# Vice President for Research

The Office of the Vice President for Research (VPR) is responsible for the stewardship of MIT's research enterprise. It seeks to foster strong, mutually beneficial relationships with groups that sponsor research, including federal agencies, Congress, industry, foundations, and foreign governments. The VPR's responsibilities also include research administration, policy, integrity, and compliance, all executed in a manner to maximize the effectiveness of, and minimize the burden on, faculty and research staff. The Office of the VPR is also responsible for environmental health and safety at the Institute, as well as for postdoctoral affiliates and international scholars.

Readers should consult the individual reports on each of the laboratories, centers, programs, and offices that report to the VPR to learn about research highlights and accomplishments. Some notable achievements of VPR and changes for this very productive year include the following items.

The Institute launched an initiative on the environment led by founding director Professor Susan Solomon. The MIT Environmental Solutions Initiative (ESI) distributed a call for proposals for seed grants. Nine two-year grants involving 24 principal investigators were funded, covering the broad areas of sustainability, metals and mining, healthy cities, and climate change risk mitigation.

The Abdul Latif Jameel World Water and Food Security Laboratory (J-WAFS) launched a number of key activities this past year. It secured a $4.85 million grant to initiate J-WAFS Solutions, which over a five-year period will fund approximately 15 two-year projects to commercialize MIT water and food solutions. Further, through a competitive process initiated by a call for proposals, J-WAFS awarded $1.8 million in seed grants of $100,000 per year (direct cost) to nine two-year projects involving principal investigators from 11 MIT departments and all five schools.

The MIT Campus Conversation on Climate Change, lead by Vice President Zuber, Provost Martin Schmidt, ESI Director Susan Solomon, and MIT Energy Initiative (MITEI) Director Robert Armstrong, was tasked in September 2014 to launch an open, campus-wide conversation on how MIT can lead in confronting the risk of climate change. In June 2015, a committee appointed by Vice President Zuber submitted a report of its findings to the Conversation Leadership.

In September 2014, with a $15 million gift from the William and Flora Hewlett Foundation, MIT established the Cybersecurity Policy Initiative, led by Daniel Weitzner of the Computer Science and Artificial Intelligence Laboratory (CSAIL). The initiative is aimed at laying the foundations for a smart, sustainable cybersecurity policy to deal with the growing cyber threats faced by governments, businesses, and individuals.

In November 2014, with a generous $25 million gift from the Neil and Anna Rasmussen Foundation, MIT, in collaboration with Massachusetts General Hospital, launched the Center for Microbiome Informatics and Therapeutics in the Institute for Medical Engineering and Science. This is a new interdisciplinary center dedicated to advancing

understanding of the microbiome's role in human biology and harnessing this knowledge to develop treatments for related illnesses.

To facilitate cross-institutional collaborations, MIT signed the Master Institutional Review Board (IRB) Reliance Agreement. The agreement will allow MIT investigators who are collaborating with researchers at hospitals, other universities, and clinical practice organizations within the New England network to request a single IRB review for their studies.

The Research Laboratory for Electronics expanded and broadened its very successful Translational Fellows Program to provide training and support for the possible commercialization of research-based innovations to a group of competitively selected postdoctoral researchers.

In September 2014, the Haystack Observatory celebrated the 50th anniversary of the iconic 37-meter Haystack telescope, an event that drew more than 300 attendees from MIT and many other places across the country. Further, at about the same time, Haystack learned of the selection of the Mars Oxygen in Situ Resources Utilization Experiment as a payload component of NASA's Mars 2020 mission.

In December 2014, the Koch Institute received a perfect score from the National Cancer Institute. The Institute's Cancer Center Support Grant was renewed.

In January 2015, Professor Dennis Whyte (Nuclear Science and Engineering) became the new director of the Plasma Science and Fusion Center. He replaced Professor Miklos Porkolab (Physics), who stepped down after 20 years of distinguished service.

MITEI announced that ExxonMobil joined as a new founding member and, in addition, brought on seven new members at lower levels of membership. MITEI also published and announced the findings of the Future of Solar Energy study.

The Division of Comparative Medicine had its triennial site visit from the Association for the Assessment and Accreditation of Laboratory Animal Care this past November. MIT received full accreditation for three years and was commended for providing and maintaining an exemplary program of animal care and use.

In support of postdoctoral associates, the VPR Office mandated adherence to the National Institutes of Health salary scale and increased support for campus-wide access to career development and other services. The Office is pleased to report full compliance with this new directive.

The VPR Office instituted a number of administrative improvements. Among them, the Office:

- Developed, with the support of an ad hoc faculty committee, a matrix for interdepartmental laboratory and center reporting. After a careful review of the existing reporting relationships and in discussions with the School deans,

the changes in laboratory and center reporting were implemented throughout AY2015. Major changes include moving CSAIL to the VP for Research and shifting the Center for Materials Science and Engineering to the School of Engineering, the Operations Research Center to the Sloan School, and all the major international programs to the Provost. The Sea Grant College Program and the Laboratory for Manufacturing and Productivity were integrated into the Department of Mechanical Engineering.

- Further reduced the barriers to under-recovery funding of foundation grants, enhancing arrangements for support for each School.
- Launched the Kuali Coeus grants management system to replace the Coeus system that had been in place for 20 years. When fully implemented, this new system will provide new functionality to enhance the proposal submission and award management system. Additional functionality allows for the improved departmental management of sponsor-approved budgets.
- The Office of Sponsored Programs, in collaboration with the offices of the Vice President for Finance, the Vice President for Research, and the Audit Division, led a cross-functional team to perform an in-depth review of the new federal Uniform Guidance, which replaces the federal circulars (A-21, A-110, and A-133) that govern all federal awards. The team's key accomplishments included reviewing and updating several policies to bring MIT into compliance; organizing a working group to solicit feedback on revised procedures and guidance related to institutional base salary, subawards monitoring, procurement, and streamlining the closeout process. Efforts were made to inform and educate the broader research community through websites, trainings, and information sessions.
- Made progress in transitioning the Office of Sponsored Programs to an enabling organization, where the focus is on allowing departments to take compliance risks and responsibility at the local level while still providing efficient and professional communication, high levels of customer service, and solution-oriented approaches that support MIT's sponsored programs.

In FY2015, MIT's total research volume (independent of Lincoln Laboratory) reached $697 million, compared with $678 million in the past year. The volume represents a 2.7% increase over the past year. Federal funding constitutes 66% of the campus research expenditures, continuing a downward trend, in the past few years, of the share of total support that is federal. Substantial increases in support from industry and foundations continue to mitigate this trend in federal funding.

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