



The Board of Regents Committee on Economic Development and Technology Commercialization

Minutes of the Public Session

June 4, 2020

The Committee on Economic Development and Technology Commercialization of the University System of Maryland (USM) Board of Regents met in public session at 12:30 pm on Thursday, June 4 2020 via audio and videoconference. Regent Leggett called the meeting to order at 12:35 pm.

Regents present were Regent Gooden, Regent Leggett, Regent Fish, Regent Malhotra, Regent Gossett, Regent Attman, and Regent Rauch. USM personnel included J. Perman, E. Herbst, D. Wilkerson, E. Langrill, J. Boughman, T. McDonough, T. Sadowski, and L. Ryan. Presenters were L. Locascio and J. Friedberg. Other in attendance included W. Naselsky, R. Hughen, M. Culligan, M. Morris, and J. Hahn.

Featured Innovator: UMB COVID Medical Device Challenge Grantee – Dr. Joe Friedberg, Head, Division of Thoracic Surgery (Information Item)

Dr. Friedberg explained his background, including the fact that he has multiple inventions. As a surgical resident on the transplant service toward the beginning of his career, using the abdomen essentially as a kidney was a common practice. He wondered if the same could be done using perfluorocarbons, which are safe and inert chemicals, to help the abdomen act as a lung. Since then, at various points in his career, this idea has moved forward. Now, COVID-19 patients appear to be particularly susceptible to damage from ventilators, which creates a vicious cycle as it creates the need for more intense ventilator use. So, Dr. Friedberg resolved to see if this alternative method could be deployed and set out to find medical-quality perfluorocarbons. Last week, he obtained 20L from a company in the UK, which is incredibly helpful and generous. A large, cross-disciplinary and cross-organizational group has come together to bring a new level of sophistication to the idea. It is one of the best collaborations that he has ever seen. A prototype of the device is being tested, and they are planning for animal experiments in the middle to end of July. They also received a National Science Foundation award to focus on making sure that it can not only add oxygen, but also clear carbon dioxide. Other funding applications are pending. UM Ventures funding made the final development of the prototype possible.

Chancellor Perman commented that in addition to the importance of the work itself, the project also shows what can be accomplished between collaboration between UMB and UMCP under the MPower initiative. He said that ten years ago, this would not be possible. Dr. Locascio is a symbol of that as the single vice president for research, and UM Ventures is also a testament to that as an MPower initiative.

Regent Leggett asked what additional funding could do to advance the project. Dr. Friedberg said that nothing would have been done differently at this point but going forward a lot of development still needs to be done. They are working with the urgency that the pandemic warrants. The first goal is to use the innovation under compassionate care to save lives. Long-term, there is a significant population of

people who could benefit from the innovation after much more refinement. The more resources that are available, the more people that can be working on different types of refinements in parallel.

Regent Attman commended Dr. Friedberg on not only being a wonderful practitioner but also excelling in research and innovation. He also commended the work across institutions and thanked Dr. Friedberg for being a leader. Regent Gossett said that seeing the list of team members was impressive, and that even 5 years ago a project like this may not have been possible.

COVID Research & Innovation Task Force – Laurie Locascio, Vice President for Research, University of Maryland (Information Item)

Dr. Locascio said the Task Force first met on April 23rd and has the overarching goal of showcasing how the universities have been coming together to make real impact during the coronavirus crisis. Dr. Locascio described the four pillars of the effort, leadership members, strategic mission, and commented that the group may be expanded as required going forward. Dr. Locascio thanked Vice Chancellor McDonough for his work in setting up the website. Dr. Locascio reviewed the research highlights. Research at the University of Maryland was used by the CDC to make the decision to require the wearing of masks. A new joint UMB UMCP seed grant competition has also just been launched as an MPower initiative. The app challenge was chosen first as a way to engage the entire USM community, from students to startups. Mr. Sadowski commented that the USM is grateful to the Alex. Brown Center at UMBC is contributing funding for the prizes.

Regent Leggett asked about involvement with federal agencies. Dr. Locascio said in terms of clinical work, many activities are NIH-funded. There is a large infusion of funding from the federal government, and they have looked at funding from all angles, from clinical to social. Regent Leggett said it looks like there is a lot of money coming out the door quickly. Dr. Locascio said that federal funding has already been obtained and that seed grants are targeted to get things up and running in order to apply to the opportunities as they become available.

Chancellor Perman said that we have all talked about System-ness for a long time, and he applauded Dr. Locascio's leadership in promoting System-ness.

Regent Malhotra said this is something we should be so proud of. He suggested having this presentation for the entire Board of Regents. Regent Gooden said that it can be added to a future meeting. Chancellor Perman said there has been a big media push. Vice Chancellor McDonough said they have had two op eds and great traffic on the website. Vice Chancellor Sadowski said Vice Chancellor Boughman shared it with constituents, and it has also been shared via TEDCO and the Maryland Tech Council.

USM Office of Economic Development Update – Tom Sadowski, Vice Chancellor for Economic Development (Information Item)

Vice Chancellor Sadowski highlighted three members of the startup community that received funding through the Department of Commerce in order to pivot their manufacturing to develop PPE.

Vice Chancellor Sadowski commented that the US EDA is providing COVID-related funding through the existing university center at the USM. He commented that vaccine development is one area of interest for other funding opportunities. He commented that the Maryland Tech Council has been a tremendous

resource, and their COVID Task Force will be virtually meeting with USM COVID Research & Innovation Task Force.

Vice Chancellor Sadowski commented on the addition of pathOtrak to the Momentum Fund portfolio. Vice Chancellor Sadowski also noted increased minority participation and investment. Regent Leggett asked about geographic distribution. Vice Chancellor Sadowski reviewed the map of portfolio companies and stated that it was comparable to other seed investments throughout the state of Maryland.

Vice Chancellor Sadowski reviewed the legislative updates.

Vice Chancellor Sadowski commented multiple USM institutions, including Frostburg University, will be involved in the Army Research Lab unmanned autonomous system effort. The USM Industry Partnerships Director has been assisting with Amazon and now will be building an inventory of other industry-university partnerships to effort expansion efforts. He commented that the Department of Commerce was very helpful in bringing the Flying Dog partnership to fruition, for which he is thankful.

Venture Development Director Lindsay Ryan presented preliminary strategic plan information.

Regent Leggett asked if there had been disruptions based on COVID that will undermine abilities to continue competitiveness and venture development activities. Vice Chancellor Sadowski said that research parks may have been a concern, but national partners say that they are not anticipating too much trouble. He also said that research being stalled has been harmful to some ventures.

Discussion was then directed at metrics required in new USM Strategic Plan. Regent Leggett mentioned job creation and retention. Sam Malhotra stressed need to determine what success looks like and the importance of measuring the right things in the right way. Vice Chancellor Sadowski offered to send out a survey to committee members to get their input on measures and strategic focus.

Chancellor Perman commented that USM has underperformed on return on investment for tech transfer activities and should be better on licensure and commercialization.

The meeting ended at 2:00pm.

Respectfully submitted,

Isiah Leggett, Chair
Committee on Economic Development
and Technology Commercialization