Nobelist calls for nuclear cooperation

Elizabeth A. Thomson

A multinational approach to producing nuclear energy and storing waste is key to solving many of the problems that beset this energy source, said Nobel laureate Mohamed ElBaradei, director general of the International Atomic Energy Agency (IAEA), who gave this year’s David J. Rose Lecture on Nuclear Technology at MIT on Thursday, Nov. 3.

“The benefits of nuclear energy are needed more than ever,” ElBaradei told an overflow crowd in the Stata Center’s Kirsch Auditorium. “The speech was webcast live, and can still be viewed on the MIT World web site.”

“Global energy consumption will be almost 60 percent higher in 2030 than it is now and will double by the middle of the century,” he said.

But troubling issues remain, including security. ElBaradei and the IAEA were awarded the 2005 Nobel Peace Prize last month “for their efforts to prevent nuclear energy from being used for military purposes and to ensure that nuclear energy for peaceful purposes is used in the safest possible way.”

ElBaradei also stressed that “no discussion of energy is complete without considering the global energy imbalance.” People in developing countries like Nigeria live with 100 times less electricity than the average citizen in the developed world, and 200 times less than a person in the United States, he said.

“One in four of our fellow human beings lacks access to modern energy services,” he said.

As a result, for reasons including the availability and comparatively low cost of uranium fuel, “the case for constructing new nuclear power plants is gaining ground in many countries,” ElBaradei said.

“We cannot afford the risk of having power plants in every country,” he said. Therefore, he advocates multinational approaches to the nuclear fuel cycle.

“More than one country has to have oversight [over a given plant] to ensure that no one country can control enrichment of uranium,” he said. The world must also

Celebrating McGovern

Sen. Kerry, Jane Pauley join in festivities

Cathryn M. Delude

The McGovern Institute has come home. Celebrating the official Nov. 4 opening of the institute they founded in 2000, Pat and Lore McGovern hosted more than 500 guests in the sun-filled atrium of the largest neuroscience complex in the world — the brain and cognitive sciences complex at MIT.

An overflow of onlookers lined the tiered balconies to hear the lineup of speakers, which included Sen. John Kerry (D-Mass), TV news host Jane Pauley, Nobel laureates Eric Kandel and Phillip Sharp, and Ethernet inventor Robert Metcalfe.

MIT President Susan Hockfield said it was “an incredibly exciting day for all of us as we formally introduce the McGovern Institute into this spectacular building.” The best way to thank Pat and Lore McGovern, she said, is to “turn their aspirations into reality.”

Pat McGovern, an MIT alumnus, recounted how he and his wife, Lore Harp McGovern, came to see

BIONIC SPEED

MIT researchers find a theoretical way to make robotic muscles 1,000 times faster than human muscles.

HIGH FLYING

Some of the greatest names in aviation have been awarded the Daniel Guggenheim Medal. Now it’s Professor Emeritus Eugene E. Covert’s turn.

PUNK ROOTS

Ute Meta Bauer, the new director of the Visual Arts Program at MIT, discusses her inspiration: the punk rock movement.

FEEL THE FORCE

The MIT Theater Guild brings “Star Wars” to the stage — with a twist.

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Covert to receive one of aviation's highest awards

Professor Emeritus Eugene E. Covert of aeronautics and astronautics is given recognition as one of the most prestigious awards in aviation: the Daniel Guggenheim Medal. The Guggenheim Medal, established in 1929, was first awarded to aviation pioneer Orville Wright. Over the ensuing years, recipients have included some of the greatest names in aerospace. Many have been MIT alumni, including Jerome Bonsukler (founder of MIT aeronautics), Donald Douglas, Charles Stark Draper and Robert Seamans.

Jointly sponsored by the American Institute for Aeronautics and Astronautics (AIAA), American Society of Mechanical Engineering, American Helicopter Society, and Society of Automotive Engineers, the medal recognizes individuals who have contributed significantly to advancing aeronautics. Covert’s award cites him for “exemplary leadership in aeronautics teaching and research, development of significant state-of-the-art aerodynamic testing techniques and outstanding contributions to public service.”

Covert will receive the medal at the AIAA Aerospace Spotlight Awards Gala in Washington, D.C., on April 10.

“Gene’s contributions to aero-space research, education and public service are equally profound and we’re thrilled he’s been honored with this highest form of recognition,” said Professor Wesley Harris, aero-astro department head. “The entire aero-astro department celebretes with him. Covert’s aeronautics career began in 1946 at the Naval Air R&D Flight Test Aircraft Division, where he worked on projects leading to the Sparrow missile. In the 1950s he conducted tests on numerous aircraft types, including the F-4 Phantom, at the MIT Transonic Aerodynamic Wind Tunnel. His interest in the problems of model support led him to develop the world’s first practical wind tunnel magnetic suspension system.

From 1972-77, Covert was chief scientist of the U.S. Air Force, and from 1978-81 he was technical director of the European Office of Aerospace Research and Development (EOARD). He was a consultant on the Space Shuttle main engine, and he was a member of the commission that examined the Challenger accident. Covert was appointed to the MIT faculty in 1963 and was aero-astro department head from 1985 until 1990. He lives in Cambridge with his wife, Mary Rutford Covert.

Deshpande Center awards $600,000

The Deshpande Center for Technological Innovation at MIT recently awarded $600,000 in grants to researchers working on such projects as growing human liver cells for drug testing and creating a new material for computer displays.

The grant winners this fall are not among the most exciting we’ve seen, but also will benefit from the success of those who have come before,” said Deshpande Center Executive Director Kristina Holly.

“Over the past three years, we have refined our process to provide the most effective support to innovators, starting with hands-on expertise at the very inception of a commercial idea.”

The fall 2005 grants bring to $5.5 million the total funding provided to 67 research teams at MIT since the Deshpande Center began its innovation support programs in 2002.

The Deshpande Center awards Ignition Grants to researchers who are in the early stages of determining the technical feasibility of breakthrough ideas, and Innovation Grants to teams that have already made significant academic progress and are on the cusp of applying their research to the most promising markets. The center awarded Innovation Grants to Associate Professor Sangeeta N. Bhatia of the Harvard-MIT Divi- sion of Health Sciences and Technology and of electrical engineering and computer science, for work developing human liver models for faster, safer drug development; Professor Clark Colvin of chemical engineering for work on technology that could help pinpoint early stage tumors; and Professor Lionel Kimerling of materials sciences and engineering and the Materials Processing and Micropho- tonics centers — with research associate Anu Agarwal — for low-cost multiplexed optical detection.

Ignition Grants went to: Professor Karen Gleason of chemical engineering for conductive material that could enable large-scale production of flexible displays and touch screens; and T. Alan Hutton, the Ralph Landau Pro- fessor of Chemical Engineering and director of the Dubl’ H. Koch School of Chemical Engineering Practice, for cat- alytic particles for rapid decontamination in carbon filters and clothing.

Benefits enrollment fairs scheduled

The annual open enrollment period at MIT will be Nov. 14 and run through Friday, Dec. 2. Enrollment guides will be sent by e-mail only to active employees; early retirees will receive guides by regular mail. Enrollment guides summarize each employee’s current benefit coverage and include changes to benefits and rates for 2006. Guides also include instructions for making selections using Employee Self Service.

Employees who wish to maintain their current levels of coverage for next year do not need to do anything, unless they want to participate in a Flexible Spending Account, which requires re-enrollment each year.

To make changes or enroll in a Flexible Spending Account go to Employee Self Service at web.mit.edu/sapweb/PSL/home.html and click on the Open Enrollment tab. The system is a secure web service that operates best with the Internet Explorer browser.

Early retirees (under age 65) will receive their enrollment guides by regular mail in early November. They will not be sent anything to do anything to maintain current benefit plans. Early retirees are invited to attend one of the benefits fairs scheduled between Nov. 15 and 21 to meet representatives from the health plan, dental plan and life insurance plan. Benefits Office staff also will be on hand to answer questions.

The Benefits Office asks anyone who does not receive an enrollment guide by Nov. 15 to e-mail openenroll2006@mit.edu or call the campus Benefits Office at x3-5100. Further information on open enrollment fairs will be held at the Student Center, Mezzanine Lounge on Nov. 15 from 10 a.m. to 2 p.m.; at Bates Library on Nov. 17 from 2 to 3 p.m.; and at the Student Center, Conference Room A, on Nov. 17 from 11 a.m. to 11:45 a.m.

...continued on next page...
Teams gather for genetic engineering competition
Deborah Halber
News Office Correspondent

More than 150 students and instructors from 3 universities across North America and Europe convened at MIT last weekend to unveil their biological designs at the 2005 International Genetically Engineered Machine (iGEM) competition.

The teams worked all summer to design and build engineered biological systems, often using uncharted, manageable biological parts called BioBricks. BioBricks have been made of biological materials that work as molecules inside living organisms.

With concessions made away from the competition as the declared winner, all the teams made progress in laying the foundation for the future of synthetic biology.

The new field of synthetic biology involves taking apart the stuff of life and reassembling it so it can be reused easily in potentially useful ways, said Drew Endy, assistant professor of biological engineering, said that the successful development of foundational technologies such as BioBricks will make it much easier to engineer biological systems.

MIT senior research scientist Tom Knight, originator of the BioBricks system, likened BioBricks to standardized screw threads—a fundamental advancement, now taken for granted, in mechanical systems engineering.

“The goal of iGEM is to work with students to learn how to develop biology as a technology that can be used to engineer living systems that are useful in the context of process information and chemicals, construct materials and produce energy,” said MIT principal research engineer Randy Reetz, director of the MIT Registry of Standard Biological Parts and lead organizer of the 2005 iGEM competition.

Each team was recognized for its individual successes. For example, Davidson College was honored for its “SynapsAcres,” and Caltech was given “best use of transmogrified smiley faces.” MIT was noted for having the “most modest goal” and “least transportable visual aid.”

The awards panel noted that Berkeley’s cell-cell signaling project, through which DNA is used to send information between cells, could one day lead to a programmable bacterial “Internet.”

“Their project could have had a lot of progress,” Reetz said. “It’s still early in the process of developing the field, so it’s too early for us to comment on success so far.”

The iGEM participants were MIT, Berkeley, Caltech, University of Cambridge (U.K.), Davidson, ETH Zurich (Switzerland), Harvard, University of Oklahoma, Penn State, Princeton, University of California at San Francisco and University of Texas at Austin.

For more information, visit the competition and individual awards, visit the Jamboree at parts.mit.edu/iGEM.

The event was sponsored by Microsoft/MIT Karmas.

Hockfield talks on responsibility of universities
Sasha Brown
News Office

MIT’s primary responsibility to education and research is to serve to the nation and the world, and today the Institute continues to live up to that responsibility in the true spirit of its founder, William Barton Rogers, said President Susan Hockfield, delivering the Miller Lecture on Science and Ethics on Nov. 7.

Rogers believed that MIT’s Institute’s work should be to advance and develop science and then apply that knowledge to world problems. Hockfield said today, MIT's opportunities to enhance responsibilities of a research university are rare. She spoke of her commitment to advance knowledge in ways that will help human kind.

"It is through our mission of service that MIT meets its fundamental responsibilities as a university," Hockfield told the audience in Kirsch Auditorium.

"Our mission calls us to make the world a better place through education, innovation and power of example. This is what MIT has done with extraordinary success for nearly a century and a half," she said in the lecture titled "The University and Its Responsibilities," sponsored by the Program in Science, Technology and Society. Part of that mission is to "to augment the "integrative" independence and engagement with the world." She underscored the importance of a faculty governance in the pursuit of that mission.

She challenged the statement of John Henry Newman, who wrote in 1854 that research and teaching are distinct gifts not usually found in the same person. "If research and teaching are both necessary to knowledge in ways that will help human kind," she said.

In fact, research and education are mutually reinforcing, Hockfield said. "Today, the distinction of teaching and research is best exemplified in America and even more fully here at MIT," she said. MIT faculty members teach and perform world-class research, and 70 percent of MIT students do research as undergraduates through UROP, the Undergraduate Research Opportunities Program, Hockfield said.

The responsibilities of a research university are significant. In addition to training the next generation of leaders, MIT must advance knowledge "in ways that will serve humankind," Hockfield said. The Institute cannot "off the "ivory tower" idea of the university. "Our traditions are deeply connected to the world," she said.
included women performers like Siouxsie and the Banshees and just as quickly affected every other art form, from the-ater to film to dance, with the “do-ityourself” spirit. Eager to produce "cross experimentationation, using the wonderful motor of naïve-ty," Bauer moved from stage design into collaborative projects, curating exhibitions in multiple media and across multiple disciplines that have received wide critical praise. "All art is political. Curatorial practice means focusing on the importance of con- text, time and place in the perception of art. Curating is a way to explore politics with (All) language and to position art as a relevant voice in society," Bauer said.

Bauer has edited the international art magazine META and numerous publica- tions on the changing role of artists and the production of art in society. Primary among these changes is the role of the "artist-prince" — the status equivalent among artists of the isolated scientist-genius, as Einstein is often portrayed — and the rise of collaborative practices and new technologies. "You have to be very self-determined to work as an artist. As a child I spent many hours alone, reading and drawing. But I get more information and more fuel through collaboration. As I get older, with students, everyone we do is influenced by the accomplishments of others. To be bright means to be open to absorbing new information and able to make your own decisions," she said.

Her latest curatorial project is a box that’s so far outside the box of any estab- lished genre that even grumpy Johnny Rotten might be forced to a leathery smile. The project, a mobile trans-border archive, exists in "inSite05," a truck that looks like a breadbox on wheels. inSite05 travels from site to site in San Diego and in Tijuana, Mexico, offering books, pho- tographs, films, videos, and histories and online resources. "inSite05 introduces the diversity of existing archives to people in this highly charged border region," Bauer said. Bauer was educated at the Academy of Fine Arts in Hamburg, receiving a diploma with honor in visual com- munications/ stage design in 1987. Bauer is also a former artistic director of Künstler- haus (the House of Artists) in Stuttgart, Germany, and founding director of the Smithsonian Office for Contemporary Art, Oslo, Norway. Earlier this spring, she has recently curated include "Architectures of Discourse" (Bar- celona, Spain, 2001) and "First Story— Exhibition/New Narratives for the 21st Century" (Pforz, Portugal 2003).

Bauer is a co-curator (with Artistic Director Okwui Enwezor) of Documenta11, an exhibition of global contemporary art that takes place every five years.
Researchers explain why old habits die hard

Cathryn M. Delude
News Office Correspondent

Habits help us through the day, eliminating the need to strategize about each tiny step involved in making a froth-latte, driving to work and other complex routines. Bad habits, though, can be a visceral nightmare. Notoriously hard to break, they are devilishly easy to resume, as many reformed smokers discover.

A new study in the Oct. 20 issue of Nature, led by Ann Graybiel of MIT’s McGovern Institute, now shows why. Important neural activity patterns in a specific region of the brain change when habits are formed, change again when habits are broken, but quickly re-emerge when something rekindles an extinguished habit – routines that originally took great effort to learn.

“We knew that neurons can change their firing patterns when habits are learned, but it is startling to find that these patterns reverse when the habit is lost, only to recur again as soon as something kicks off the habit again,” said Graybiel, who is also the Walter A. Rosenblith Professor of Neuroscience in MIT’s Department of Brain and Cognitive Sciences (BCS).

The patterns in question occur in the basal ganglia, a brain region that is critical to habits, addiction and procedural learning. Malfunctions in the basal ganglia occur in Parkinson’s disease, obsessive-compulsive disorder (OCD) and many neurodegenerative disorders.

In the Graybiel experiments, rats learned that there was a chocolate reward at one end of a T-maze. When the rats were learning, the neurons were active throughout the maze run, as if everything might be important. As the rats learned which cues were associated with the reward, some neurons were activated in response to the task, the beginning and the end, but not habit patterns of the habit.

Then the researchers removed the reward, making the cues meaningless. This change in training thing in the maze became relevant again, and the neurons reverted to chattering throughout the run. The rats eventually stopped running (gave up the habit), and the new habit pattern of the brain cells disappeared. But as soon as the researchers returned the reward, these “habit” neurons were activated again.

In the last two years, studies have shown that habits are broken, but quickly re-emerge when something rekindles an extinguished habit.

Assessing the risks posed by future hurricanes is an important exercise, said Emanuel. For insurers, it is important to understand the implications of providing coverage for homes in hurricane zones.

“Katrina is the most expensive natural disaster in U.S. history,” Emanuel said, referring to the Aug. 29 hurricane that destroyed parts of the Gulf Coast, killed at least 1,200 people and left $125 billion of damage in its wake.

Since 1870, 223 hurricanes have hit the United States. Only 13 of those storms reached the Category 4 level of Hurricane Katrina. “More than one half of the damage is done by the top five events,” said Emanuel. In fact, 90 percent of all hurricane damage in the past 135 years has been caused by storms that are Category 3 or higher.

In recent years, many have speculated about the increasing number of Category 4 and 5 hurricanes. After Katrina came Rita and Wilma, both Category 3 hurricanes that hit the southern United States in September and October. Emanuel and his team created models of potential future hurricane behavior by examining historical hurricane records and examining the energy level a hurricane generates over its life.

The results were concerning, said Emanuel, but not immediately. “On a 50-year time scale from a U.S. point of view, it probably doesn’t mean anything at all,” he said. Only about one third of the storms over the Atlantic even make landfall. “The last two years have been more or less bad luck,” he said.

However, those who are interested in a quicker time frame – 50 years or the global effect – do need to worry, he said. “Although there are little implications for the U.S. in the next 50 years, there are more global implications.”

The full report of the study will be held Nov. 15 from 7 to 7 p.m. in Kirch Auditorium.

Professor David Jones of the Program in Science, Technology and Society (STS) and Meg Jacobs, Class of 1947 Associate Professor of History, will address the question: “What’s so Natural About Natu- ral Disasters?”
MIT gets Blue Gene supercomputer

Anne Trafton
News Office

Blue Gene," a new computer that will be MIT’s most powerful, will be dedicated on Thursday, Nov. 10. The computer will be used to explore advanced materials, protein dynamics (QCD) and other extremely demanding computations as part of a project directed by John Negele and William A. Coolidge Professor of Physics, the principal investigator for the Blue Gene project. The MIT Blue Gene computer will have tremendous impact on our research and is the principal investigator for the Blue Gene project. Dr. David Ahlborn, director of the program in medical and population genetics at the Broad Institute of MIT and Harvard, will lead the presentation, to be held in the MIT Museum’s Robotics Gallery at 5 p.m. Ahlborn is a lead investigator in the international Haplomap project, an effort to develop a multi-billion-catalog of the genetic diversity in the human genome sequence across human populations. The meeting will be followed by a discussion, • What would it mean for soci- ety’s perceptions of diseases such as schizophrenia, depression or obesity, if we were to discover specific genes predisposing individuals to these condi- tions? • What would it mean for our understanding of how and why individuals to different types of behavior, such as criminality or gambling? • What will it mean for health-care delivery if it becomes possible to tailor drugs to the genetic characteristics of individual patients?

A profile of Ahlborn’s work is slat- ed to appear in the Boston Globe on Nov. 15. The “Soap Box” series is hosted by MIT Muse- um Director John Durant.

NATIONAL SECURITY

Continued from Page 1

In an e-mail to the MIT community, President Susan Hockfield announced that the project will take place at 2 p.m. in Building W91. Attendees will include Michael Strayer (Ph.D. 1971), former director of the DOE Office of the Scientific Computing Research; Dmitri Kovtun, co-principal investigator and computing at the National Nuclear Security Administration at DOE; and of- ficials from MIT and IBM.

Anne Trafton
News Office

The MIT Police is offering to tag laptops, PDAs and other small elec- tronic devices with STOP tags, vis-ible deterents to theft. It takes up to 800 pounds of pres- sure to remove a STOP tag. And, if removed, the STOP tag leaves a tattoo reading “stolen property.” The MIT Police will assign tag items at a cost of $10 each on the following days Nov. 15: 11 a.m. to 1:30 p.m. in the Student Center lobby; Nov. 21 from 11:30 a.m. to 1:30 p.m. in Lobby 10; Nov. 27 from 11:30 a.m. to 1:30 p.m. in Lobby 10 and Dec. 1 from 11:30 a.m. to 1:30 p.m. in the Student Center lobby.

The annual America Recycles Day event will be held Nov. 15 from 11 a.m. to 2 p.m. in the TSMC Lobby. President Susan Hockfield will be informa- tion on Techno Trash and campus recycling, free samples of esophagus and liver, a mini- waste audit exhibit from the Stata of information on recycling in Cambridge, refreshments, music and more.

Corruption
Esther Dulko was incorrectly referred to an associate professor in an article in last week’s Tech Talk. She is a full professor. Tech Talk.

Health task force completes report

President Susan Hockfield announced yesterday that the Task Force on Medical Care and Insurance in the Workplace, appointed in September 2004, has completed its work. The task force was charged with provid- ing recommendations on MIT’s health-care and medical-insurance programs and evaluating access to and costs of care.

In an e-mail to the MIT community, Hockfield noted that the report’s clear that high-quality, accessible and affordable health care is a matter of great importance to the members of our commu- nity. While the task force makes a number of recommendations, it concludes that the basic model of health care and insurance that has been in place for several decades has served MIT very well.

Hockfield went on to say that she asked the task force to identify unique solutions, a hallmark of the haves and the have-nots," said ElBaradie in a statement. "As possible, we will have that cynical view around that world that you are creating the haves and the have-nots," said ElBaradie later in response to a question from Renata Rose, wife of the late David J. Rose, for whom the lecture series was named. “You cannot just say, ‘we are the good guys, trust us.’”

Erich P. Ippen

The Defense Advanced Research Projects Agency (DARPA) has awarded a 3½-year, $9.5 million project to Professor Ippen, who is the principal investigator for the Blue Gene Research Laboratory’s strengths in photonics, partic-ularly our world-leading efforts in femto- second-laser frequency-comb technology and nanotechnology. The work is funded by the Defense Sci- ence Office and the Microsystems Tech- nology Office of DARPA.

“Access to these conclusions, Lin wrote from electrical principal investigators are Franz X. Kärntner and Leslie A. Kolodziejski, both professors in MIT’s Department of Electri- cal Engineering and Computer Science. Ippen leads a multi-institutional team that includes collaborators at the University of California at Davis, and at a 3½- year, $9.5 million project to Professor Ippen of MIT, the principal investigator for the Blue Gene. Extremely fast, Blue Gene is also ef- ficient—a feature that is unique in complex computing and low energy consumption,” Negele said. “The single rack at MIT has the same processing power as a conventional cluster filling a large room and uses an order of magni- tude less peak power and air condi- tioning, heralding a new era of energy ef- ficient computing.” The project is funded by the U.S. Department of Energy (DOE). Ahlborn is the principal investigator for the Blue Gene project and a leading researcher in QCD. Negele said. “For the first time, our resources will be of the same magni- tude as our competitors in Japan, Ger- many, the U.K. and the RIKEN Center at Boulder, Colorado.”

The new computer will be used by many MIT physicists, including faculty, postdocs, graduate students and senior thesis stu- dents. It will help scientists build on work done by MIT Professor Frank Wilczek, who won the 2004 Nobel Prize in physics for work on asymptotic freedom.

DARPA names Prof. Ippen to lead $9.5 million project

The Defense Advanced Research Projects Agency (DARPA) has awarded a 3½-year, $9.5 million project to Professor Ippen of MIT, the principal investigator for the Blue Gene Research Laboratory’s strengths in photonics, particularly our world-leading efforts in femto-second-laser frequency-comb technology and nanotechnology. The work is funded by the Defense Science Office and the Microsystems Technology Office of DARPA.

lin discovered that adding the ions is unnecessary, because theoretically, shining a light of a particular frequency on the conducting polymer can activate the soliton. Without the extra weight of the added ions, the polymers could bend and flex much more quickly. And that rapid fire motion gives rise to the high-speed actua- tion, that is, the ability to activate a device. To arrive at these conclusions, Lin worked from fundamental principles to understand the physical mechanisms gov- erning conjugated polymers, rather than using experimental data to develop hypothe- ses about how they worked. He started with the Bloch-Slater equation, a bulkiness of quantum mechanics that describes how a single electron behaves (its wave func- tion). But solving the problem of how a long chain of electrons behaves was another matter, requiring long and complex analyses. This research was funded by Honda R&D Co. and the Defense Advanced Research Projects Agency/Office of Naval Research. 

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WANTED

AirPort card for older iBook (dual USB iBook G3). AirPort Extremes won’t work. brem@mit.edu

Physical/2D artist interested to collaborate in a 3- dimensional exhibit at Cambridge Art Asoc. Join photographer (Phil, I.U.A) and sculptor (Phil D. Prinsloo). Contact F. Brown at 781-326-9583 or fbrown@tiac.net.

MIT Tech Talk
Prof. Ellen T. Harris wins 2005 Kepes Prize

Ellen T. Harris, Class of 1949 Professor of Music, recently received the 2005 Kepes Prize from the Council for the Arts at MIT. The award, named for George Kepes (1906-2002), founder of the Center for Advanced Visual Studies, is given annually to a member of the MIT community whose creative work reflects the vision and values of Kepes, who was celebrated for his work exploring the relationships between art and science, and art and the environment.

Harris, who served as the Institute’s first associate provost for the arts from 1988 to 1996, is a musicologist working in the area of Baroque opera and vocal performance practice with a special emphasis on the music of Handel.

The award was presented by Juliet Kepes Stone, Gyor Kepes’s daughter, and Professor Alan Brody, MIT’s current associate provost for the arts, at the council’s 33rd annual meeting, held Thursday, Oct. 27, at Boston’s Ritz-Carlton Hotel.

The award citation commends Harris “for her extraordinary contributions to the arts at MIT as the first associate provost for the arts, during which time she shaped the integrated landscape of all the arts on campus, advocated fiercely for them and encouraged their growth.” She was also honored “for her remarkable scholarship as a musicologist bringing new dimensions to our understanding of the genius of Handel” and “for her own musicianship as a vocal artist with a repertoire that extends from before Mozart to the American popular song book.” In addition, the citation commended “her personal encouragement of all her colleagues, students and staff in all their creative endeavors.”

The Council for the Arts at MIT is a volunteer organization of MIT alumni and friends founded in 1972 to foster and support the visual, literary and performing arts at the Institute.

Arts council reflects on past, looks forward

MIT does art the way it does science: with an eye toward excellence and making an impact on history. Last week, 37 members of the Council for the Arts at MIT (CAMIT) convened for the organization’s 33rd annual meeting in a two-day event (Oct. 27-28) that underlined the progress the organization has made over the last three decades in creating an artistic atmosphere that bolsters MIT’s scientific community.

A volunteer group of alumni and friends founded in 1972, CAMIT has funded more than 1,500 programs and awarded more than $15.5 million in grants for art projects to students, faculty, alumni and staff over the years. The council also supports numerous campus activities, including Artists Behind the Desk and the Student Art Association, and funds free tickets for MIT students to the Boston Symphony Orchestra, Harvard Art Museums and the Museum of Fine Arts, among others.

The business meeting Oct. 28 included addresses by President Susan Hockfield and Provost L. Rafael Reif, reminiscences by Catherine “Kay” Stratton, first lady of the Institute from 1959-66, and a “state of the arts” address by Associate Provost for the Arts Alan Brody.

Hockfield, calling council members the “gardener” of art at MIT, noted that she was “surprised by the intensity, brilliance and magnitude of the arts at MIT.” She praised the arts faculty for their “attention and cleverness” and called on MIT to “serve the nation more fully” by raising the public profile of its programs.

The council meeting paid homage to its roots with the presence of founding members Stratton and former MIT Provost Leo Beranek, both nozzleicians, who described the series of conversations and meetings that led to the council’s formation more than 30 years ago. Stratton, a beloved figure in the MIT community, started the MIT Art Committee in 1961 when her husband, Julian A. Stratton, was president of MIT. Planning for what is now the council began in 1974 in talks between the committee and then-president Jerome Wiesner.

Brody observed that the strength of the arts and humanities at MIT has altered the student body because students no longer have to choose between rigorous scientific study and rigorous exploration of creative work.

Brody also told council members about two initiatives in the works that would put MIT at the forefront of supporting the development of plays about science: the Catalyst Collaborative, a local initiative between MIT and the Underground Railway Theater, and a new national consortium that would act as a floating center for the study of science, theater and narrative.

CAMIT Director Susan Cohen cited the need for facilities to support a strong arts program. In that light, Brody reiterated the need for funding for a proposed “Laboratory for the Performing Arts” with practice rooms and a black-box theater.

Administrators hope to use the council’s success to bring its scope to a national level. As Hockfield said, “The arts don’t stand still anywhere, and certainly not at MIT.”

Hughes sets ‘National Insecurity’ to music

Curtis K. Hughes, lecturer in music theory at MIT, and New Jersey composer David T. Little return to Killian Hall on Sunday, Nov. 13 as the curators of the second annual “National Insecurity” concert.

Their theme, once again, is contemporary political music. “This time we have a marathon lineup with about 20 musicians coming from out of town and about three hours of music,” Hughes says. The program features socially relevant music by young composers, including Dennis DeSantis, Sophocles Papavasilopoulos, Judd Greenstein, Missy Mazzoli and Keerrl Makan, as well as by political music veterans John Halle and Frederic Rzewski. The show will also include music by Little and Hughes.

Joining in this year’s concert is Free Speech Zone, an ensemble that fuses art music with political thought, as well as a return of the NOW Ensemble, which presents works by emerging composers.

A special performance by the Boston/Tucson-based saxophone and percussion duo Not Zero will open the concert. The free concert is at 3 p.m. For more information, call (617) 899-8238 or visit www.nationalinsecurity.net.

Arts News

Jazz magazine quotes Harris

MIT and its jazz ensembles are featured in an article on jazz on four American college campuses in the Octo-

ber issue of Jaztime magazine. The story, which outlines the history of jazz at MIT since students formed the MIT Jazz Society in 1950, quotes Frederick Harris, director of wind ensembles since 1990. “At MIT everything is taught through a hands-on approach … These students are building robust, doing internships at NASA, and so on. When they take on a subject like jazz, they want to get their hands dirty right away. And they want to work at the highest level possible.”

Awakenings

“Waken,” an installation of speakers and tendon-like materials created by artists Beth Coleman, assistant profes-
sor of writing and new media in the Program in Writing and Humanistic Studies and Comparative Media Studies, and Howard Goldotrain, will be presented as part of the “Fresh Projects: Shimmer” exhibition at the New Museum of Contemporary Art in New York from Nov. 10 to Dec. 31. Built across a network of signals to produce a gentle cacophony of sound, “Waken” uses a generative code that emulates the movement of bees in nature, creating what the artists call a sonic prairie, characterized by diversity, accident and spontaneous growth.
MIT EVENT HIGHLIGHTS

**NOVEMBER 9-13**

**Science/ Technology**
- MIT Tech Talk
- AKPIA Lecture by Glaire Cordoba
- D. Tonyan. 12:30–2 p.m.
  - 11:30 p.m. 258-9754.
- Money Museum at noon on Wednesday, Nov. 16.
- Deborah Douglas is surrounded by slide rules, MIT Museum science and technology curator.

**Performance**
- “LEOCADIA”
  - Drama shop production of play by Jean Anouilh. Nov. 10-12 and 17-18, 58, 56 students.

**Architecture/ Planning**
- “STAR WARS TRILOGY” MUSICAL
  - Nov. 11-13 and 16-20, $12, 59 students, seniors, MIT faculty/staff, 56 MIT students.
  - Most performances at 8 p.m., 2 p.m. on Nov. 13 and 20.

**Humanities**
- “NATIONAL INSECURITY II”
  - The second annual marathon concert of political music.
- Killian Hall
  - 3 p.m.

**Business/ Money**
- **EDITOR’S CHOICE**
  - “LEOCADIA”
  - Drama shop production of play by Jean Anouilh. Nov. 10-12 and 17-18, 58, 56 students.

**Music**
- “STAR WARS TRILOGY” MUSICAL
  - Nov. 11-13 and 16-20, $12, 59 students, seniors, MIT faculty/staff, 56 MIT students.
  - Most performances at 8 p.m., 2 p.m. on Nov. 13 and 20.

**Sports**
- **EDITOR’S CHOICE**
  - “LEOCADIA”
  - Drama shop production of play by Jean Anouilh. Nov. 10-12 and 17-18, 58, 56 students.

**Special Interest**
- **EDITOR’S CHOICE**
  - “LEOCADIA”
  - Drama shop production of play by Jean Anouilh. Nov. 10-12 and 17-18, 58, 56 students.