

## **Council on Primary and Secondary Education**

The Council on Primary and Secondary Education (CPSE) develops programs that bring the strengths of MIT to bear on the American K–12 educational system. The projects sponsored by the council include the MIT/Wellesley Teacher Education Program, Teacher Sabbaticals, and Educational Outreach Programs. The council's chairman is also involved in a number of K–12 educational efforts, including the Science and Engineering Program for Teachers and its product, the Network of Educators in Science and Technology, as well as a collaboration with the Association of American Universities (AAU).

### **MIT/Wellesley Teacher Education Program**

In AY2004, MIT's Teacher Education Program (TEP), led by Professor Eric Klopfer, again reached a milestone in teacher licensure. Continuing a program that started last year, MIT students were provided with a pathway to licensure entirely at MIT. This year TEP nearly doubled its number of licensed teachers to 12. The program was a success and has attracted great interest from students. The Teacher Education Program should continue to contribute to the field of teacher education.

Over the last year, TEP has strengthened its relationship with the Cambridge Public Schools through new projects. At the same time, it has furthered relationships with the Boston Public Schools and the Brookline Public Schools while developing new partnerships with Arlington and Belmont schools. Dr. Klopfer has also recently begun a three-year NSF-funded project to train teachers using new technologies to improve science learning. We are delighted that Professor Klopfer has become the first holder of the newly created Joseph B. Scheller '54 and Rita P. Scheller career development professorship in teacher education. More information about TEP can be found on the web at <http://education.mit.edu/tep/>.

### **Teacher Sabbaticals**

The Class of 1952 Educational Initiatives Fund launched the MIT Teacher Fellows Program, which brings middle and high school teachers together with MIT faculty. Not only is this program effective in helping teachers develop new and creative ways to teach math and science, it allows MIT faculty to share their expertise in the development of K–12 math and science curricula.

Mr. Kenneth Brody, retired from Boston Technical High School, returned to MIT in AY2004. Mr. Steven Cremer, who recently retired from Braintree High School, joined him. Mr. Brody continues to serve as the secretary of the Network of Educators in Science and Technology (NEST). Additionally, he arranges tours of MIT by NEST teachers and students. We are pleased to have precollege educators with us. Their understanding of the needs of classroom teachers is essential to the development of MIT's agenda in K–12 education.

## **Educational Program Outreach Directory**

The council's Educational Outreach Programs continue to be widely circulated through its web page. Approximately 65 programs are listed; programs are either conducted on MIT's campus or have the involvement of people from MIT's faculty, staff, or student body. Activities range from the Chemistry Magic Show—a 45-minute-long road show of attention-getting chemistry experiments along with a running commentary—to the *Voyage of the MIMI*, an interdisciplinary, multimedia math and science presentation geared toward 4th to 8th graders using connected educational television, software, and other instruction materials.

### **Programs by the CPSE Chairman**

#### **Association of American Universities Task Force on K-16 Education**

The Association of American Universities Task Force on K-16 Education, which I chaired through 2002, continued its work during the past year. The AAU initiative Standards for Success (S4S) moved into its final year of work. With \$2.4 million of support, largely from the Pew Charitable Trusts, this program will provide admissions officers with the tools to compare the qualifications and skills of students from states with different proficiency standards. Tools developed by S4S will enable AAU universities as well as others to make better informed admissions and placement decisions about incoming students.

In addition, with encouragement from the National Science Foundation and MIT's Center for Materials Science and Engineering as a model, the AAU Task Force is working to make research experience available to in-service teachers on the campuses of all 63 member institutions. During the summer of 2004, we had 10 such teachers at MIT in a variety of center and laboratory settings: the Center for Materials Science and Engineering, the Biotechnology Process Engineering Center, and the Center for Environmentally Benign Semiconductor Manufacturing.

#### **Science and Engineering Program for Teachers**

Professor Latanision directs the Science and Engineering Program for Teachers, which shares the council's goal of science literacy for all students. The key to a good education is an enthusiastic, knowledgeable teacher. Since 1989, this program has endeavored to give educators a unique perspective of how the basic sciences, mathematics, and engineering are integrated to meet the technological challenges and needs of commerce and society. Our Science and Engineering Program for Teachers continues each summer with sustaining support from MIT alum H. Johan von der Goltz MG '60, founder and general partner of Boston Capital Ventures. During the past summer, 14 MIT alumni clubs and several individual alums through their business foundations sponsored 44 of 50 teachers who participated in the program. Our guest speaker at the annual banquet dinner was R. Steven Daugherty of NASA and the Boeing Company.

The alumni of this program, now totaling approximately 1,000 people, become members of NEST. This past summer, NEST members came to MIT's campus in June for a two-

day meeting to participate in MARS exploration provided by speakers from MIT's Earth, Atmospheric, and Planetary Sciences, the Marshall Space Flight Center, Alabama, and NASA, Texas.

Once again, six Siemens scholars were identified from among the participants in the Science and Engineering Program for Teachers. These teachers were supported during their visit to MIT by the Siemens Foundation. In addition, the foundation provided the resources for MIT's Siemens teacher fellows. Mr. Michael Mahoney will spend seven weeks on campus in a research lab identified by the Center for Materials Science and Engineering. The object of this effort is to make research experiences available to in-service teachers.

**R. M. Latanision**  
**Chairman**  
**Professor Emeritus**

*More information about the Council on Primary and Secondary Education and the Network of Educators in Science and Technology can be found on the web at <http://web.mit.edu/cpse/>.*