Board of Regents
Committee on Economic Development and Technology Commercialization

September 10, 2020
Virtual (public listen only access at 443-353-0686, Conference ID: 6656301)
Committee Members will be sent Zoom information

Public Session Agenda

(1) **Featured Innovator Panel: Three USM COVID App Challenge Winners and IBM Industry Partner & Judge** – Gregory Okhuereigbe, Undergraduate at TU; Kirubel Tolosa Graduate Student at UMBC; Andrew Karam, Undergraduate at UMCP; and John Joaquin, Managing Executive, IBM (Information Item)

(2) **Approval of Committee Charter** – Tom Sadowski, Vice Chancellor for Economic Development (Action Item)

(3) **USM Office of Economic Development Update** – Tom Sadowski, Vice Chancellor for Economic Development and Lindsay Ryan, Venture Development Director (Information Item)

   a. USM COVID Research & Innovation Task Force Updates
      i. Tech Accelerator Program
      ii. Maryland Pandemic Institute
   b. Momentum Fund
      i. Impact Summary
      ii. Earlier Stage Gap Funding
   c. Venture Development Report
   d. USM Strategic Plan
TOPIC: Featured Innovator Panel: COVID App Challenge Winners with Industry partner IBM

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: Thursday, September 10, 2020

SUMMARY: As an initiative of the USM COVID Research & Innovation Task Force, USM launches a USM COVID App Challenge. Participants were encouraged to design an app that could help bring Marylanders together to more effectively respond to COVID-19 and future pandemics. UMBC’s Alex. Brown Center supported cash prizes that were awarded to six winning teams, and IBM and AWS provided in-kind resources and also participated as judges. The six winning teams were selected:

- An-Tech; UMCP. Andrew Karam, undergraduate.
- ContactClassroom; Towson University; Jal Irani, lecturer.
- Corey: COVID Buddy; Towson University; Gregory Okhuereigbe, undergraduate.
- Follow-up; UMBC; Kirubel Tolosa, Pradeep Margasahayam Prakash, and Raghav Deivachilai, graduate students.
- Snuggrub; UMBC; Emily Sullivan and Dominic Crofoot, undergraduates.
- Team Breeze; University of Baltimore; Stephanie Parey, graduate student; Michael Vandi, undergraduate; Olubukola Akanbi, doctoral student; Charles Chase, undergraduate.

Several winners will reflect on the experience and share their future plans: Gregory Okhuereigbe, Undergraduate at TU; Kirubel Tolosa Graduate Student at UMBC; Andrew Karam, Undergraduate at UMCP.

John Joaquin, Managing Executive at IBM, an App Challenge sponsor will reflect on the experience of partnering with the USM and support/engagement with winners going forward.

ALTERNATIVE(S): This item is for information purposes.

FISCAL IMPACT: There is no fiscal impact

CHANCELLOR’S RECOMMENDATION: n/a

COMMITTEE RECOMMENDATION: 

BOARD ACTION: 

SUBMITTED BY: Tom Sadowski (410) 576-5742
USM COVID App Challenge

Winning Teams Presenting to EDTC

- **An-Tech; UMCP**
  Andrew Karam, undergraduate. This application is a versatile software that utilizes an infrared external sensor to accurately pinpoint a person's facial structure from a distance to detect their overall temperature. The program is easily accessible and user-friendly.

- **Corey: COVID Buddy; Towson University**
  Gregory Okhuereigbe, undergraduate. Corey: COVID Buddy is a powerful mobile "assistant" application that helps users conduct coronavirus self-assessments based on information from the Centers for Disease Control and Prevention (CDC), tracks symptom severity progression/regression, creates anxiety reduction strategies, and provides answers, personalized tips, and recommendations relating to COVID-19.

- **Follow-up; UMBC**
  Kirubel Tolosa, Pradeep Margasahayam Prakash, and Raghav Deivachilai, graduate students. The application tracks the health condition of COVID-19 patients in isolation, informing them of the progress of their health condition and enabling medical providers to make categorical follow-up on patients.
USM COVID App Challenge

Other Winning Teams

- **ContactClassroom; Towson University**
  Jal Irani, lecturer. ContactClassroom is a set-it-and-forget-it iOS application to aide in COVID-19 safety and transparency when returning to campus. It is designed for students, faculty, and staff to see a heatmap of campus traffic, risk ratings and occupancy of buildings, and to receive suggestions using machine learning for how to stay safe based on campus data.

- **Snuggrub; UMBC**
  Emily Sullivan and Dominic Crofoot, undergraduates. Snuggrub will search one's local area for COVID-related restaurant changes and instructions, offering a convenience to the user by assembling the information and eliminating the need to contact an individual dining establishment. With this app, a user can eat out and dine in safely by staying informed with real-time changes from one's favorite restaurant.

- **Team Breeze; University of Baltimore**
  Stephanie Parey, graduate student; Michael Vandi, undergraduate; Olubukola Akanbi, doctoral student; Charles Chase, undergraduate. This application is a CIAT, or COVID-19 Information and Tracker. The application uses Bluetooth technology to track users' locations to limit the spread of COVID-19 and give them important information and updates regarding their specific location.
TOPIC: Amendment to Committee Charter

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: Thursday, September 10, 2020

SUMMARY: The Economic Development and Technology Commercialization Committee charter is described in the USM Board of Regents Bylaws, excerpted with suggested revisions below: Section 9. Committee on Economic Development and Technology Commercialization.
A. The Committee on Economic Development and Technology Commercialization shall consider and report to the Board how the University System can best utilize its resources to promote the economic development of the State.
B. This Committee shall develop strategies and recommend policies to the Board to strengthen links between the University System and its constituent institutions and business, government, and local communities to encourage economic development across Maryland.
C. In carrying out its charge, this Committee shall consider issues, resources, and policies related to economic development, including, but not limited to: research, technology transfer, workforce development, and accountability innovation and entrepreneurship.
D. This Committee shall also consider other related matters that may be brought to its attention by the Chancellor or Vice Chancellor or referred to it by the Board.
E. Notwithstanding Article IX, Section 10.A. of these bylaws, this Committee shall meet as necessary to accomplish its business.

ALTERNATIVE(S): This item is for information purposes.

FISCAL IMPACT: There is no fiscal impact

CHANCELLOR’S RECOMMENDATION: n/a

COMMITTEE RECOMMENDATION: DATE:

BOARD ACTION: DATE:

SUBMITTED BY: Tom Sadowski (410) 576-5742
PREAMBLE

Pursuant to the powers vested in the Board of Regents of the University System of Maryland, as provided by law, the following is hereby adopted and declared as the bylaws of the Board of Regents of the University System of Maryland.

ARTICLE I
CORPORATE NAME, PURPOSE, AND POWERS

Section 1. The Board of Regents (hereafter "the Board") is the body established by statute and charged with responsibility for the governance and management of the University System of Maryland (hereafter "the University System") and all constituent institutions, centers, and institutes thereof.

Section 2. The University System of Maryland is a body corporate and politic, an instrumentality of the State, a public corporation, and an independent unit of State government.

Section 3. In addition to any other powers granted and duties imposed by Title 12 of the Education Article, Maryland Annotated Code, and subject to the provisions of Title 11 of that Article pertaining to the Maryland Higher Education Commission, and subject to any other restriction expressly imposed by law or by any trust agreement involving a pledge of property or money, the Board is responsible for the management of the University System and has all the powers, rights, and privileges that go with that responsibility, including the power to conduct or maintain any institutions, centers, schools, or departments in the University System at the locations the Board determines. As provided by statute, the Board may not be superseded in its authority by any other State agency or office in managing the affairs of the University System or of any constituent
institutions and centers under the Board's jurisdiction. In addition, the Board has all the powers granted a Maryland corporation which are not expressly limited by law, as well as all powers conferred on it by the Act of Incorporation of the Maryland College of Agriculture, the Charter of the University of Maryland and the charter of any constituent institution.

Section 4. Subject to Article IX, Section 8 of these bylaws, the Board may make rules and regulations, and prescribe policies and procedures, for the management, maintenance, operation, and control of the University System.

Section 5. Except with respect to changing the name of any institution, establishing any new institution or branch or center or institute, merging, consolidating or closing any institution or center or institute, and selling or exchanging real property, the Board may delegate any part of its authority over the affairs of the constituent institutions and centers to the Chancellor or the Presidents, or to any advisory bodies the Board establishes pursuant to statute. The Board shall delegate to the president of each constituent institution authority needed to manage the institution to the extent such authority is not granted to the presidents in Maryland Ann. Code, Educ. § 12-109. The Board may modify or rescind at any time, in whole or in part, any delegation of authority not mandated by statute.

ARTICLE II
OFFICERS OF THE BOARD

Section 1. The officers of the Board shall be a Chairperson, a Vice Chairperson, a Secretary, an Assistant Secretary, a Treasurer, and an Assistant Treasurer. Additional officers deemed necessary or essential to the operation of the University System may be established by the Board at any time.

Section 2. The officers of the Board shall be elected at the election meeting of the Board by the majority vote of the members of the Board participating in and eligible to vote at such election meeting. They shall hold offices commencing January 1, and continuing until their successors are elected at the next election meeting and take office on the January 1 following such election. The person elected as Chairperson of the Board shall serve in that position subject to the advice and consent of the Senate; a Chairperson who has been confirmed by the Senate is not subject again to the advice and consent of the Senate during the period of continuous service as Chairperson.

Section 3. Vacancies in any office shall be filled by the Board by the majority vote of the members of the Board participating in and eligible to vote at the meeting at which such vote is held. Officers elected to fill vacancies shall serve until their successors are elected at the next election meeting and take office on January 1 following such election.

ARTICLE III
DUTIES OF OFFICERS

Section 1. Chairperson. The Chairperson is authorized to represent the Board before all public bodies, to preside at the meetings of the Board, to sign on behalf of the Board papers authorized by the Board or as required by law, and to perform such other duties as the Board may from time to time assign.
Section 2. Vice Chairperson. At the request of or in the absence or disability of the Chairperson, the Vice Chairperson shall perform all of the duties of the Chairperson and, while so acting, shall have all of the powers and authority of the Chairperson. In addition, the Vice Chairperson shall perform such other duties as from time to time may be assigned by the Board.

Section 3. Secretary. The Secretary shall approve a record of the proceedings of all meetings of the Board and its committees. The official records of the Board shall be maintained in the Chancellor's Office, or at such other location as the Board may from time to time determine the Secretary shall perform such other duties as from time to time may be assigned by the Board or by the Board Chairperson.

Section 4. Assistant Secretary. The Assistant Secretary shall, in the absence of the Secretary, perform the duties of the Secretary, and such other duties as may be assigned by the Board.

Section 5. Treasurer. The duties of the Treasurer shall be such as may be assigned by the Board.

Section 6. Assistant Treasurer. The Assistant Treasurer shall, in the absence of the Treasurer, perform the duties of the Treasurer, and such other duties as may be assigned by the Board.

ARTICLE IV
THE CHIEF EXECUTIVE OFFICER OF THE UNIVERSITY SYSTEM OF MARYLAND
AND CHIEF OF STAFF TO THE BOARD OF REGENTS

Section 1. After a thorough search, the Board shall appoint a qualified person as Chancellor of the University System.

Section 2. The Chancellor is the Chief Executive Officer of the University System and the Chief of Staff for the Board.

Section 3. The Chancellor serves at the pleasure of the Board and is entitled to the compensation established by the Board, subject to Section 7 below.

Section 4. The Chancellor shall advise the Board on System-wide policy; conduct System-wide planning; coordinate and arbitrate among the institutions and centers of the University System; assist the institutions in achieving performance goals in accordance with their adopted performance accountability plans; provide technical assistance to institutions and centers such as legal and financial services; perform the duties the Board assigns and that are required by Title 12 of the Education Article, Maryland Annotated Code; and see that the policies of the Board are carried out.

Section 5. The Chancellor, in carrying out the duties assigned, shall be the Chief Executive Officer of the System Office. Subject to the authority and applicable regulations and policies of the Board, the Chancellor shall appoint, promote, fix salaries, grant tenure, assign duties and terminate personnel in the System Office and other components not included in constituent institutions.

Section 6. Upon written confirmation by a constituent institution that the president has been reviewed and is recommended for tenure as a member of the faculty in accordance with the institution’s tenure review policies and procedures, the Chancellor may grant final tenure approval.
Section 7. Through June 30, 2021, the Board shall notify the Governor, the President of the Senate, and the Speaker of the House at least 30 days before the effective date of any contractual salary increase, negotiated severance, or any other financial bonus for the Chancellor.

ARTICLE V
CHIEF EXECUTIVE OFFICERS OF INSTITUTIONS

Section 1. In consultation with the Chancellor and after a thorough search, the Board shall appoint a qualified person as President of each constituent institution. The Board shall approve the membership of any search committee convened to recommend to the Board a qualified person as President of a constituent institution.

Section 2. The President of each constituent institution serves at the pleasure of the Board and is entitled to the compensation established by the Board.

Section 3. The President of each constituent institution shall serve as the Chief Executive Officer of the institution; is responsible and accountable to the Board for the discipline and successful conduct of the institution and supervision of each of its departments; and shall take every initiative in:

A. Implementing policies of the Board and the institution, and
B. Promoting the institution's development and efficiency.

Section 4. Subject to the authority and applicable regulations and policies of the Board, the President of each constituent institution shall:

A. Develop a plan of institutional mission, goals, priorities, and a set of peer institutions in accordance with Subtitle 3 of Title 11 of the Education Article, Maryland Annotated Code;
B. Have the authority to develop new academic programs and curtail or eliminate existing programs;
C. Formulate operating and capital budget requests;
D. Appoint, promote, fix salaries, grant tenure, assign duties, and terminate personnel;
E. Have the authority to create any position within existing funds available to the University, to the extent the cost of the position, including the cost of any fringe benefits, is funded from existing funds;
F. Establish admission standards;
G. Set tuition and fees;
H. Administer financial aid;
I. Enter into contracts and cooperative agreements;
J. Have the authority to accept gifts and grants and maintain and manage endowment income;
K. Have the authority to recommend change in the name or status of the institution;
L. Regulate and administer athletic and student activities;

M. In compliance with State, federal, and Board mandates and policies, oversee affirmative action and equal employment opportunities;

N. Establish organizations for the administration of campus alumni affairs;

O. Be responsible for all academic matters;

P. Have the authority to establish and appoint an institutional board to:
   1. Provide advice to the President;
   2. Assist in community relations;
   3. Assist in institutional development; or
   4. Provide any other assistance requested by the President;

Q. Establish traffic regulations for the campus;

R. Designate one or more representatives to participate as a party in collective bargaining on behalf of the institution in accordance with Title 3 of the State Personnel and Pensions Article, Maryland Annotated Code; and

S. Perform any other duties assigned by the Board.

ARTICLE VI
COUNCILS

Section 1. The Board shall establish a Council of University System Presidents, a Council of University System Faculty, a Council of University System Staff, and a University System of Maryland Student Council.

Section 2. These Councils shall serve in an advisory capacity to the Chancellor and may, from time to time, make reports and recommendations to the Board.

Section 3. The Board may appoint advisory committees to advise it in exercising its authority. The Board may, by resolution approved by majority vote of the members of the Board who are participating and eligible to vote at any regular meeting, appoint advisory committees to advise it in exercising its authority, provided, however, that for each such committee the enabling resolution shall describe the committee's responsibility and shall specify a life for the committee. The life of the advisory committee shall not exceed one year, unless renewed for a specific period by subsequent resolution of the Board.

Section 4. The Council of University System Faculty (CUSF) shall designate a Faculty Advisor to the Board of Regents. The Faculty Advisor will serve a one-year term beginning with the annual meeting of the Board. The Faculty Advisor may attend and participate in open meetings of the Board and its committees and closed sessions of the Board and its committees which are open to all the System Presidents, provided that the Regents may vote to exclude the Faculty Advisor from any closed session. At such meetings as the Faculty Advisor attends, the Faculty Advisor will be afforded the
same opportunity to participate in any discussion as is afforded Presidents. The Faculty Advisor may not attend those closed sessions of the Board which are not open to all the System Presidents. The Faculty Advisor may not vote on any matter voted upon by the Regents.

Section 5. The Council of University System Staff (CUSS) shall designate a Staff Advisor to the Board of Regents. The Staff Advisor will serve a one-year term beginning with the annual meeting of the Board. The Staff Advisor may attend and participate in open meetings of the Board and its committees and closed sessions of the Board and its committees which are open to all the System Presidents, provided that the Regents may vote to exclude the Staff Advisor from any closed session. At such meetings as the Staff Advisor attends, the Staff Advisor will be afforded the same opportunity to participate in any discussion as is afforded Presidents. The Staff Advisor may not attend those closed sessions of the Board which are not open to all the System Presidents. The Staff Advisor may not vote on any matter voted upon by the Regents.

ARTICLE VII
DUTIES AND RESPONSIBILITIES OF THE BOARD OF REGENTS

Section 1. The Board shall approve and adopt a System-wide plan of higher education which shall provide through its various campuses and programs a continuum of educational services including undergraduate education, graduate education, professional programs, and research to achieve and sustain national eminence, with each component fulfilling a distinct and complementary mission, as provided by Titles 10 and 12 of the Education Article, Maryland Annotated Code.

Section 2. The Board shall review, approve and adopt individually, and on a System-wide basis, mission statements of each constituent institution to assure that:

A. They are consistent with the Maryland Charter for Higher Education and the System-wide plan;

B. They will promote the effective and efficient use of each institution's and the System's resources; and the Board shall consolidate the statements into an adopted System-wide statement to be presented to the Maryland Higher Education Commission for approval.

Section 3. The Board shall review, approve, and adopt a performance accountability plan for each constituent institution in accordance with the provisions of Title 12 of the Education Article, Maryland Annotated Code; shall annually receive and review from the President of each constituent institution a written report on the attainment by the institution of the objectives in the performance accountability plan of the institution; shall submit the report to the Maryland Higher Education Commission; and shall hold each President accountable for meeting the objectives of the performance accountability plan.

Section 4. In consultation with the institutions and the Chancellor, the Board shall establish standards for funding based on differences in the size and mission of the constituent institutions; review, modify as necessary, and approve consolidated budget requests for appropriations for the University System with respect to:

A. The operating budget, and

B. The capital budget;
and submit these requests for appropriations organized by constituent institutions to the Commission, Governor, and General Assembly.

Section 5. The Board shall review the annual financial disclosure statements filed in accordance with Section 5-607 of the General Provisions Article, Maryland Annotated Code, by the Chancellor and the Presidents.

Section 6. The Board shall provide each member appointed to the Board, at the time of appointment and at reasonable intervals, with education and training on the Board’s governance policies, fiduciary responsibilities, legal obligations, oversight of personnel policies, oversight of constituent institutions, and other responsibilities.

Section 7. The Board shall approve the membership of any search committee convened to recommend to the Board a qualified person as president of a constituent institution.

Section 8. The Board shall perform and carry out as required all of the mandates and provisions as contained in the Education Article, Maryland Annotated Code.

ARTICLE VIII
STUDENT REGENTS

Section 1. There shall be two Student Regents, each of whom shall, while serving as a student regent, be a full-time student in good academic standing at an institution under the jurisdiction of the Board. A student regent who, while serving as a student regent, is enrolled at the University of Maryland Global Campus and who is in good academic standing shall be exempt from the full-time requirement of the preceding sentence.

Section 2. A new Student Regent shall be appointed July 1 of each year, and shall serve for a term of two years from such appointment. A student regent who meets the requirements of Section 1 of this Article VIII may be reappointed as a Student Regent. Student Regents shall be appointed by the Governor, with the advice and consent of the Senate during the legislative session following appointment.

Section 3. Only one of the two Student Regents shall have the authority to vote. A Student Regent shall be a voting member of the Board for only one year of a two-year term. Generally, the first year of a Student Regent’s two-year term shall be in a non-voting capacity, and the second year of the term shall be in a voting capacity. The Board, however, may deviate from this practice by vote of a majority of the members of the Board who are participating and eligible to vote at the meeting at which such vote is taken, provided that such action does not strip a qualified, voting Student Regent of the authority to vote.

Section 4. A Student Regent’s appointment shall automatically terminate if the individual no longer meets the requirements of Section 1 of this Article VIII.

ARTICLE IX
BOARD MEETINGS

Section 1. Regular Meetings. The Board shall hold at least six regular meetings during each fiscal year ending June 30, at such time and place as the Board may determine. One of the regular meetings
shall be held during the month of June and shall be designated as the annual meeting, at which time the Chancellor shall make an annual report, and the Chairperson shall present a schedule of the time and place of regular meetings for the ensuing year for approval by the vote of a majority of the members of the Board who are participating in the annual meeting and eligible to vote at such meeting. One of the regular meetings shall be held during the month of December and shall be designated as the election meeting, at which time officers of the Board shall be elected by vote of a majority of the members of the Board who are participating in the meeting and who are eligible to vote at such meeting. Except in an emergency, as determined by the Chairperson, the date of the annual meeting, the election meeting and other regular meetings may be changed only by majority vote of the members of the Board who are participating in the meeting and who are eligible to vote at such meeting. In the event of an emergency, as determined by the Chairperson, the Chairperson shall designate a new date for the annual meeting, the election meeting, and other regular meetings.

Section 2. Location of Meetings. The Board shall hold its regular meetings at the constituent institutions within the System to the extent feasible and appropriate. The Chairperson, in consultation with the Chancellor, shall designate the location of each meeting of the Board for the coming fiscal year.

Section 3. Meeting Agenda. An agenda for the Annual Meeting and for regular meetings of the Board shall be prepared by the Chancellor in accordance with directions of the Board Chairperson and shall be sent by the Chancellor to each member of the Board at least seven days in advance of each meeting. Discussions and actions by the Board shall not, however, be limited to the items included on the agenda but may include any business not inconsistent with applicable law and the bylaws and within the duties and powers of the Board.

Section 4. Special Meetings and Regular Meetings During Emergency Situations. The Board shall hold special meetings upon the call of the Chairperson. The Chairperson may call a special meeting at his/her initiative or in response to the written request of six voting members of the Board at any time. Five days’ notice of any special meeting shall be given to all Board members, except when the Chairperson determines that special circumstances warrant a shorter notice. At special meetings, only matters covered in the notice to members may be transacted. Special meetings and regular meetings scheduled to take place during extreme weather, public health, or similar emergencies, may be conducted by telephone or video conferencing, provided that all participating Regents deliberate collectively, each in the hearing of every other Regent and others in attendance at the meeting, and all legal requirements for such meeting are met, including those set forth in Sections 9 and 10 of this Article. Individual Regents may participate in a Board meeting through such means, and such participating Regents as are eligible to vote shall be counted for quorum purposes and their votes shall be counted when determining the actions of the Board.

Section 5. Quorum. A quorum for any meeting of the Board shall consist of a majority of voting members of the Board. No formal action may be taken by the Board without the approval of a majority of the members of the Board who are participating in the meeting and who are eligible to vote at such meeting. Regents may monitor Board meetings by telephone but may not be counted for quorum purposes and they shall not vote on actions of the Board, except as otherwise provided in Section 4 of this Article.
Section 6. Addressing the Board. Each open meeting of the Board shall allow reasonable time for public comment. The Board will establish a protocol for advance sign up by persons who wish to comment at an open meeting of the Board, limits on time for an individual’s comments, and overall limit on the time for all public comments; any aspect of the protocol may be waived by the Board provided that such waiver shall still permit the efficient conduct of the Board meeting. The Council of University System Presidents, the Council of University System Faculty, the Council of University System Staff and the University System of Maryland Student Council may, from time to time, make reports and recommendations to the Board.

Section 7. Notice of Meetings. Notice of regular meetings of the Board shall be given to State officials as required by Section 12-103 of the Education Article, Maryland Annotated Code, and to other appropriate State officials, and to the public as permitted by Section 3-302 of the General Provisions Article, Maryland Annotated Code and shall be available, on request, in the Office of the Chancellor. As officers of the University System, the Chancellor and each President and major unit heads shall be invited to be present at all open meetings of the Board and its Committees. The Chancellor shall give notice to such other persons as the Chancellor may deem appropriate.

Section 8. Open Meetings. All Board meetings shall be conducted in accordance with Title 3 of the General Provisions Article, Maryland Annotated Code.

Section 9. Live Streaming. All open meetings of the Board shall be made available to the public by live and archived video streaming.

Section 10. Motions and Vote Tallies. The Board shall include all motions and vote tallies from open and closed sessions in Board minutes that are made publicly available in accordance with Title 3 of the General Provisions Article, Maryland Annotated Code.

ARTICLE X
BOARD COMMITTEES

Section 1. Standing Committees of the Board. The Standing Committees of the Board are the Committee on Audit, the Committee on Education Policy and Student Life, the Committee on Finance, the Committee of the Whole, the Committee on Governance and Compensation, the Committee on Advancement, and the Committee on Economic Development and Technology Commercialization.

Section 2. Appointment of Standing Committee Members, Chairpersons, and Vice Chairpersons. Subject to the provisions of Section 6 of this Article, the Chairperson of the Board, at the election meeting of the Board or as soon thereafter as practicable, shall, after consulting with the members of the Board, appoint members to each of the Standing Committees for the coming year. In addition, the Chairperson of the Board shall designate the Chairperson and the Vice Chairperson of each Standing Committee. In making such appointments, the Chairperson shall determine the number of members on each Standing Committee. In case of a vacancy on a Committee, the Chairperson of the Board may appoint a new member for the unexpired term. Each Committee member shall serve at the pleasure of the Board Chairperson. The Chairperson of the Board shall be an ex officio, voting member of all Standing Committees.
Section 3. Committee on Audit.

A. The Committee on Audit shall render advice and assistance to the Board in fulfilling its fiduciary responsibilities for overseeing adequacy of and compliance with the internal controls of the University System and the sufficiency and appropriateness of its financial reporting.

B. This Committee shall review independent audit proposals including the scope of examination, services to be provided, reports to be rendered and fees to be charged, recommend to the Board the selection and scope of work of the independent external auditor of the University System, review findings received there from and provide the Board with appropriate reports.

C. This Committee shall review legislative audits of the institutions of the University System and institutional responses thereto, and provide the Board with appropriate reports.

D. This Committee shall review and recommend to the Board the scope of the internal audit function. The Committee shall review the Charter of the Office of Internal Audit, its annual plan of work, its reports and administrative actions taken regarding its recommendations, and its annual report of significant audit items, and shall provide the Board with appropriate reports on the activities of that office.

E. In fulfillment of these responsibilities this Committee shall foster direct communications with the external auditors on an annual basis or as otherwise deemed appropriate, and shall assure direct access from the Office of the Internal Auditor, including meeting privately, at least on an annual basis, with the Director of Internal Audit.

F. This Committee shall monitor the Board's observance of the Maryland Public Ethics Law as it pertains to possible conflict of interest with matters of the University System.

G. This Committee shall assist the Board in fulfilling its responsibility to comply with Md. Education Code Ann. Section 12-1-4(p) review of annual financial disclosure statements—The Board of Regents shall review the annual financial disclosure statements filed by the Chancellor and the presidents of each constituent institution in accordance with Section 5-607 of the General Provisions Article.

H. The Committee shall review the annual financial disclosure statements filed by the members of the Board of Regents in accordance with Section 5-607 of the General Provisions Article.

I. The Committee shall render advice and assistance to the Board of Regents in fulfilling its responsibilities for overseeing the sufficiency and adequacy of Enterprise Risk Management of the University System of Maryland as defined in BOR Policy - VIII-20.00 Policy on Enterprise Risk Management.

Section 4. Committee on Education Policy and Student Life.
A. The Committee on Education Policy and Student Life shall consider all matters relating to education policies and programs for all institutions and major units, and all issues relating to academic programs such as curriculum development, adequacy of instructional facilities and institutional support for student academic services.

B. This Committee shall consider proposals for new programs and then refer to the Board.

C. This Committee shall also consider matters relating to faculty, including but not limited to conditions affecting recruitment and retention, and issues brought to the Advisory Councils.

D. This Committee shall also consider matters and policies related to students such as student recruitment, student support services, financial aid, campus safety and security, transfer and articulation, and extracurricular activities including athletics.

E. This Committee shall also consider matters and policies on inter-institutional cooperation, System-wide activities, collaboration with affiliated organizations, and alumni engagement.

F. On all matters provided for in paragraphs A, C, D and E, this Committee shall report to the Board and make recommendations as appropriate.

G. This Committee shall also consider related matters brought to it by the Chancellor or the Board.

Section 5. Committee on Finance.

A. The Committee on Finance shall consider and report or recommend to the Board on all matters related to financial affairs (including affiliated foundations and alumni associations). The Committee shall consider and recommend the annual operating and capital budgets and amendments thereto. The Committee shall also consider and recommend compensation policies for all staff.

B. This Committee shall consider and report or recommend to the Board on matters pertaining but not limited to purchase and sale of real estate, the need for capital improvements, site planning and landscaping, construction, operation and maintenance of the physical plant, the care and presentation of all furnishings, equipment and other such matters relating to buildings and grounds of the University System as may come before it.

C. This Committee shall have responsibility for reviewing the annual contract, and any amendments thereto, between the University System and the University of Maryland Medical System Corporation, as developed by the President of the University of Maryland, Baltimore and the Chancellor of the University System, and shall recommend appropriate action to the Board, which may include procedures for annual review and adoption of the contract.

D. This Committee shall have the responsibility for reviewing and recommending to the Board appropriate action with respect to those requests by the University of Maryland Medical System Corporation for grants from the State which have been provided by the University of Maryland Medical System Corporation to the Board for approval in accordance with Section 13-303(i) of the Education Article, Maryland Annotated Code.
E. This Committee shall receive reports and recommendations from the University System investment advisor and investment manager and provide recommendations to the Board regarding the endowment policies of the University System.

Section 6. Committee of the Whole.

The Committee of the Whole shall consist of all members of the Board. The Chairperson shall preside at meetings of the Committee of the Whole. The purpose of such meetings is to provide an informal forum for members of the Board to engage in dialogue, as well as to provide an opportunity for open discussion and recommendations on major questions and issues. Agenda items from members of the Board may be submitted to the Chairperson in advance or may be introduced by members of the Board at meetings of the Committee. The prepared agenda shall be limited to matters of major significance and those not appropriate for other Standing Committees. When the Board meets as the Committee of the Whole, the requirements of Article IX, Sections 6 through 10 must be met.

Section 7. Committee on Governance and Compensation.

A. The Committee shall consider and recommend to the Board on all matters pertaining to the performance and compensation of the Chancellor and System Presidents. The Committee considers and reports to the Board on matters requiring the attention of the Board concerning the governance, organization and structure of the University System, its constituent institutions and centers, and the System Office.

B. The Committee shall have the responsibility regarding matters that arise pertaining to strategic reassessments of the governance, organizational structure and leadership structure of the University System and its institutions and centers, reporting on these to the Board, and forwarding recommendations for changes as needed or desired. The Committee shall also consider any recommendations for major changes in governance, organizational or leadership structure which are forwarded by the Chancellor for the Board's consideration.

C. The Committee shall have responsibility for overseeing the annual performance evaluation of the Chancellor, for discussing this evaluation with the Chancellor and for reporting the evaluation to the Board. The Committee shall also have the responsibility for recommending annually to the Board the compensation package of the Chancellor.

D. The Committee shall discuss with the Chancellor her/his performance evaluation of each institutional president, and each Vice Chancellor, and her/his consequent recommendations for compensation actions. Based on this discussion, the Committee shall consider and recommend to the Board annual compensation packages for each of these individuals.

E. In the event that a vacancy occurs in a presidential position, on the recommendation of the Chancellor, the Committee shall recommend to the Board the appointment of an individual to serve in an acting or interim capacity until such time as the Board makes a permanent appointment. The Committee shall recommend all compensation actions for the acting or interim appointment to the full Board.
F. In the event that the Chancellor's position becomes vacant, the Committee shall recommend to the Board the appointment of and an appropriate compensation package for an Acting or Interim Chancellor.

G. The Committee shall review, monitor, and implement processes and procedures for the Board’s optimal performance. The Committee is also responsible for development and implementing periodic assessment of the Board’s activities.

Section 8. Committee on Advancement.

A. The Committee on Advancement shall consider and report to the Board on all matters relating to private fundraising efforts by the System and System institutions, including policies, strategies, best practices and national standards affecting capital campaigns and ongoing fundraising programs.

B. This Committee shall review institutional and System-wide efforts and make recommendations to the Board regarding the enhancement of System interests through entrepreneurial and private fundraising activities, including gifts, donations, bequests, endowment, grants, venture, cooperative agreements, and other public-private opportunities.

C. This Committee shall consider and report to the Board on all matters relating to System-affiliated foundations, alumni associations and certain other 501(c)(3) organizations affiliated with the USM.

Section 9. Committee on Economic Development and Technology Commercialization.

A. The Committee on Economic Development and Technology Commercialization shall consider and report to the Board how the University System can best utilize its resources to promote the economic development of the State.

B. This Committee shall develop strategies and recommend policies to the Board to strengthen links between the University System and its constituent institutions and business, government, and local communities to encourage economic development across Maryland.

C. In carrying out its charge, this Committee shall consider issues, resources, and policies related to economic development, including, but not limited to: research, technology transfer, workforce development, and accountability.

D. This Committee shall also consider other related matters that may be brought to its attention by the Chancellor or Vice Chancellor or referred to it by the Board.

E. Notwithstanding Article IX, Section 10.A. of these bylaws, this Committee shall meet as necessary to accomplish its business.

Section 10. Meetings of Standing Committees.

A. Standing Committee Chairpersons (except Chairperson of the Committee of the Whole) should schedule regular meetings in advance of each regular meeting of the Board. Such regular Standing Committee meetings shall be called by the Chancellor at the request of the Committee Chairperson. A majority of the voting members of a Standing Committee may
request the Chairperson of the committee to call a special meeting of the Committee. The Chairperson, upon receipt of such a request, or at his own initiative, shall have the Chancellor call a special meeting.

B. Calls for meetings of Standing Committees shall be in writing and, along with an agenda and such other materials as may be appropriate which the Chancellor shall prepare in consultation with the Committee Chairperson, shall be sent to each member of the Committee at least five days before the scheduled date of the meeting.

C. Emergency meetings of any Standing Committee may be called at any time by the Chairperson of the Board or by the Chancellor, who shall designate the time and place for such meetings. The call notice required in paragraphs A and B above shall not be applicable to the call for emergency meetings.

D. All meetings of the Standing Committees created by these bylaws shall be conducted in accordance with Title 3 of the General Provisions Article, Maryland Annotated Code. E. Regents who are members of a Standing Committee may participate in meetings of such Committee by telephone or video conferencing, provided that all participating Regents deliberate collectively, each in the hearing of every other Regent and others in attendance at the meeting. If such Regents are voting members, they shall be counted for quorum purposes and their votes shall be counted when determining the actions of the Committee.

Section 11. Authority of Committees. Unless otherwise specifically delegated by appropriate resolution or policy of the Board, authority to act on all matters is reserved to the Board, and the duty of each Standing or Special Committee shall be only to consider and to report or recommend to the Board on appropriate matters. In cases where specific power or authority to act is granted, a report of final action by any Committee shall be made at the next regular meeting of the Board and, if confirmation is required, shall be confirmed and approved by the Board at that time. Any grant to a Committee of authority or power to commit the Board shall be reviewed by the Board at the annual meeting each year, at which time it may be modified or rescinded by a majority vote of the members of the Board who are participating and who are eligible to vote at such meeting.

ARTICLE XI
TASK FORCES AND WORKGROUPS

Section 1. Members and Chairpersons of such task forces and workgroups as may be authorized from time to time by the Chairperson of the Board to work on specified matters shall be appointed by the Chairperson of the Board. Such appointments shall not exceed one year but may be renewed by the Chairperson of the Board for additional periods not to exceed one year. Meetings of each task force or workgroups shall be called by the group’s Chairperson, and conduct meetings as determined by such Chairperson.

ARTICLE XII
AMENDMENTS TO THE BYLAWS

Section 1. These bylaws may be amended by majority vote of the members of the Board who are participating at any regular meeting and who are eligible to vote at such meeting, provided the
proposed amendment or amendments have been sent to each member at least seven days before the meeting.

ARTICLE XIII
ROBERT'S RULES OF ORDER NEWLY REVISED

Section 1. The rules contained in Robert's Rules of Order Newly Revised shall govern this Board where not inconsistent with the bylaws of the Board.

ARTICLE XIV
REPEAL OF INCONSISTENT PROVISIONS

Section 1. These bylaws shall be effective as of July 1, 2019 and shall supersede and replace any bylaws adopted prior to July 1, 1988 by the former Board of Regents of the University of Maryland and the former Board of Trustees of the State Universities and Colleges, and any related regulations or policies of such former Boards to the extent inconsistent herewith.
TOPIC: USM Office of Economic Development Update

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: Thursday, September 10, 2020

SUMMARY: Vice Chancellor Sadowski will provide an overview of the office’s guiding principles going forward, an update of the USM COVID Research & Innovation Task Force’s efforts including a Tech Accelerator Program and Maryland Pandemic Institute. Then, he will provide an update on the USM Maryland Momentum Fund’s impact and opportunities to support ventures at an earlier stage. Venture Development Director Lindsay Ryan will provide the most recent Venture Development Report. Finally, the most recent version of EDTC-related elements of the USM Strategic Plan under development will be presented by Vice Chancellor Sadowski and Ms. Ryan.

ALTERNATIVE(S): This item is for information purposes.

FISCAL IMPACT: There is no fiscal impact

CHANCELLOR’S RECOMMENDATION: n/a

COMMITTEE RECOMMENDATION: DATE:

BOARD ACTION: DATE:

SUBMITTED BY: Tom Sadowski (410) 576-5742
USM Economic Development

*Briefing for Regents Committee for Economic Development Tech Commercialization*

September 10, 2020
USM Economic Development

*Guiding Principles … COVID and Beyond*

1. Enhance USM Innovation Infrastructure in partnership with Industry and Federal Government
2. Expand Venture Development Effort and associated ROI focusing on “Earlier-Stage” Pipeline
3. Bolster Tech Transfer Efforts by setting new benchmarks and encouraging system-wide collaboration
USM Economic Development

Agenda

- COVID-19 Task Force Activity
- Momentum Fund Impact & Gap Funding Need
- Venture Development Report
- USM Strategic Plan
USM COVID Research & Innovation Task Force

- **Acceleration Program**
  - Industry partner interest
  - Community partners outreach & engagement
  - USM startup & innovator identification

- **Maryland Pandemic Research Institute**
  - Business Impact & Economic Recovery
  - Medicine & Life Science
  - Societal Impact, Community Health & Engagement
  - Predicting & Tracking
USM Maryland Momentum Fund

Investments

- **NextStep Robotics**
  - $250,000
  - Feb. 2018
  - $1.14MM round

- **PaverGuide**
  - $300,000
  - Apr. 2019
  - $675K round

- **NeoProgen**
  - $245,000
  - Oct. 2019
  - $1.5MM round

- **InferCabulary**
  - $250,000
  - Feb. 2020
  - $783K round

**Co-Investors:** Sanofi, Middleland Capital, Abell Foundation, Lord Baltimore Fund, Chesapeake Bay Seed Capital Fund, Dingman Angels

**MMF(University+USMO) Investments:**
- $4.7MM ($5.7MM committed)
- $21M external fund match (~5X match)
- Average investment: $260K
- Average total round deal size: $1.4M

**Details:**

- **KaloCyte**
  - $300,000
  - Jun. 2020
  - $1M round

- **miRecule**
  - $250,000
  - Jul. 2020
  - $3.5M round

- **NextStep Robotics**
  - Add-on $500k

**Funds Spent**

- **MF Fire**
  - Nov. 2017
  - $192,500
  - $1.2MM round

- **Zest Tea**
  - $300,000
  - Dec. 2018
  - $1.035MM round

- **Retrium**
  - Apr. 2018
  - $400,000
  - $1.5MM round

- **Gemstone**
  - Aug. 2019
  - $250,000
  - $1.3MM round

- **ARMR**
  - Feb. 2020
  - $350,000
  - $750K round

- **KaloCyte**
  - Jun. 2020
  - $1M round

- **NextStep Robotics**
  - Aug. 2020
  - Add-on $500k

**Reserve**

- **MiRecule**
  - $250,000
  - Jul. 2020
  - $3.5M round

**Funds Remaining**

- **MF Fire**
  - $192,500
  - $1.2MM round

- **Zest Tea**
  - $300,000
  - Dec. 2018
  - $1.035MM round

- **Retrium**
  - Apr. 2018
  - $400,000
  - $1.5MM round

- **Gemstone**
  - Aug. 2019
  - $250,000
  - $1.3MM round

- **ARMR**
  - Feb. 2020
  - $350,000
  - $750K round

- **KaloCyte**
  - Jun. 2020
  - $1M round

- **NextStep Robotics**
  - Aug. 2020
  - Add-on $500k
UMCP IP and Alum
World’s most advanced wood burning stove

UMB IP, Towson Alum
Exoskeleton robot to reverse foot drop for stroke victims.

UMCP IP, Alum
Advanced pulse jet engine

UMCP Alum
High caffeine tea, energy drink product

UMCP IP
Advanced semipermeable pavement system

UMCP Alum
Agile software development management product

UMBC and UMCP Alums
Tissue regeneration via stem cells

UMB IP and Alum
Anticoagulant drug, therapeutics for rare blood disorders

UMB IP and Faculty
Cell-based therapy for cardiovascular disease

UMCES Alum
Sonar to measure shrimp biomass

BioPark Tenant
Next-gen tourniquet

Towson Alum, TU Incubator startup
Ed-tech vocabulary app

UMCP Alum
Software platform to manage energy across buildings

UMCP IP and Faculty
Food safety testing technology

UMB/UMBC Faculty, BioPark
Dried artificial ref blood cell

USM Momentum Fund Portfolio Companies
USM Maryland Momentum Fund

Benefits

The USM Maryland Fund has generated numerous benefits for USM, the State, and the Maryland entrepreneurial ecosystem:

- **Enhanced Ecosystem Development.** Almost 140 companies have received advice and support from the Momentum Fund. The Fund engages the investment community and experts around companies; with input from 28 expert review panels, the external advisory board reviewed 21 companies for investment.

- **Enhanced Job Creation.** To date, Momentum Fund companies have created 66 jobs.

- **Co-Investment.** Far surpassing initial targets, the Fund has catalyzed investment at a rate of 5:1!
The Next Capital Gap and ROI Opportunity

Looking Earlier

- “Pre-Momentum Fund”
  - Over 40 companies who approached the Momentum Fund in last year are still too early in their development to fit the MF investment criteria

- “Outside of Momentum Fund”: The Momentum Fund is only a good fit for certain companies.
  - USM assists more than 100 startups each year through programmatic and place-based resources, utilized more by woman-owned and minority-owned firms
  - While USM deploys non-dilutive and in-kind capital (about $1.5M per year), equity investment, loans, or other types of capital are not widely available
The Next Gap and ROI Opportunity

Potential Benefits

If USM tackles earlier-stage capital gaps, return on investment potential is still large, though it would look different:

- **Enhanced Ecosystem Development.** 80% of startups remain in those communities where they receive significant mentorship and/or initial investment.

- **Enhanced Job Creation.** In terms of job creation for every dollar of capital invested, investing at an earlier stage provides even greater leverage, creating a $65k job for every $30k invested/granted. (According to a survey of 119 active translational research, proof of concept, startup and venture gap funds and accelerator programs at 75 universities and affiliated organizations nationally.)

- **Co-Investment and Potential Enhanced Momentum Fund Returns.** New sources of support can be tapped. Early, smaller investments can help inform future, larger investments.
USM Venture Development Report
January through June 2020

Total Ventures Supported: 82
- Ventures New to USM: 51
- USM Ventures Supported in a New Way: 31

Support Provided by USM:
- Provided Capital: 50
  - Supported for the First Time: 28
- Mentored or Trained through a Program: 35
  - Supported for the First Time: 19
- Helped Hire Interns or Employees: 3
  - Supported for the First Time: 1
- Moved into a University Space: 15
  - Supported for the First Time: 10

Characteristics of Ventures NEW to USM:
- Have USM Founders: 24
- Based on USM Intellectual Property: 15

By Industry:
- Life Science: 18.3%
- Information Technology: 32.9%
- Consumer Products & Food: 19.5%
- Energy, Environment, & Materials: 26.8%
- Consulting & Other: 3.6%
USM Venture Development Report

January through June 2020

New to USM Examples

A sample of the ventures spinning out of USM or those supported for the first time:

- **CoordinatED.** This classroom application focuses on teacher feedback to help in terms of student accommodations (special needs, IEP, etc.). The just joined TU incubator as an affiliate.

- **HighT-Tech.** They provide disruptive materials science based technologies derived from the novel shock synthesis method. Their team is working on deploying materials with unique properties and unmatched performance for the chemical, energy, transportation, and environmental sectors. The founder, a UMCP faculty member, has received mentoring from UMCP and support from the TEDCO Maryland Innovation Initiative (MII) program.

- **Astek Diagnostics LLC.** Founded by a recent UMBC PhD graduate, this company is developing a clinical analyzer for assessing bacterial infections and determining effective antibiotic selection. They are licensing UMBC intellectual property and recently received support through the TEDCO Maryland Innovation Initiative (MII) program.
USM Venture Development Report

Longitudinal (1 of 2)
USM Venture Development Report
Longitudinal (2 of 2)

USM-Affiliated Small Business Development Centers
Unique new business start clients by hours of mentoring

<table>
<thead>
<tr>
<th></th>
<th>&lt;20 Hours</th>
<th>20-39.5 Hours</th>
<th>40+ Hours</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Half 2020*</td>
<td>74</td>
<td>9</td>
<td>5</td>
<td>88</td>
</tr>
<tr>
<td>2nd Half 2019</td>
<td>77</td>
<td>10</td>
<td>5</td>
<td>92</td>
</tr>
<tr>
<td>1st Half 2019</td>
<td>97</td>
<td>16</td>
<td>3</td>
<td>116</td>
</tr>
<tr>
<td>2nd Half 2018</td>
<td>64</td>
<td>11</td>
<td>4</td>
<td>79</td>
</tr>
</tbody>
</table>
New USM Strategic Plan

Innovative Education and Workforce Development – Proposed

1. Train students in degrees critical to Maryland’s economy
   • Numerical goal TBD
2. Provide ways for students to gain workforce-ready knowledge, skills, and abilities within and outside of four-year degrees that can be effectively communicated to potential employers
   • Numerical goal TBD
3. Engage students and faculty in experiential learning that supports local communities and local to global innovation communities, including internships at startups and small businesses.
4. Engage students in innovation and entrepreneurship (I&E) in order to develop workplace-ready, innovative talent. Engage students and faculty in I&E curricular, extra- and co-curricular experiences,
   • Provide an opportunity for each first-year student to have an innovation & entrepreneurship experience
New USM Strategic Plan

**Impactful Research and Scholarship - Proposed**

1. Sustain and enhance the research enterprise.
   - Diversify funding portfolio via strategic partnerships (internally and externally).
   - Increase extramural funding from non-governmental sources.
   - Submit 500 joint USM research proposals through 2025.
2. Engage students and faculty in research and scholarship that supports local communities.
3. License technologies to unleash their potential impact.
   - License 100 technologies per year.
New USM Strategic Plan

Venture Support - Proposed

1. Support student, faculty, employee ventures through capital, mentoring, talent, or physical space
   - Support 50 USM-founded ventures per year

2. Support community and alumni ventures through capital, mentoring, talent, or physical space
   - Support 60 community ventures (no USM founders or IP)

3. Support USM and non-USM startups and small business through purchasing power and access to pilots, customers
New USM Strategic Plan
Still to Be Explored

- **Capacity** – Secure a certain amount yearly in non-institutional support for entrepreneurial support activities. This can include federal, philanthropic, and other sources.

- **Diversity, Equity, and Inclusion (DEI)** – USM broadly is considering DEI, and special committee has formed among USM Economic Development Partners to address this issue as it relates to innovation, entrepreneurship, technology transfer, workforce development, and more.