 participants, including community leaders. It focused on four areas:

1. Medical Countermeasures and Life Sciences (response to the rapid spread of disease, enhancements to diagnostics, countermeasures, telemedicine, etc.).
2. Business Impact and Economic Recovery (policies to respond to future pandemics, global supply chain vulnerabilities, sector-specific economic analysis, risks to business).
3. Pandemic Predicting and Tracking (monitoring and responding to potential disease, global spread, mobility, vaccine adoption).
4. Societal Impact, Community Health and Engagement (engagement of communities in containment strategies, tracking health disparities, reviewing risk communication strategies, analyzing mental health and education impact).

In the ensuing discussion, suggestions were made to connect to local community colleges as well as the Rockefeller Foundation as potential partners for some of these efforts.

LSAB-MTC Workforce Development Task Force Update and Next Steps
Dr. Sanchez and Mr. Stamper gave a short presentation updating the Board on the latest activities of the task force they co-lead. The Biotech Workforce Development Task Force is a joint effort

between the LSAB and the Maryland Technology Council that aims to address the workforce needs of a rapidly growing Maryland biomanufacturing cluster.

Data-gathering stage of the project has been completed. Questions asked focused on demand/supply needs and hiring practices required support the local biopharmaceutical industry. There is now sufficient data to conclude that the demand is increasing; that the early talent supply appears adequate; that the knowledge, skills, and abilities relevant to the industry are starting to be addressed; and that the hiring culture is skewed heavily towards 4+ year degree.

The task force concluded that the talent is not connecting with industry to meet the demand and industry is not connecting with talent to stimulate supply. The task force developed an opportunity statement: *Maryland has a robust supply of talent that can support the growing demand of the local biopharmaceutical industry. There is a need stimulate stronger interest in industry careers by deliberately engaging diverse talent and delivering a clear value proposition of job opportunities at all career levels.* The next stage will include idea-gathering for potential solutions that would be prioritized based on most pressing needs, available resources, and strategic partnerships.
In the discussion that followed, Board members urged the task force to continue to include the younger pipeline of middle and high school students in its discussions. Mr. Storey asked whether Dr. Perman would give the Board an update on the CURE program at the next meeting as an example. Mr. Olsen gave an example of a collaboration between the Baltimore City Community College and three local high schools. Ms. Perrow described a Duke University alumni network mentoring program focused on preparing graduates for careers in industry. Mr. Storey and others brought up the difficulties of finding talent due to the lack of central resource for companies who are hiring. Dr. Perman thanked Dr. Sanchez and Mr. Stamper for leading this important effort.

Closing Remarks
Dr. Perman thanked everyone for attending and actively participating in the meeting. The Board's next virtual meeting is scheduled for June 2, 2021, 2:00 p.m. – 4:00 p.m. Members wishing to submit items for the next meeting's agenda were asked to send them to Dr. Desiderio. Dr. Perman adjourned the meeting at 2:53 p.m.