

## **Dean for Graduate Education**

The Office of the Dean for Graduate Education (ODGE) is an Institute-wide support and referral office for graduate students and graduate administrators. ODGE complements graduate administration in individual schools and departments, and advocates broadly for graduate education. ODGE comprises the Office of the Dean for Graduate Education, the International Students Office (ISO), and the Graduate Student Council (GSC); together, these offices foster academic excellence and quality of life for MIT's community of graduate students.

### **Office of the Dean for Graduate Education**

Leveraging the efforts of a small office with a headcount of 11, ODGE accomplishes its goals primarily by working collaboratively with other units. This entails key partnerships with the offices of the Dean for Undergraduate Education (DUE), the Dean for Student Life (DSL), Resource Development, the Alumni Association, the Office of the Provost, and MIT's academic departments.

The mission of the Office of the Dean for Graduate Education is to promote graduate education and student life at MIT. ODGE seeks to make the graduate student experience a transformative one, thereby developing the next generation of scholars and leaders who will create new knowledge, innovate in ways that serve society, and educate succeeding generations. The strategic plan of ODGE is organized around four key themes: expanding the diversity of the graduate student population, enhancing the graduate community, improving funding for graduate education, and improving the day-to-day business processes within the ODGE offices.

### **Diversity**

ODGE serves as a catalyst for attracting a more diverse graduate student body to all of MIT's graduate academic programs, and provides students with various forms of support so that they are academically successful. ODGE's functional definition of diversity, in terms of its programs and initiatives, focuses on underrepresented minority students, who primarily include African Americans, Native Americans, and Hispanics. ODGE has also sought to work with women, first-generation college students, and students from small colleges in its recruiting and retention efforts.

ODGE is guided in its mission by the 2004 faculty resolution that called for MIT to increase the number of underrepresented minority graduate students by a factor of three within a decade. Since 2004, we have made a number of strides towards reaching the goals in that resolution. The number of applications to graduate school from underrepresented minority students (including non-Hispanic applicants) has nearly doubled to approximately 1,000 applications. This increase in applications has led to a corresponding rise in the total number of underrepresented minority graduate students enrolled in MIT's graduate programs—from 301 students in 2004, to 394 students in 2009. Despite these gains, there is still much work to be done.

Our continuing strategy consists of two parts: partnering with academic departments to improve the quality of recruiting and mentoring, and developing and operating programs to support diversity at MIT. Continuing on this course allows us to build on our work and evaluate its success.

The primary mechanisms for recruiting applicants from underserved and underrepresented groups and for engaging departments and programs are the MIT Summer Research Program (MSRP) and CONVERGE, a graduate pre-admissions preview weekend. In addition, we have worked with departments to develop new initiatives such as the new Biology Bridge Program for minority students (this program is discussed in the Department of Biology's report to the president). ODGE also plays a critical role in organizing MIT's presence at national recruiting conferences such as the Annual Biomedical Research Conference for Minority Students, the National Society of Black Engineers, the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, the Society for the Advancement of Chicanos and Native Americans in Science, the American Indian Science and Engineering Society, and the Society of Hispanic Professional Engineers.

A small team of four people share responsibility for recruitment and retention initiatives in addition to their particular focus areas: Elizabeth Granese joined the team this year as the administrative assistant for CONVERGE, Gail Rock is the coordinator of the CONVERGE and Amgen Scholars programs, Monica Orta is the coordinator of MSRP, and Christopher Jones is assistant dean for graduate education and director of the Amgen Scholars United States program office. Christopher Jones entered a PhD program within the Department of Urban Studies and Planning in September, and for the duration of his studies he will continue to work for ODGE part-time (50%) during the academic year and at least 80% during the summer.

### **CONVERGE**

ODGE continues to identify and develop opportunities to engage departments and programs in targeted outreach. CONVERGE, a graduate preview weekend, seeks not only to encourage the highest caliber students to apply to MIT but also to shift the perception, held by some potential students, of MIT as a cold and unwelcoming place in which they could not flourish. CONVERGE's mission is to increase the presence of underrepresented and underserved students in MIT's graduate programs. To achieve its mission, the program:

- Selects candidates who comprise a strong, talented applicant pool
- Exposes selected students to MIT's graduate programs, facilities, and campus life through a four-day weekend
- Connects participants with MIT faculty, staff, graduate students, and other CONVERGE students involved in the graduate school admissions process

While on campus, students meet with faculty members and spend time with members of their departments of interest. The program has provided an excellent opportunity for many talented underrepresented students to strongly consider MIT as a place to pursue graduate education.

ODGE continues to work with departments and programs to take better advantage of preview weekends held each spring for admitted students. Most departments encourage admitted students to come to the Institute to meet faculty and students and to get an early introduction to the program. We continue to have discussions with a number of departments to bring many of the underrepresented and underserved students to campus at the same time. This collective welcome and orientation builds greater excitement about attending MIT.

Over the past year, CONVERGE was able to significantly increase the number of applicants from 60 in 2008 to 110 in 2009. This was done through more focused recruiting efforts, through the leveraging of existing relationships, and through the utilization of former interns. The increased applicant pool allowed much more selectivity in admitting students and ultimately increased the number of CONVERGE alumni that were admitted into MIT's graduate programs. Additional background and information may be found at <http://web.mit.edu/odge/undergraduate/converge/index.html>.

### ***MIT Summer Research Program***

The MIT Summer Research Program is the Institute's premier recruitment tool for underrepresented minority graduate students. Established in 1986 and redesigned in 2004, MSRP's mission is to promote the value of graduate education, to improve the research enterprise through increased diversity, and to prepare and recruit the best and brightest for graduate education at MIT. Since its inception, MSRP has seen more than 90% of program participants go on to pursue advanced degrees. Of these participants, 17% were admitted and chose to attend MIT. This year, MIT departments admitted six interns from MSRP 2009, four of whom accepted and will begin their programs in September. Summer 2010 welcomed the first MSRP master's student—an African American female graduate student from Vanderbilt University, who worked in the lab of professor Eneotali Figueroa-Feliciano.

A faculty committee, commissioned in 2004 by then-provost Robert Brown, was charged with redesigning MSRP and has continued to serve as an advisory board. Assistant dean Christopher Jones and program coordinator Monica Orta continue to work with this committee, chaired by professor Paula Hammond of the Department of Chemical Engineering, to implement important changes in the program. Past and present committee members have included professor Stephen Bell (Biology), professor Eric Hudson (Physics), professor Tayo Akinwande (Electrical Engineering and Computer Science), Karl Reid (Office of Minority Education), Janet Fischer (Office of the Provost), and Isaac Colbert (former dean for graduate students).

MSRP places interns with faculty members, who serve as direct mentors. During the nine-week program, interns receive individual counseling on academic careers and constructive feedback on the need for further undergraduate courses. They acquire additional laboratory skills, are given the opportunity to co-author a scientific paper with their faculty mentor, and are exposed to state-of-the-art research laboratories. Since the expansion of MSRP in 2005, a growing number of departments and programs throughout the Institute have become active participants. The 2010 class included

44 interns who conducted research in 14 different departments. Seventeen of the participating faculty members had never hosted MSRP interns in the past, but have now joined almost 200 faculty members who have been key to the program's success since it began. These professors participate in program design, intern selection, matching interns with projects, and academic interactions. MSRP continues to have a significant academic component, in which faculty conduct weekly lunch seminars on their research. We encourage the recent trend of faculty members looking for ways to add MSRP to their research grants in order to provide funding for individual interns.

Building on established relationships within MIT and the broader Boston community, ODGE's community service day comprised four different activities throughout the Boston/Cambridge area. Interns performed service projects at Cambridge Community Center, Little Brothers–Friends of the Elderly, Elizabeth Peabody House, and Catholic Charities. As a way to further engage the departments, we continued formal visits with graduate officers, graduate administrators, and current students in the departments in which MSRP interns have expressed an interest. Janet Fischer was helpful in this endeavor.

MSRP program assistants (PAs)—MIT graduate students who work with the program during the summer—continue to thrive as a result of the training process formalized last year. The process provides leadership and professional development opportunities, and the graduate students were also able to develop their research communication skills by presenting their research to the MSRP group. Three of the PAs are former interns, and this year they began the practice of presenting their research during the faculty session over breakfast on Thursdays.

This year MSRP program coordinator Monica Orta was promoted to a staff-level position that more accurately reflects her work in interacting with faculty, administrators, students, and individuals outside of the MIT community. For more information, please see the program website at <http://web.mit.edu/odge/undergraduate/msrp/index.html/>.

### ***First-year Graduate Student and Postdoctoral Mentoring Program***

The graduate student mentoring program targets first-year underrepresented minority students with the goal of increasing retention. The mentors are MIT postdoctoral fellows in a variety of research areas. Matches are made on the basis of similar research interests or backgrounds. The program's intent is to provide a structured support system through a professional relationship between the researcher and the graduate student. This interaction does not involve research supervision and should allow for the development of a meaningful advising relationship.

This year, nine postdoctoral/mentee pairs were formed. Each pair submitted monthly reports on its progress and the feedback was overwhelmingly positive. The goal was to provide a development opportunity for the graduate student mentees, but it was found that the postdoctoral fellows also received helpful development. The year's program began with an orientation and brief training and concluded with an end-of-year reception.

### ***Graduate School Clinic***

The purpose of this new initiative was to establish and grow strong relationships with top students at minority-serving institutions early in their academic careers. It was also to identify and cultivate students who might not be the highest performers in their freshman year, but who have the potential to be MIT candidates by their junior and senior years. Building on work done in prior years, a graduate community fellow interviewed many MIT departments to determine best practices for admissions in each department. These practices included identifying the coursework that best supports a graduate course of study and which opportunities help a student prepare for research experience or an advanced degree. This data formed the basis of an interactive presentation that included common themes from interviews, tools for applying to graduate school, tips on obtaining funding, advice on selecting a school and advisor, and a host of other useful information. A trial clinic was conducted with a group of MIT undergraduates, followed by a full clinic at Bennett College in North Carolina. The program was a great success and will be repeated and expanded in the coming year.

### ***Graduate Community***

Today's graduate students actively seek opportunities to interact and share knowledge and experiences with fellow scholars, both within and outside their departments. MIT has made considerable strides in providing a vibrant environment for living and learning. However, the transformation of graduate studies from a collection of individual labs and academic programs into a true "community of citizen-scholars" is still very much a work in progress.

As with efforts in the areas of recruitment and inclusion, ODGE's approach is to work through partnerships across the entire MIT community. Given the maturity of many MIT graduate students and the small size of ODGE's staff, our strategy in the area of building a vibrant graduate community is to tap into student talent and creativity whenever possible. These efforts have included the graduate student life grants, which enable students to build their own community and a growing cohort of graduate community fellows, whose work has supported several areas of focus for ODGE, including programs for women and international students.

### ***Graduate Student Life Grants***

Now in its 10th annual cycle, the Graduate Student Life Grants program is a request-for-proposal process that invites graduate students and others in the MIT community (including alumni) to submit creative ideas for funding. The key criterion is that each proposal should offer concrete ideas for enhancing the community life of graduate students. These grants are one of the few sources on campus that will fund the proposal of an individual rather than requiring affiliation with a student group or department. While most projects run one to two years, 10 proposals have earned some level of ongoing funding, including initiatives to connect off-campus students to MIT life, events to introduce graduate students to music and unique art, incentives to participate in public service, opportunities to learn about other cultures over coffee, a weekly opportunity to convene with friends new and old, and avenues for exposure to science policy as well as peer research.

This year the proposal deadline was moved to January, allowing students to develop more cogent proposals over the independent activities period (IAP). Twenty-six proposals were submitted, 18 of which were offered funding, including a family concert with musician Tom Chapin, a workshop on finding work-life balance, a series of interdepartmental coffee hours, and a workshop on making one's voice heard through opinion news pieces. Since the program's inception in 2002, over 1 million dollars have supported 145 unique projects. For more detail on the process as well as project descriptions, view the website at <http://web.mit.edu/odge/community/index.html/>.

### ***Graduate Community Fellows***

Graduate Community Fellows are a cadre of graduate students who work on projects and assignments that enhance the graduate community in unique ways. Each fellow reports to a staff member in ODGE or in a partner organization and focuses on a specific project. The typical appointment period is the nine-month academic year. Fellows work an average of 10 hours each week in return for a monthly stipend. This year the program grew to a total of 13 fellows and was supported for the first time by a program coordinator.

Graduate Community Fellows conducted vital work for ODGE in the areas of programs for women, including focus groups and the Path of Professorship workshop; diversity initiatives such as the graduate school clinic, the first-year mentorship program, and developing MSRP; the graduate student life grants; programs for international students; and graduate student orientation. It is noteworthy that the senior associate dean's work on behalf of graduate women was supported by two graduate community fellows this year. The additional fellow added capacity and a unique skill set, both of which contributed significantly to the successful achievement of rather ambitious goals. Other assignments with partner organizations included development of MIT's diversity website (<http://diversity.mit.edu>), programs to end violence against women, teaching students to use media to communicate more effectively, and resources for easing friction and stress.

Enabled by program coordinator Heather Fry, the fellows program initiated a centralized application process, monthly roundtable meetings for fellows, an ongoing presence at meetings of the Graduate Student Council, and a wiki to share information and resources. Expanded reports are now collected centrally on an annual basis. For further details, view the website at <http://web.mit.edu/odge/community/gcfellows.html/>.

### ***MentorNet***

Since 1998, MIT has enjoyed a fruitful relationship with MentorNet, an e-mentoring program that provides mentors in industry and the academy to students, postdoctoral scholars, and junior faculty in the science, technology, engineering, and mathematics (STEM) fields. Over the 12-year period, 376 MIT protégés have been matched with mentors, with 31 of those mentors being MIT alumni. Additionally, 467 MIT students have posted their resumes to MentorNet's site for exposure to potential employers.

Unfortunately, however, this past year engagement declined and only 19 protégés, as compared to 50 in AY2009, were matched. Further, the program's year-end survey reflected declining ratings of the overall experience of MIT participants.

With increasing interest in "homegrown" mentoring efforts bubbling up from both MIT students and departments, and with budget constraints as a factor in determining how to most effectively deploy office resources, ODGE found itself at a decision point. Ultimately, the office made the difficult but necessary decision to forgo membership renewal with MentorNet for FY2011. Instead, the office will review and assess the current mentoring resources offered at MIT and the needs of graduate students. The office will also strengthen its signature programs that serve to support the success and professional development of graduate students who are underrepresented in STEM.

### ***Support for Graduate Women***

During AY2010, ODGE centered its efforts on behalf of graduate women in three areas: completing the focus group survey process to better understand the graduate experience of women students across the dimensions of research, community, and academics; implementing and analyzing the written survey of support for graduate women students; and raising the visibility of the accomplishments of graduate women across the Institute. Additionally, ODGE continues to sponsor its signature programs, Path of Professorship and the graduate women's reading group.

*Focus Groups.* To learn more about the experiences of graduate women students during their tenure at MIT, ODGE set out to hear from at least a few students in each department and program. The method of investigation chosen was focus groups. In AY2009, two focus groups were held, and the process was concluded during AY2010, with eight focus groups and one virtual focus group via online survey. In all, the voices of over 80 graduate women were heard. Conducting the focus groups were senior associate dean Blanche Staton and two graduate community fellows, hereafter known as "the team."

Students were randomly selected from their department and were generally third-year PhD candidates or above. Two of the focus groups had slightly different populations: a masters group and a mothers group. The team held the focus groups by department, based on the notion that the greatest factor defining students' differences in experience may be their department. The team grouped similar departments together (e.g., engineering; math and physical sciences, biological sciences), assuming that students may have common experiences and that these similarities would facilitate discussion and openness. Invitations were sent via email and the aim was to get 10 students per focus group.

The main topics addressed were: how students achieve work-life balance, the advisor-advisee relationship, relationships between female students and their peers, how female graduate students chose their careers and whether they changed that choice during the course of their studies, and why students would or would not choose MIT again.

The range of responses and depth of insight offered by the students was incredibly rich, and the information gathered sheds intense light on what MIT does very well and where there is work to be done. The team identified three main themes that resonated through all conversations:

- A desire for more mentorship
- A need for greater transparency in funding
- A hope for continued support of work, family, and personal life balance.

Echoed from some members of the focus groups was the sentiment that MIT has come a long way from simply including to actually empowering graduate women; however, there is still room for improvement. ODGE hopes that the feedback the team received through these conversations will help support that process. The office will make the results available to others, and will use them to inform our own work in the coming year.

One participant spoke for many when she said:

Sometimes looking back, there is an all boys network, but I think there can be an all girls network. You have the opportunity at MIT to meet all these women, even outside your field. Having that network is really important to discuss how to handle the children issue, or joint research. Women are a great resource to talk with and learn from. Graduate women should make use of those opportunities to build a network even early on. (Focus group participant, 12/10/09)

*Survey of Support for Graduate Women.* In early December 2009, ODGE invited 1,853 graduate women at MIT to participate in a web-based survey co-sponsored by ODGE, DSL, and GSC. The survey was administered by the Institutional Research Group (IRG) of the Office of the Provost. The goal of the survey was to better understand how well MIT currently meets the needs of graduate women and how MIT can further improve the quality of life of graduate students.

The survey was prompted by concerns raised by a large group of graduate women who sought assurance last fall that the level and quality of support would not be adversely impacted by the departure from MIT of Lynn Roberson, DSL's longtime assistant director and advocate of women's programs and support. For many years, Roberson had as part of her role primary responsibility for convening women students at all levels and colleagues throughout the Institute in efforts to enhance the well-being and overall experience of women students.

The survey asked graduate women about their awareness and usage of various programs, services, and events available to graduate women students and groups. The survey also asked students to rate the importance of a range of functions of support for graduate women students. Finally, the survey asked graduate student mothers to share their experiences with specific Institute-wide resources.

The survey closed in early February with 970 total responses, or 52% of the graduate women invited to take the survey.



The summary data are currently available to the MIT community on the website of the Office of Institutional Research. IRG, along with the sponsors, is reviewing the detailed responses and determining how to best mine, present, and distribute the data. Ultimately, the data from this survey will guide programmatic and support efforts directed toward graduate women in the future.

*Celebrating Graduate Women.* With extraordinary leadership from the Graduate Community Fellows, ODGE hosted a new event designed to showcase the accomplishments of MIT's graduate women in research and in other areas of their lives. The impetus for creating such an event mostly came through feedback to ODGE staff and other business partners from MIT's graduate women students. All too often, in focus groups and other forums where graduate women students feel safe sharing their experiences, these talented students see themselves as constantly having to prove their worth as serious scientists to male peers and faculty. They believe that their contributions and talents largely go unnoticed or are viewed and presented as less significant than those of their male peers.

Thus, with an eye toward increasing awareness of the presence and excellence of MIT's graduate women students, ODGE provided an opportunity for members of the MIT community to nominate "graduate women of excellence" for recognition and a poster presentation of their work and life story at an evening of celebration at the MIT Museum. In addition to a reception, the students' posters were displayed in Lobby 10 in a week-long exhibit for perusal by the entire MIT community. A total of 91 nominations were submitted from 24 departments and offices, from which 47 finalists were selected.

The celebration engaged school deans, department chairs, and other senior leaders and faculty, as well as staff, visitors to MIT, and students. The support from male graduate students was noteworthy and the excitement and pride among the graduate women students was palpable. It was, indeed, a great week of recognition. The posters may be found at <http://web.mit.edu/odge/community/women/celebratewomen.html/>.

*Path of Professorship.* The fourth annual Path of Professorship workshop for graduate and postdoctoral women who are considering academic careers welcomed a record 53 graduate women as well as 13 postdoctoral women, which was fewer than in past years. Less effort was expended toward recruiting postdoctoral participants as a result of budget constraints. However, due to increased awareness of the workshop and interest on the part of the vice provost for research and the deans of the School of Engineering (SoE) and the School of Science (SoS), discussions are ongoing about ways to support the inclusion of more postdoctoral women. Of the total graduate student participants in AY2009, three represented the School of Architecture and Planning (SAP), which is atypical as the workshop is designed to promote faculty in STEM fields. The School of Engineering contributed 31 students, with the largest group from the Department of Electrical Engineering and Computer Science. The MIT/Woods Hole Oceanographic Institution Joint Program sent one student, and 18 were from the School of Science. The postdoctoral cohort included six from SoE, five from SoS, one from SAP, and one from the Broad Institute.

Over the day-and-a-half event, 21 women faculty presented on a variety of topics related to preparing for and being successful on the tenure track. More than half of the presenters were MIT faculty. For many of the returning presenters, the workshop is the highlight of their year and they are thrilled to be part of an initiative that has the potential to make a significant positive impact on the interest and readiness of MIT women for faculty careers.

Based on written feedback, the following sessions were perceived as the five most useful (listed in descending rank order): the interview process (for a faculty position), guiding principles for being a “quick-start” professor, negotiating the offer, work-life balance, and the tenure process at major research institutions. A sample program and resource material may be found at <http://web.mit.edu/odge/development/pop/index.html/>.

*Graduate Women’s Reading Group.* The Graduate Women’s Reading Group (GWRG) has experienced increased interest and success this past year, so much so that ODGE is considering ways to accommodate more students. The current group has determined that 15 students are optimal for the intimate discussions and interactions they value. The women read one book per month over 12 months. The students pre-select the books for the year, which are then provided by ODGE.

One student captured the general sentiments of the women who participate:

It provides a way for women across multiple disciplines to meet without the awkwardness of organized mixers. I enjoy the format of the reading group because we choose our own books as a group, thus we are more likely to engage in a lively discussion of a book in which we are interested. I am thankful that the GWRG doesn’t have a particular focus or theme to our selections, as the range from technical or biographical to fiction or classic literature is a refreshing change of pace from the customary reading of a grad student.

When I know I have a book to read for the GWRG, I make a point to set aside time to read it; essentially, I am setting aside time to relax. That has been the best unforeseen perk of being a part of the group.

In my opinion, departments should consider creating similar women’s reading groups as a way to foster community among their female graduate students. It has been my experience that when women feel they are a part of a community and have a support system, they are more likely to be happier and to succeed in a trying situation.

*Graduate Women’s Group.* The monthly Graduate Women’s Group (GWG) lunch gatherings continued to draw 50 to 75 students from diverse departments and programs. The women typically dispersed into small groups in the Margaret Cheney Room—a space designated since 1883 for the exclusive use of women students—for lively discussions on topics ranging from research conferences, publications, and lab cultures to career trajectories and social and family interests.

The significant change from last year was in administrative leadership. With the departure from the Institute of Lynn Roberson, who co-led the GWG with Blanche Staton for 12 years, the question that had to be answered during summer 2009 was how to ensure the same level of support for graduate women students. With the goal of broadening the administrative expertise and capacity, Staton decided to reach out to health educator Susanna (Zan) Barry of MIT Medical, who advises students in the areas of healthy eating and stress management, and psychologist Miri Skolnik of Student Support Services. Also, the Student Activities Office engaged assistant director Alicia Erwin to manage the Cheney Room and logistics for the lunch gatherings.

### **Graduate Financial Support**

The Office of the Dean of Graduate Education has a broad responsibility for administering external, endowed, diversity, and MIT presidential fellowships. With the retirement of fellowships administrator Brima Wurie, the administration of all fellowships was consolidated under administrative officer Pamela Schickling, who serves as the fiscal agent.

Fellowships are attractive because they allow students to concentrate on their research without the distractions of a research assistant or teaching assistant position. With the uncertainty of the economic downturn, more and more graduate students are applying for fellowships.

Last year, the number of students on competitive external fellowships increased from 424 to 431, with a total funding of more than \$16 million. The dean's office administered 17 sponsored fellowships, including seven federal and 10 non-federal fellowships.

With funds from Total Corporation, ODGE was able to offer three new fellowships to incoming international graduate students from Africa with interests in energy, social, and economic development. At the start of September 2009, there were five Total Corporation students—three from Nigeria, one from Cameroon, and one from the Ivory Coast. One of these students graduated from MIT in June 2010. At the start of September 2010, there will be three Total Corporation students—one from Nigeria, one from Ghana, and one from Cameroon.

MIT remains one of the universities most commonly selected by National Science Foundation (NSF) and National Defense Science and Engineering Graduate (NDSEG) fellows. Out of approximately 2,000 NSF fellows nationwide, MIT currently enrolls 300 NSF fellows and 82 NDSEG fellows, compared with last year's 277 fellows and 91 fellows, respectively.

ODGE awarded \$4.33 million in endowed internal fellowships to outstanding students. The MIT presidential fellowships maintained a strong program with awards of \$6.8 million as well as a support structure for fellows; please see the report to the president from the Office of the Provost for more information.

In spring 2010, ODGE collaborated with Student Financial Services and the Sloan School of Management to implement MIT's participation in the Yellow Ribbon Program. This program will begin in September 2010 and will provide partial fellowship support to a maximum of 15 United States veterans pursuing a master's degree of engineering or a master's degree of business administration.

Information on various fellowship aid resources can be found at <http://web.mit.edu/odge/financialaid/fellowships.html/>.

### **Improving Business Processes**

ODGE continues to focus on improving how it conducts business from a strategic perspective. This includes the migration of a portion of ODGE staff to the Exchange calendaring and email system, the preparation of the migration to iOffice for the ISO, updating the nonresident student policy, centralizing the I-9 (US Citizenship and Immigration Services employment eligibility verification) process for graduate students, and launching the redesigned ODGE website. In addition, ODGE participated in a review of MIT's response to illegal peer-to-peer file sharing. ODGE continues its position as US program office of the Amgen Scholars Program.

During the past year, director of communications Barrie Gleason retired, and Heather Fry was promoted to the position of communications officer. The dean's office welcomed Michael DiPalma as the new financial staff assistant and Spyridoula Kerasaridi as the Graduate Student Council administrative assistant II, both filling vacant positions.

With Information Systems and Technology (IS&T) retiring the *TechTime* electronic calendar, ODGE has begun the process of migrating staff to the new Exchange calendaring and email system. A portion of the staff migrated in March due to technical reasons, and the remainder of will migrate during summer 2010.

The International Students Office has been working in collaboration with IS&T and Indiana University over the past year to prepare for the implementation of Sunapsis, which is scheduled to go live in October 2010. Sunapsis will replace the current Xroads system, which is a homegrown system that is not supported by IS&T. The new system will greatly improve the overall efficiencies between ISO and the Department of Homeland Security's (DHS's) Student Exchange Visitor Information System (SEVIS). SEVIS will be upgraded to SEVIS II in the next year and having Sunapsis in place prior to the upgrade should enable a smooth transition.

The graduate nonresident policy was updated this past year. The new policy allows nonresident graduate students to receive fellowship support from MIT for an amount up to 5% of tuition per semester for up to three semesters. This amount can be given to the student via a fellowship appointment in Web Grad Aid either as tuition or stipend. The system will not permit funding for nonresident students in their fourth or later semesters. The full policy can be found at <http://web.mit.edu/odge/gpp/degrees/thesis.html#7/>.

In response to an audit finding, the dean's office implemented a new policy to centralize the validation and maintenance of I-9s for graduate students. Effective May 1, 2011,

all I-9s will be gathered, validated, and filed centrally at the Student Services Center in Room 11-120. Validating I-9s in Web Grad Aid will bring the Institute into full compliance for all graduate student research assistant and teaching assistant workers.

The process of redesigning the ODGE website came to its conclusion in November 2009. The redesigned site features greatly improved navigation as well as a completely fresh look and feel. MIT staff and students gained immediate access to a greater amount of more easily accessed information.

In compliance with the Higher Education Opportunity Act of 2008, MIT developed a plan to address illegal peer-to-peer file sharing and downloading at MIT. Collaborating offices included IS&T, the Office of Student Citizenship, the Office of the General Counsel, ODGE, and Student Financial Services. Team members from each office worked together to review MIT's current response to copyright infringement, to redesign the Copyright at MIT website (<http://web.mit.edu/copyright/>), and to craft and plan the implementation of MIT's response.

### ***Amgen Scholars Program***

Begun in 2006, the Amgen Scholars Program is a \$25 million, eight-year program through which selected undergraduates attend one of 10 prestigious universities for an intensive summer research experience in a scientific field. Sites include the California Institute of Technology; Columbia University/Barnard College (a joint program); Howard University; MIT; Stanford University; the University of California campuses at Berkeley, Los Angeles, San Diego, and San Francisco; and the University of Washington. Participants are immersed in research directed by some of the nation's top academic scientists. As one of the 10 host institutions, MIT hosts 25 to 30 summer research interns in its Amgen-Undergraduate Research Opportunities Program Scholars Program each year. A full report of MIT's work as a host site may be found in the report to the president of the Office of Undergraduate Advising and Academic Programming under DUE.

MIT also serves as the US program office for all sites of the Amgen Scholars Program through ODGE. ODGE oversees operations of all 10 institutions, providing direction and technical assistance, and working to promote the program at the national level. It has served this function since the program's inception and initial call for applications.

This year began with 2,877 individual applicants in the US, a 78% increase since the program's debut. Students' majors ranged from biology to neuroscience, and psychology to chemistry. All of the students convened at a midsummer symposium to meet their counterparts from other universities and hear presentations from leading scientists in academia and industry. At the 2010 symposium, attendees will have the honor of hearing from astronaut and MIT alumnus Robert Satcher.

As of 2008, the Amgen Scholars Program expanded to Europe. Led by a coordinating center for Europe at the University of Cambridge, individual sites include Karolinska Institutet, Ludwig-Maximilians-Universität München, and the University of Cambridge. MIT is proud to partner with the Amgen Foundation to empower the next generation of scientists to elevate their thinking in order to solve the world's most significant problems.

AY2010 represented the final year of a four-year \$1 million grant from the Amgen Foundation to carry out operations as the US program office. ODGE has applied for a renewal of this grant.

**Steven R. Lerman**  
**Vice Chancellor and Dean for Graduate Education**  
**Professor of Civil and Environmental Engineering**

## **International Students Office**

The mission of the International Students Office (ISO) is to help the international student population at MIT fulfill academic goals by providing services and support programs that facilitate adjustment to a new academic and cultural environment. The office assists students in maintaining their legal status in the US, provides support for their dependents, and promotes their interaction with and integration into the MIT community at large. In addition, ISO interfaces with all MIT offices, advocating for awareness in the community of issues salient to MIT's international student population.

MIT has had a substantial international student population for many years. In AY2010, 150 international students from 120 countries were on campus, an increase from 145 from the previous year. Over 670 spouses and children accompanied international students to the Institute, all of whom entered the US under MIT's legal sponsorship. Asian countries continue to dominate MIT's international population, with students from the People's Republic of China at the top of the list. In AY2010, nearly 28% of the overall MIT student population was international. At the undergraduate level, 9.18% of students were international; at the graduate degree-granting level, nearly 39% of students were international.

The Institute retains its enormous appeal to the best and the brightest around the world in nearly all science and engineering fields. This past academic year, all of the approximately 1,000 incoming students who accepted offers of admission and could identify funding resources arrived by their program start dates.

ISO's primary goal is to ensure that students feel welcomed and valued, not only within the MIT community but also in the nation as a whole, as students contend with a security-minded America. Mindful of ongoing budget constraints, ISO staff devoted considerable effort to seeking creative ways to increase efficiency and lower costs without compromising our mission of service to MIT's international student body. A major effort has just begun to create a paperless office, in collaboration and coordination with the federal government's planned deployment of SEVIS II, a digital international student transactional system. With the support of the Institute, ISO has purchased the Sunapsis/iOffice application that will facilitate paperless business processes, both with the government and within ISO. Together with IS&T, ISO staff have been testing and evaluating the new Sunapsis system since December 2009. Data conversion and deployment should be complete early in FY2011.

## Admissions

ISO plays a pivotal role in the legal admission of international students, issuing the immigration documents required for appropriate student visas and port of entry inspection.

The number of foreign nationals admitted to MIT increased again in AY2010. International undergraduate admissions rose by 5.7% while international graduate admissions increased by 6.3% compared to last year. In addition, foreign universities and foreign governments continue to seek to establish formal exchange programs with the Institute. The Institute has sponsored and supported participation in international exchange, bringing more foreign nationals to campus for non-degree academic programs as short as three weeks and as long as 24 months. New academic programs such as the master's degree in finance and the master's degree in science management studies have attracted large international participation.

The number of visiting students invited to the Institute by MIT faculty grew by approximately 200 to total over 700 students in AY2010. SoE sponsors the vast majority of visiting students on campus. As with all international students, visiting students must comply with the federal government's Student Exchange Visitor Information System regulatory mandates. However, because students arrive at any time throughout the year, often at short notice and bypassing the normal admissions process, they are particularly vulnerable to SEVIS compliance issues and present unique challenges to ISO. In early 2010, the provost convened a visiting students committee to evaluate current practices and to propose a new fee structure. ISO director and associate dean Danielle Guichard-Ashbrook has been an active member of this committee. In early fall 2010, the committee will submit a report to the provost proposing a newly expanded fee structure for visiting students.

## Advising

Advising remains at the core of ISO's responsibility to MIT's international students. The vast majority of ISO staff time is spent in individual appointments with students who seek confidential advice and counsel. Typically, ISO advisors have as many as eight student appointments per day. Whether through the ISO HELP line, the ISO website, or by appointment, ISO staff is kept busy providing legal and personal advice to prospective students, admitted students, current students, and graduated students. While often seeking ISO expertise because regulations require it, students also come to ISO with underlying concerns about cultural adjustment and worries about political tensions back home. Beyond immigration advising, ISO staff routinely provide information to international students about such difficult issues as domestic violence and academic integrity.

In response to recent DHS requirements mandating the tracking of employment data on international alumni for up to three years after graduation, ISO proposed an optional practical training (OPT) fee, which became effective in April 2009. The OPT fee helps defray Institute costs associated with mandatory ISO staff advising to international alumni who no longer pay tuition and fees. Since its inception, the fee has garnered nearly \$100,000 in revenue.

## Programs

ISO is legally mandated to provide immigration information to all new students and to verify that they are in appropriate legal status. Required orientation programming for all incoming foreign national students ensures that we fulfill this important statutory responsibility on behalf of the Institute. In collaboration with the Registrar's Office and MIT Card Services, incoming students are only permitted to register and receive an MIT ID after they have attended ISO orientation. To accommodate graduate internationals who arrive at the Institute throughout the summer, ISO held daily immigration sessions in August 2009 so that students could more quickly participate in MIT community life after arrival on campus. After participating in international orientation, graduate internationals join their domestic colleagues in the graduate orientation activities sponsored by GSC. ISO staff actively participated in and cosponsored some of these events in 2009.

All international students, regardless of age, degree program, or familiarity with life in the US, undergo a period of cultural adjustment. They and their dependents require information about their new surroundings, culture, and community. Orientation activities such as the campus police workshop, the MIT medical presentation, as well as updated information about spouses and partners at MIT, elementary schools in the Boston area, and English language classes address these needs. Newly admitted students have been able to find answers to many of their practical questions and concerns prior to arrival in the US by accessing the ISO website.

ISO is solely responsible for international freshman orientation. While only 9% of the undergraduates at MIT in 2009 were international, they required ISO advice and services at a disproportionate rate compared to their graduate counterparts, especially with respect to immigration compliance issues. Freshman orientation has been designed specifically to help introduce students to their extensive immigration responsibilities while pursuing their academic programs.

The International Freshman Mentor Program, currently in its 12th year, has become a mainstay of freshman orientation. This program matches incoming international freshmen with upperclassmen long before their arrival in the US. Strong bonds develop between student and mentor, beginning with email correspondence while the student is still at home, to airport pickup, to many year-long mentor-organized activities. The mentor program is now staffed and organized entirely by upperclass international students, who bring tremendous enthusiasm and creativity to the program.

The Host to International Students Program (HISP) has remained vital in providing incoming freshman students with supportive emotional and social ties to MIT community members and their families. Over 250 students and community members participated in HISP in 2009. Despite a mandated 50% reduction in budget and ISO staff time devoted to the program, HISP continues to offer many formative experiences and positive, lifelong relationships for those international undergraduates that participate.

The Kailath International Student Fund (established in 2002 with a generous grant from professor George Verghese and Dr. Ann Kailath) continues to provide support for ISO



programming that would otherwise not be possible. Some of the activities supported by Kailath monies include immigration attorney presentations during IAP, subscriptions to international journals and newspapers available to students in ISO, support for several international students with severe dental issues, the traditional three-week “ISO Haven” in December – which provides food and a place for international students to take a break from end-of-term exams and projects – and the ISO graduation open house in June for graduating internationals and their visiting family members.

Roger Jeanty '72 and dean for graduate education Steven Lerman together provided financial support to ISO to ensure the continuity of the enormously popular Jeanty International Teas, established in 2007. With colorful cultural/holiday themes ranging from an “Oh Canada” tea in November to a “Brazilian Carnival” tea in February, over 175 international students attended each of the four AY2010 teas.

The graduate community fellow for international students, Ridhi Tariyal SM '10, designed and implemented creative and compelling programming initiatives for international graduate students in AY2010. Tariyal continued the “Lunch and Learn” series that has brought together international students from a cross section of nationalities, disciplines, and interests. Junot Diaz was the featured speaker in fall 2009, riveting students with his talk about the first- and second-generation immigrant experience in the US. During spring 2010, the ISO community fellow also began establishing contact with local consular and industry organizations to solicit interest in sponsoring ISO programming initiatives. We hope to expand the fellows program in the future, with the goal of providing joint opportunities for community building among MIT's international graduate students and their domestic graduate colleagues.

**Danielle Guichard-Ashbrook**  
Associate Dean and Director

## **Graduate Student Council**

The Graduate Student Council (GSC) set out to chart a financially prudent path to improve graduate student life and to maintain core activities and services provided to students this year. Its administration has achieved these goals, not only maintaining the level of graduate student life at MIT but also bringing it to new horizons.

This past year has seen many important developments. As a direct result of the work by GSC, a reasonable stipend increase (2%) and improvements in various aspects of campus life were made possible. GSC also managed to establish a leadership position on the national level. Orientation and signature events were very well attended while creative new initiatives like the diversity task force were launched. The graduate dental plan created by GSC three years ago reached an enrollment of 1,051 this year.

## **Advocacy, Student Welfare, and Career Development**

GSC's annual stipend recommendation to the MIT administration has been a consistently strong example of the council and the administration working collaboratively. Each year's recommendation is made from a cost-of-living analysis produced from surveys and government inflation statistics. Analysis this year showed that the average graduate student faced at least 1.4% inflation during 2008–2009 and that many still rely on savings, credit card debt, and gifts from relatives to meet their expenses. These findings were presented to the deans group, resulting in a central stipend increase of 2% to catch up with the shortfall in previous years. Continued GSC advocacy also led to the elimination in 2009 of the summer DAPER fee for the use of athletic facilities for students, as well as the construction of a shuttle shelter outside Tang Hall and Westgate residences.

GSC administration has created a legislative action subcommittee and added national policy to our otherwise campus-based advocacy agenda, going to Washington, DC, to push for tax exemption of graduate student stipends, open access to federally funded published research, and higher caps on H-1B visas for advanced-degree holders. Delegations were sent to Capitol Hill to lobby as part of the National Association of Graduate-Professional Students' (NAGPS) annual legislative action days in both the fall and spring. GSC demonstrated its leadership in these efforts and stood out as the nation's most active graduate-professional government.

The 2009 MIT Career Fair, organized jointly with the Class of 2009 and the Society of Women Engineers, was a tremendous success. With over 300 companies and more than 5,000 students attending, the fair was the largest student-run event on campus and one of the largest career fairs in the country. The employer-to-student ratio of the fair is approximately five times higher than that at the career fairs of MIT's peer institutions such as Harvard and Yale. In collaboration with the Undergraduate Association, students worked with administrators and faculty to propose a resolution at the May faculty meeting for moving the September student holiday from a Monday to a day aligning the fair with a student holiday to make student participation easier and to reduce class absenteeism. This resolution was passed in the November 2009 Faculty Meeting.

For a third consecutive year, GSC teamed up with the Writing and Communication Center and Community Wellness at MIT Medical to offer the dissertation boot camp for students who would like additional support while writing their dissertations. Also, in collaboration with the Postdoctoral Advisory Council and the Career Development Center, GSC held the academic careers series as well as the national award-winning professional development series on academic careers, with the latest sessions attracting over a hundred attendees. Furthermore, GSC travel grants continue to benefit many students in need of support to present their work at conferences.

As part of a broader advising initiative, GSC developed and implemented a new graduate student survey on mentoring issues and advisor-advisee relationships and started analyzing the results. This survey had 2,460 respondents, which amounts to 40% of all MIT graduate students. It is the most powerful dataset on advising ever

generated at MIT. A major focus of the rest of the term and for a substantial part of the next administration will be to generate suggestions and actionable items from this dataset. A survey of graduate students was also conducted in the fall to assess their needs in terms of dental care. Based on their feedback, the GSC team is in the process of implementing a more comprehensive, cost-effective insurance plan this fall.

### **Student Life and Activities**

The year started off with the most highly attended graduate orientation in history. The welcome address featured President Hockfield and two Nobel laureates. Other GSC activities that made the year enjoyable included excursions to local events, an 800-person BU–MIT party, and the alumni dinner series. The annual GSC ski trip was the largest ever and saw some 550 students enjoy an IAP weekend in the snow at Sunday River in Maine. The Muddy Charles Pub is a focal point and meeting place for many graduate students—the pub continued its cultural Muddy Mondays series, offering food and drink from around the world in partnership with student groups from the featured country. Also, the pub conducted a successful renovation competition and the Muddy Charles Pub board is working with some of the winning ideas and moving toward implementation to give this beloved pub a new and improved look.

The GSC funding board awarded \$128,548 to over a hundred student groups in the past academic year. Hundreds of events were made possible because of this funding. Despite the budgetary contraction, the GSC team managed to maintain the vibrancy of student activities by keeping funds available to the student groups. A small fund has also been launched to encourage creativity and new student groups.

The leadership development subcommittee held a one-day, on-campus leadership evaluation seminar at which participants used a self-assessment tool to investigate their own leadership styles and how those styles interface with others. The subcommittee also continued its successful leadership evolution for graduate students series, instructing graduate students on essential leadership skills over the course of three IAP sessions.

As members of the newly established legislative action subcommittee took on key leadership roles in NAGPS, the GSC team also reinforced its leadership role with the Boston Graduate Leadership Organization (BGLO). A stronger graduate student coalition in the Boston area and across the nation can serve as a unified voice for student advocacy as well as a useful platform for sharing best practices and networking. As part of its work with BGLO, GSC organized several events, including a 900-person party and fundraiser for Haiti, following the devastating earthquake in that country. Furthermore, GSC won the bids to host the 2010 NAGPS national conference and the 2011 Ivy Summit. The administration established MIT as a leader in the graduate community nationwide.

The 4th Grad Gala was held in April, continuing a growing tradition for GSC. A three-course dinner, live music, and dancing were included in the program for a very reasonable ticket price. GSC continued to make the Grad Rat available, a tradition that began in 2008 as the graduate version of the highly recognizable MIT ring. This year the GSC Grad Rat committee launched an innovative campaign reaching out to a wide range of both student groups and alumni. In March, the Grad Rat was presented to David

Milliband, British Secretary of State for Foreign and Commonwealth Affairs, and an MIT graduate alumnus.

Finally, the *Graduate Student News* has been renamed *The Graduate* (<http://thegraduate.mit.edu/>). *The Graduate* was the name of the original publication that was created in the last century as part of the Graduate Student Council. As GSC revives this tradition, it will also move the publication to a more electronic format to save paper and help the council become a more environmentally friendly organization.

**Alex H. Chan**  
**President**