

UNIVERSITY OF MASSACHUSETTS

AMHERST•BOSTON•DARTMOUTH•LOWELL•WORCESTER

**MINUTES OF THE MEETING OF THE
COMMITTEE ON SCIENCE, TECHNOLOGY AND RESEARCH**

Wednesday, May 25, 2011; 8:00 a.m.

Amherst Room

225 Franklin Street – 33rd Floor

Boston, Massachusetts

Committee Members Present: Chair Johnston; Trustees Fox, Lawton, Reid Santos and Thomas; Ms. Lee representing Trustee Reville

Committee Member Absent: Trustees Dinan, King-Shaw, Osterhaus-Houle Reville and Tocco

University Administration: President Wilson; General Counsel Heatwole; Senior Vice President Williams; Vice President Chmura; Associate Vice President Brancato; Chancellors Holub, Motley, MacCormack, Meehan and Collins; Executive Deputy Chancellor/Provost Flotte; Provosts Langley and Garro; Vice Chancellors for Research and Engagement Malone and Petrovic; Vice Provosts for Research Xia, Chen and Sullivan; Dean Grosovsky; President-Elect Caret

Faculty Representatives: Professors Adrion and May, UMass Amherst; Ms. Gibbs, UMass Dartmouth

Guests: Ms. Emmons, Deputy Director, Center for Community Based Research, Dana-Farber Cancer Institute

Chair Johnston convened the meeting at 8:01 a.m. and welcomed President-Elect Caret to the Committee. He then asked for a motion to approve the **Minutes of the Previous Meeting.**

It was moved, seconded and

VOTED: To approve the minutes of the February 9, 2011 meeting of the Committee.

Today's agenda includes presentations from President Wilson, Vice Chancellor Michael Malone from the Amherst campus and from the UMass Boston/Dana-Farber team.

Chair Johnston then announced that this was President Wilson's last Committee meeting. His tenure at the University has been marked by tremendous progress in the science and technology area, which is the reason why UMass is now one of the leaders in New England. UMass is up to half a billion dollars in research expenditures. UMass has developed its technology transfer program, which now ranks among the top 15 universities in the country in

Committee on Science, Technology and Research
May 25, 2011

terms of licensing income. In recent years, UMass has attracted about \$200M in special state investments and R&D programs and facilities especially in the life science and clean energy areas. UMass has won many NIH and NSF competitions for national R&D centers in areas ranging from nanotechnology to clinical and translational sciences. These accomplishments are due to President Wilson's commitment to research. Chair Johnston thanked President Wilson for his commitment and support.

There was then a round of applause.

Under the **President's Report**, President Wilson provided updates on three key state-wide strategic initiatives.

Life Sciences Update:

- UMass Medical School – ALS research:
 - Professor Robert Brown, working with RXi Pharmaceuticals, won a \$500K cooperative R&D grant from Mass Life Sciences Center;
 - Former Governor Paul Cellucci announces campaign to create a \$10M endowment for ALS research – the UMass ALS Champion Fund – supporting work in Brown's laboratory.
- Potential Mass Life Sciences investments:
 - Lowell invited to submit \$10M proposal for equipment investment in ETIC;
 - Medical School developing business plan and proposal for continued funding of stem cell bank/registry;
 - Discussions underway for \$10M life sciences investment at Dartmouth and \$95M life sciences facility investment at Amherst.
- Mass Tech Transfer Center to host Mass Life Sciences Innovation Day (June 2 at Harvard) for companies, investors and university-based inventors and entrepreneurs.

Clean Energy Update:

- Meeting planned to brief new EOEEA Secretary Rick Sullivan on UMass capabilities and activities in clean energy and environmental protection;
- Wind Technology Testing Center opened May 2011...collaborations underway with Amherst and Lowell faculty to support research in wind blade technology and training for wind energy engineers and technicians;
- UMass campuses participating in 9 invited proposals for U.S. DOE Offshore Wind Initiative (partners include WHOI, MIT, Cape Wind, Mass Clean Energy Center, National Renewable Energy Lab).

Information Technology - Mass Green High Performance Computing Center:

- Facility:
 - Demolition/remediation of Holyoke site has begun, to be complete in summer 2011;
 - Construction projected to start summer 2011;

Committee on Science, Technology and Research
May 25, 2011

- Completion and move-in projected late 2012.
- Collaboration:
 - Establishment of \$1M R&D “seed fund” to encourage multi-university R&D initiatives in HPC technology (e.g., green computing) and application areas (e.g., clean energy);
 - Multi-university proposal submitted to NSF for \$54M national center on high performance computing as part of TeraGrid;
 - MIT/UMass K-12 proposal re STEM education and cloud computing, and multi-university support for community college education & training proposal.

President Wilson also provided an overview of the Science and Technology Initiative Fund.

- The S&T Fund was established in 2004 – during a period of fiscal constraint;
- The Fund has emerged as a critical tool for implementing UMass R&D growth strategy;
- To date, about \$7M of investment has helped leverage about \$145 in R&D funding to UMass. A strong return on investment over the first seven years;
- Served as model for other programs: Creative Economy Fund, Life Sciences Moment Fund;
- Broad focus enables a diverse portfolio across many fields of science and engineering;
- Increasingly competitive R&D climate makes these resources more important than ever;
- Five projects were identified for funding in 2011.

Chair Johnston then introduced the next item, a presentation from UMass Amherst Vice Chancellor for Research and Engagement Michael Malone on a **UMass Innovation Institute (UMII)**. Collaboration is emphasized leading to real-world experiences as a consequence of the research that is done on the various campuses. This institute’s proposal is a perfect example of that kind of collaboration.

President Wilson commented on the concept for launching the Institute. It is a national priority to more effectively move research outcomes from campus to society, and there is an increased federal emphasis on translational research (e.g., NIH) and innovation and technology development (e.g., NSF, DOE). With decline of traditional corporate R&D labs, there is also a heightened interest by industry to work with universities, and in response a growing number of research universities developing new vehicles for applied R&D and innovation (e.g. Georgia Tech, Purdue).

Chancellor Holub commented on the requirements for moving the flagship campus into the top-tier of public research universities and the role which a facility like the UMII would play. Last spring Vice Chancellor Malone was encouraged to pursue his idea of an innovation institute to enhance the research profile. Several public and private institutions have organizations that facilitate public/private partnerships in research. The Huron Consulting Group was hired to

Committee on Science, Technology and Research
May 25, 2011

explore how such an Institute might be developed. Today's presentation is the result of Vice Chancellor Malone's efforts to establish such an organization for UMass.

Vice Chancellor Malone then presented the Proposal for the creation of a UMIL. This is proposed as a new vehicle to enable the University to do more applied research and development and work with industry to develop innovative new products and services.

This concept is used by many leading research universities and will enable faculty to complement the academic research they currently do. Vice Chancellor Malone explained that the concept would be piloted at Amherst and could be expanded to other campuses over time.

The Innovation Institute holds great promise for further growing the University's research enterprise, increasing its partnerships with industry and enhancing its contributions to economic development in the Commonwealth.

A brief discussion ensued about identifying sources of revenue and forging international partnerships to raise the prominence of the University as an international research institution.

Chair Johnston then introduced the next item, a **Panel Discussion on the Center for Personalized Cancer Therapy: A Joint Initiative of UMass Boston and Dana-Farber/Harvard Cancer Center.**

Chancellor Motley introduced the panel that has developed an exciting collaboration focused on a new Center for Personalized Cancer Therapy. Vice Provost for Research and Strategic Initiatives, Zong-Guo Xia, Andrew Grosovsky, Dean, College of Science and Mathematics, and Karen Emmons, Deputy Director, Center for Community Based Research, Dana-Farber Cancer Institute; Co-Principal Investigator, UMass Boston - Dana-Farber/Harvard Cancer Center U54 Cancer Research Partnership.

The Center for Personalized Cancer Therapy (CPCT) is a joint initiative between the University Massachusetts Boston and Dana-Farber/Harvard Cancer Center (DF/HCC), committed to erasing the health disparity in cancer diagnosis, treatment and care. The goal of the Center is to establish a translational research program that will make an impact in the clinical arena by the development of better and more personalized tests for cancer patients. The CPCT will also have transformational impact on research and training capacity in the life sciences at UMass Boston and beyond.

Discussions for the partnership were initiated in 2002, with the goal of reducing health disparities. This eventually led to an award of a 5-year (2005-2010) National Institute Health (NIH) partnership grant for \$4.3M, equally shared between both institutions. In 2010, NIH awarded another 5-year equally shared partnership grant for \$13.7M, which was ranked first in the nation in the competitive grant review process. These funds launched strong collaborative programs for cancer research, training, and outreach, which resulted in nearly \$30M in leveraged

Committee on Science, Technology and Research
May 25, 2011

research and training grants to joint teams of UMass Boston and DF/HCC investigators.

Vice Provost Xia provided institutional and historical context for the newest joint research and innovation enterprise with Dana-Farber/Harvard Cancer Center for Personalized Cancer Therapy. It is part of UMass Boston's strategy to aggressively pursuing its vision of a distinguished public urban research University.

Dean Grosovsky and Ms. Emmons provided an overview of the CPCT partnership, described the nature of the unique collaboration between UMass Boston and DF/HCC, outlined the research program and objectives for improved cancer diagnostics and care, and discussed its role in enhancing the strength of the Massachusetts life sciences cluster.

This initiative will create a unique translational research facility located on the UMass Boston campus. The CPCT will provide UMass Boston with a sophisticated new resource for promoting student and faculty success in biomedical science, bioinformatics and biotechnology.

The CPCT will also diversify UMass Boston's opportunities to engage in significant interactions with corporate partners. The CPCT will begin operations shortly in the Venture Development Center (VDC). In anticipation of CPCT's arrival, three life science start-up companies have located in the VDC. Several other promising start-up companies are on a waiting list. Partnerships between academic institutions and industry are an essential and productive component of translational research endeavors. Construction of UMass Boston's Integrated Sciences Complex, which will be the permanent home of the CPCT, is slated to begin at its groundbreaking on June 8th 2011, with an anticipated opening in fall 2013.

The meeting adjourned at 10:01 a.m.

Zunilka Barrett
Assistant Secretary to the Board