## **Office of Sponsored Programs**

#### **Mission and Functions**

The mission of the Office of Sponsored Programs (OSP) is to assist the MIT research community in securing sponsored research funding, administering those funds in a manner consistent with the mission and goals of the Institute, and making the administration of those funds as easy and efficient as possible. The primary functions of the office are:

- proposal review to ensure adherence to sponsor requirements and compliance with Institute and sponsor policies;
- review and negotiation of agreements, including outgoing subawards, to ensure
  consistency with the Institute's corporate charter and status as a tax-exempt
  educational institution and compliance with Institute academic and research
  policies, such as those relating to freedom to disseminate research results, access
  for all foreign faculty, staff, and students to MIT's educational and research
  activities, control of intellectual property, and full cost reimbursement;
- post-award administration to assist departments, laboratories, and centers (DLCs) in meeting MIT and sponsor requirements;
- calculation, audit defense, and negotiation of MIT's facilities and administrative and employee benefit rates;
- development and maintenance of Coeus, a grants management system that supports the Institute's policies and management reporting needs; and
- development and delivery of training programs on research administration policies and procedures.

## **Challenges and Accomplishments**

#### **Training**

OSP's training and communications team is made up of a manager, a senior training specialist, and a web producer. The added capacity supplied by the training specialist has made it possible to consistently deliver the Sponsored Projects Administration (SPA) learning program. The eight-day program, supported and taught by more than 40 business experts and representatives from DLCs and central departments, teaches critical facets of the role and responsibilities of lead research administrators in DLCs. Thirty-nine administrators participated during FY2011. To date, the 54 SPA alumni work in departments that represent 87 percent of the Institute's FY2011 research volume.

The team has also reinvigorated short, integrated learning programs on the fundamentals of research administration policy and practice at MIT. Two "Fundamentals" programs have been relaunched: Unallowable Costs, and Project End and Closeout. Plans to relaunch other Fundamentals programs and to make the series more effective are a priority in FY2012.

The greatest accomplishment of FY2011 is the actual and planned integration of training offered by the Office of the Vice President for Finance (VPF) and OSP. In addition to the collaboration that makes the SPA program possible, OSP's Fundamentals courses are developed and delivered with significant contributions by business experts from both offices. As well, VPF and OSP training managers have agreed to determine ways to integrate an OSP perspective into the VPF "Introduction to..." programs. With peers in training across campus, the OSP training team is committed to continuing and expanding such collaborations and cross-department learning integration.

#### Streamlining and Improving the Sponsored Project Proposal Process

In response to the 2009 MIT Institute-wide Planning Task Force recommendations, and with the Research Administration Coordinating Committee (RACC), OSP will facilitate process improvements across the MIT research community that make significant and measurable improvements in the development, review, and submission of sponsored project proposals.

The number of new proposals submitted by MIT increased modestly during FY2011, to 2,508. At the same time, use of MIT's Coeus proposal preparation, routing and review tool continued to grow. Anticipating broader use of Coeus for proposal routing and review in the future, OSP focused on developing improved Coeus routing and review capability.

During FY2011, OSP developed new functionality within Coeus Lite to collect proposal data that identifies common stumbling points during proposal preparation and review. The data has been used to streamline OSP review to identify OSP grant and contract administrators capable of becoming authorized to submit proposals to certain federal agencies without senior staff review. Currently, all OSP grant and contract administrators are involved in training to become authorized to submit federal proposals. To date, three OSP grant and contract administrators have been granted such submission authorizations.

OSP has initiated communication with DLC research administrators regarding proposal preparation issues that have been identified from proposal data collected. Additional communication and training opportunities will be developed to address common proposal preparation problems, with the objective of improving proposal quality and saving time.

#### **Non-federal Team**

In FY2011, the number of non-federal agreements (of all types, funded and nonfunded) negotiated by the new OSP non-federal negotiations team increased 15.5%, to 372 from 322 in FY2010. Seventy-four percent of these negotiations were conducted with industrial organizations, while the remainder were conducted with foundation (2%) and other non-federal/nonprofit (24%) sponsors. The total number of new non-federal awards decreased 6%, to 615 from 653 in FY2010, but anticipated obligations increased 7.6%, rising from \$282.1M to \$303.7M, while expenditures for non-federal awards grew at a rate of 3.8%, from \$184M to \$191M.

In response to the task force recommendations, OSP continued its program to improve the way that non-federal negotiations are conducted and the way that they are communicated with the MIT community. During FY2011, the program:

- enabled OSP to hire (on a two-year appointment) a new contract specialist and
  assistant contract specialist, allowing OSP to manage the increased negotiation
  volume while reducing negotiation durations, and freeing up contract specialist
  time to implement the improvement projects and improve communications with
  stakeholders;
- standardized the business processes for negotiating funded award agreements and subaward agreements;
- improved OSP's systems for tracking negotiations and measuring and analyzing time duration of these negotiations to characterize sources of delay in the processes;
- updated OSP's templates for frequently drafted research agreements, speeding up new agreement development, as well as reducing language that is confusing or triggers unnecessarily difficult negotiation;
- improved negotiators' communications with stakeholders inside and outside of MIT; and
- implemented a benchmark survey (in December 2010) and ongoing pernegotiation survey (in July 2011) of principal investigators after negotiations are completed to measure satisfaction and obtain feedback for continued improvement of OSP's performance.

This work will continue into FY2012 with the added implementation of a new online web resource for MIT employees and students requesting non-disclosure and/or confidential data use agreements, and the development of a three-phase training course for MIT negotiators of sponsored program agreements.

#### **American Recovery and Reinvestment Act**

The American Recovery and Reinvestment Act (ARRA) of 2009, also known as the Economic Stimulus Package, called for federal funding agencies to invest approximately \$22B in extramural research by September 2010 for the purpose of stimulating the US economy and, in particular, retaining existing and creating new jobs. Both the National Science Foundation (NSF) and the Department of Energy (DOE) received about 50% more in funding (\$3B each) in addition to their usual FY2009 appropriation amount (about \$6B each). The National Institutes of Health (NIH) received another \$10B in addition to their \$29B FY2009 annual appropriation. The other funding agencies received more modest increases in funding through ARRA. To date, MIT has received 185 awards totaling \$149M.

These awards come with stringent additional reporting requirements. Principal investigators are required to provide quarterly reporting of expenditures, progress on the project, and counts of the number of jobs created and retained for each award funded with ARRA funds for the life of the project, up to five years. OSP has completed the eighth reporting cycle for these awards with all reports filed on or before the deadline. Reporting on 159 awards continues. ARRA expenditures in FY2011 totaled \$50.26M, with cumulative ARRA expenditures at \$76.73M.

#### **Research Administration Coordinating Committee**

The Research Administration Coordinating Committee (RACC) was launched in March 2009 to provide ongoing review of research administration policies, systems, and business practices and processes to improve the way the Institute manages sponsored funding. In FY2011, RACC continued to monitor salary certification compliance and launched a subteam to review the current systems used to certify salaries and recommend improvements that would simplify the process without compromising compliance. Those recommendations are due shortly. Also, RACC launched a pilot of a "pre-closeout" audit process to further support the work to improve award closeouts. The group also advised OSP on the implementation of a training program in the responsible conduct of research (see below).

For FY2012, process improvement efforts include the management of cost sharing related to federal awards, streamlining the financial reporting and closeout process, and streamlining the proposal process. RACC is a group of volunteers and does not have a staff.

#### **Responsible Conduct of Research**

As part of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act, NSF introduced a new requirement for educating all undergraduate, graduate, and postdoctoral researchers supported by NSF awards in the responsible conduct of research (RCR). To comply with this new requirement, OSP identified an online training program hosted by the Collaborative Institutional Training Initiative (CITI) and developed a recording mechanism by which those training records are fed automatically into each individual's training record within the SAP Enterprise Learning Module. In fall 2011, OSP will implement a fully automatic email notification and reminder system to facilitate monitoring and ensure compliance with this requirement. CITI RCR training is available to anyone in the MIT community.

#### **Costing Issues**

In June 2011, OSP's cost analysis group concluded negotiations with the Office of Naval Research, establishing fixed facilities and administrative (F&A) rates for FY2012 at 60.5% on-campus and 5.0% off-campus. It is important to note that MIT's F&A rates for the past few years had been set artificially high (68.0% in FY2009, 68.0% in FY2010, and 67.5% in FY2011) in order to settle accumulated carryforward amounts with the federal government. At the end of FY2011, MIT will have collected all carryforward amounts due.

In addition, employee benefits rates have been negotiated for FY2012 on a provisional basis. Rates are 26.0% on-campus, 24.0% off-campus, and 8.0% for part-time employees. Rates have risen considerably since FY2011 and are projected to continue to rise, primarily driven by amortization of market losses on invested pension funds.

Throughout FY2011, the cost analysis group was also engaged in supporting routine federal audits of MIT's research programs conducted by the Defense Contract Audit Agency (DCAA) and the Institute's comprehensive audit of compliance with Office of Management and Budget (OMB) Circular A-133, performed by PricewaterhouseCoopers (PWC), the Institute's independent auditors. This year, MIT changed its audit strategy

to combine most of the A-133 audit requirements under PWC. This change reduces the number of audits performed by DCAA and is intended to provide MIT with better advice regarding audit and compliance. OSP was instrumental in this change.

In May 2010, OSP hired a new export control officer, who has engaged in a program review over the last year and has identified gaps that need to be addressed to ensure compliance with MIT policy and federal regulations. One of the key areas of focus has been MIT's international shipments, including research items and equipment that may be subject to export controls. A physical item developed in a fundamental research project may be controlled even if the research was not. OSP helps to assure compliance with any licensing requirements. Even international shipments with no licensing requirement can be complex, inviting delays, damage, or unexpected and sometimes unnecessary costs. OSP assembled a team representing MIT's international shipping expertise, and has pooled its knowledge and made it available to the MIT community. The team is pursuing operational improvements identified during its work.

## **National Policies Affecting Research Activities**

#### **Conflict of Interest**

NIH and Congress continue to scrutinize researchers for potential conflicts of interest. In the first revision in over 15 years, NIH recently announced the implementation of a new policy that includes:

- a lower reporting threshold for payments from for-profit entities;
- a more robust institutional review process for relatedness between the outside activity;
- a researcher's MIT activities; and
- publishing the disclosure of any relatedness between outside activities and public health service funding.

Policies and procedures addressing these changes must be implemented by August 24, 2012.

#### A-21 Task Force

The Office of Management and Budget (OMB) formed a team of high-level officials of federal research funding agencies to review administrative burdens included in OMB Circular A-21—Cost Principles for Educational Institutions. MIT participated in several efforts to respond to this initiative, including those initiated by the Council on Governmental Relations (COGR). There are positive signs that some of the recommendations from COGR and MIT will be implemented and could lead to reduced administrative burdens of effort reporting and subrecipient monitoring, in particular. The report of the A-21 task force is expected in fall 2011.

#### **Export Control Regulations Under Review**

MIT's policy of access to educational and research activities for foreign faculty, staff, and students coexists with its responsibility to comply with US export control regulations. OSP's review and negotiation of research agreements includes careful attention to

the fundamental research criteria of the several export control regimes to assure that research can be conducted and results published without restriction. It also guards against making export-controlled technology part of campus research because of the restrictions it entails. Further, the export regulations in some cases have not advanced at the same pace as the technology, which leads to restrictions in programs such as fabrication of advanced semiconductor devices.

A major effort is under way to unify and simplify US export control regulations with the potential to make it easier to conduct advanced fundamental research while maintaining access and compliance. The vice president for research at MIT has been deeply engaged in these matters in Washington, DC. OSP has been following the details of these reform efforts and the ways they will affect the campus, providing feedback and suggestions to the government agencies involved.

#### **Research Volume**

The MIT total research volume (expenditures) for FY2011, excluding Lincoln Laboratory, was \$661M, which represents an increase of 7.56% (or 5.47% including Broad) over FY2010 expenditures. The volume breakdown by major sponsor is shown in Table 1.

Table 1. Research expenditures by sponsor (in thousands of dollars), FY2007–FY2011.\*

	2007		2008		2009		2010		2011	
	Original source	Proximate source	Original source	Proximate source	Original source	Proximate source	Original source	Proximate source	Original source	Proximate source
Federal										
DHHS	201,557	177,175	226,307	198,205	255,896	231,449	136,923	123,100	152,664	135,756
DOE	64,741	55,990	64,889	57,239	65,356	58,183	72,599	65,035	89,253	78,035
DOD	90,571	57,113	87,370	55,526	97,528	63,650	106,890	69,969	107,753	66,225
NSF	65,057	52,006	64,973	51,120	61,386	47,864	69,802	54,678	74,859	59,814
NASA	27,889	16,536	25,479	14,923	27,358	16,433	30,629	20,464	28,080	19,524
Other	14,589	12,026	14,891	12,715	14,975	12,644	13,311	11,258	16,912	13,808
Subtotal	464,404	370,846	483,909	389,728	522,499	430,223	430,154	344,504	469,521	373,162
Nonfedera	al									
Industry	75,190	99,771	79,016	100,285	96,214	116,170	89,790	110,101	97,867	123,289
Nonprofit	37,590	99,934	50,909	117,469	63,817	128,327	50,040	106,136	47,729	111,049
Other	21,084	27,717	29,209	35,561	35,673	43,483	44,387	53,630	45,708	53,325
Subtotal	133,864	227,422	159,134	253,315	195,704	287,980	184,217	269,867	191,304	287,663
Total	598,268	598,268	643,043	643,043	718,203	718,203	614,371	614,371	660,825	660,825

Note: Original Source includes expenditures on awards directly from US government agencies plus expenditures at MIT through subawards. For example, if we receive Department of Health and Human Services (DHHS) funds via a subaward from Princeton University, we would count it as DHHS funding under Original Source column, and Nonprofit under Proximate Source. Therefore, federal funds would be higher under the Original Source column.

<sup>\*</sup>Totals exclude Lincoln Laboratory.

<sup>†</sup> FY2010 totals exclude all Broad Institute expenditures. The MIT Brown Book reports \$626,560,519 in expenditures.

<sup>\*\*</sup> Includes state, local, and foreign governments; MIT internal; and Lincoln Laboratory.

# **OSP Operating Statistics**

OSP operating statistics for FY2009–FY2011 are shown in Table 2.

Table 2. Office of Sponsored Programs operating statistics, FY2009–FY2011.

	FY2009	FY2010	FY2011
Navy proposals (aval Propd)	2,373	2,452	2,508
New proposals (excl. Broad) New proposals	2,497	2,453	2,508
New awards (excl. Broad)	936	1,135	1,051
New awards	1,013	1,137	1,051
- 10 11 4-11 4-2	23	20	21
New contracts (US fed, excl. Broad)	24	20	21
New contracts (US fed)	280	290	272
New contracts (non-fed, excl. Broad)	289	290	272
New contracts (non-fed proximate)	187	205	194
New sub-awards issued	2,818	3,031	3,169
Subaward invoices processed	2,010	3,031	3,109
Non-fed team negotiations (funded and non-funded)		322	372
Active awards (excl. Broad)	3,184	3,443	3,427
Active awards	3,386	3,444	3,427
Active contracts (US fed, excl. Broad)*	85	73	70
Active contracts (US fed)*	88	73	70
Active contracts (non-fed, excl. Broad)*	836	866	870
Active contracts (non-fed)*	862	866	870
Active grants (excl. Broad)	2,263	2,504	2,487
Active grants	2,436	2,505	2,487
Active consortia	54	56	51
Total active consortia members	224	227	225
Consortia expenditures	\$37,575,903	\$28,260,230	\$30,342,373
ARRA proposals	274	124	5
ARRA awards	23	136	25
ARRA awards: total anticipated \$	\$13,378,861	114,415,688	\$22,165,000
ARRA expenditures	\$147,463	26,316,903	50,267,561
Coeus help desk tickets	1,596	2,844	2,520
Active internal orders	8,698	9,001	9,054
Internal order initiated in the FY (by effective date)	853	725	695

<sup>\*</sup>Includes fellowships, IPAs, and instruction

Michelle D. Christy Director