Volume 50 – Number 24
Wednesday – April 26, 2006

TechTalk
SERVING THE MIT COMMUNITY

Nokia Research Center Cambridge opens

Advancing the vision of mobility while developing real-world applications, MIT and Nokia today announced the opening of the Nokia Research Center Cambridge on Friday, April 21.

The joint research facility, a collaboration between Nokia Research Center and MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL), brings researchers and scientists from MIT and Nokia together to develop high-impact research to create the state of the art in communications technologies.

"Our mission is to explore and develop technologies that will be available in the marketplace in five to 10 years — not just novelties, but technologies that will see mass–market demand from consumers and enterprises," said Bob Iannucci, head of Nokia Research Center. "With MIT's academic and research expertise, Nokia's mobility and technology leadership, and the fusion of some of the world's brightest minds, the Nokia Research Center Cambridge will provide a platform for delivering compelling new innovations."

The center is currently focusing its research on several projects, each part of a larger vision in which mobile devices become elements of an "ecosystem" of information, services, peripherals, sensors and other devices. These projects revolve around enhancing people's lives and productivity by enabling more intuitive interaction between individuals, machines and environments, and range from developing the underlying computer architecture to leveraging and extending the Semantic Web. Although not commercially available today, projects like those under way could likely become real-world applications within the next decade.

Specific projects include:

• Project **Simone** addresses new ways to interact with your mobile device primarily using speech.

• **MobileStart** provides a framework for task-oriented applications that interact via written language on the mobile device.

• **MyNet/UIA** develops a way for different users to connect various devices to each other and across the Internet easily and securely.

• **Asbestos** explores the use of new operating systems mechanisms for information flow control to prevent private information from being inadvertently shared or maliciously exposed.

• **SwapMe** develops a platform for Semantic Web applications that are policy, preference and context aware.

• **ComposeMe** provides mechanisms for verifying interoperability of Web services.

• **Armo** explores new design methodologies and languages to enable the development of high-performance, energy-efficient hardware for mobile devices.

"Our collaboration with Nokia and the subsequent opening of the Nokia Research Center Cambridge is an exciting opportunity for all parties, including the CSAIL research team," said Professor Rodney Brooks, director of the MIT CSAIL Lab. "Not only do we have the opportunity to work on truly compelling research with Nokia's highest-caliber researchers, but —

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NCI head gives talk

Funding young researchers remains an important focus for the National Cancer Institute, even though the federal group's budget has remained flat the past few years, the acting head of the NCI told students and faculty of the MIT Center for Cancer Research on Friday, April 21.

"We need to think of cancer and cancer development in a broader context, not just as a tumor," said Dr. John Niederhuber, deputy director for translational and clinical sciences and interim head of the NCI.

"We need to … see changes in the pathway of a cell to predict cancer. And you will be the ones who will be able to do this," he told a packed room of faculty, postdoctoral associates and students in his talk about the frontiers of cancer biology.

Dr. John Niederhuber

Hot areas of research now, according to Niederhuber, are the microenvironment around the tumor and cancer stem cells that accumulate genetic alterations over a lifetime and renew themselves to establish cancer in a given tissue.

"We've directed money toward collaboration rather than big science," he said. "MIT is a classic example of bringing together people from chemistry, engineering and computer science — people who are not normally involved in cancer research — to work with biologists and clinicians. From that, exciting things can bubble up."

Another area of strength at MIT that Niederhuber emphasized was nanotechnology. Nanotech platforms can be used

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Engineering solutions in Louisiana

PHOTO / **MARGARET AVENER**

Civil and environmental engineering senior James Vanzo draws water samples from Lake Pontchartrain, which borders New Orleans, during spring break. Vanzo was one of eight undergraduates who conducted research on water quality as part of Laboratory Course 1.107.

Students spend break studying lake sediment

Sasha Brown
News Office

Eight civil and environmental engineering undergraduates in Laboratory Course 1.107 spent their spring break on Lake Pontchartrain in hurricane-ravaged Louisiana doing research that may eventually contribute to minimizing the health effects of Hurricane Katrina and other disasters like it.

After Katrina struck New Orleans on Aug. 29, several sections of the levee system collapsed, flooding more than 80 percent of the city. The city pumped much of the floodwater into Lake Ponchartrain, which borders the city on the north.

The MIT students traveled to New Orleans to study the lake's sediment. They were accompanied by Associate Professor Martin Polz, Professor Heidi Nepf of civil and environmental engineering (CEE) and lecturer Sheila Frankel, research associate and associate director of the Ralph M. Parsons Laboratory.

Teaching assistant Dana Hunt, a Parsons graduate student, and three former members of Frankel's TREX field research program also accompanied the group. The students' travel and living expenses were paid for by a grant from the Kurtz Family Foundation given to the MIT President's Office for Hurricane Katrina relief.

The MIT students stayed at Southeastern Louisiana University (SLU) for the week collecting sediment and water samples as well as background chemistry measurements and E. coli counts. The samples were sent back to MIT where they will be studied for traces of

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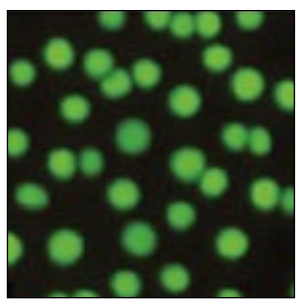

CELLS IN 3-D

A new technique makes it possible to study cell tissue organization in 3-D as never before.

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Kaiser receives Edgerton Award

Deborah Halber
News Office Correspondent

David Kaiser, associate professor of the history of science for the Program in Science, Technology & Society (STS) and lecturer in the Department of Physics, received the 2005-2006 Harold E. Edgerton Faculty Achievement Award at the April 19 faculty meeting.

The faculty also heard revised family care policies, heard a report from the Committee on Discipline and reviewed the slate of nominees to faculty committees for the coming academic year.

The Edgerton award, a tribute to the late beloved inventor/photographer "Doc" Edgerton, recognizes exceptional distinction in teaching and research or scholarship in junior untenured faculty members.

Karen R. Polenske, professor of urban studies and planning and chair of this year's Edgerton Award Committee, made the announcement.

In her remarks, Polenske noted that she enjoyed Kaiser's recent book, "Drawing Theories Apart: The Dispersion of Feynman Diagrams in Postwar Physics," even though she is not a physicist, and that some of the diagrams reminded her of plans for shipping coal in China and railway lines in the Gulf Coast.

Kaiser completed Ph.D.s in physics and the history of science at Harvard University in 1997 and 2000, respectively. His physics research focuses on early-universe cosmology at the interface of particle physics and gravitation. His historical research focuses on changes in American physics after World War II, looking at how the post-war generation of graduate students was trained. Kaiser said he was "deeply honored and pleased" about the award, and also surprised, because his colleagues had brought him to the faculty meeting under false pretenses.

Family care policies

Lotte Bailyn, professor of management at the MIT Sloan School of Management, described revised faculty policies for family care. The Academic Council in 2001 approved three new family policies intended to help MIT faculty have productive careers while keeping up with their family responsibilities.

A tenure clock extension was instituted to make it possible for women faculty to bear children without losing the opportunity for tenure. In 2001, 52 percent of the women in the School of Engineering had children, while nationally, 82.5 percent of women age 40-44 had borne a child. At MIT in 1990, 82 percent of the male faculty had children, compared with 53 percent of the female faculty, according to a report of the Ad Hoc Committee on Family and Work, indicating that women faculty at MIT faced more constraints than male faculty in the choice to have children.

David Kaiser

After a five-year review of the policies was completed in February, the committee recommended minor changes in wording and one substantive change, Bailyn said.

As before, any woman on the faculty who bears a child during her probationary period will have her tenure clock automatically extended by one year. The committee's substantive change was in adding a new possibility for women faculty who bear children: Upon request, they will be

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Sloan mentoring program pairs undergrads with MBA candidates

Diana Chaban Griffith
MIT Sloan School of Management

MBA students typically bring a wealth of experience to school with them. At the MIT Sloan School of Management, undergraduates can benefit from that resource through the Sloan Undergraduate Management Association's MBA-Undergraduate Mentoring Program.

"We are trying to bridge that gap between MBAs and undergraduates," said senior Noelle Kanaga, the Sloan Undergraduate Management Association (SUMA) Class of 2006 representative. Kanaga, who served as one of this year's program coordinators, said the program has offered her and other undergraduates a way to get to know their MBA counterparts.

"We do have classes in the same room, and that helps a little bit. But you don't typically interact with them; you're not in the same dorm or house with them," she said. "It's just a different level, because they've had so much more experience, and they've gained so much more insight on the world than we have at this point."

SUMA began the mentorship program three years ago to tap into that insight, and in that time the program has grown into a successful part of the undergraduate experience.

"This year we had a record number of participants," said sophomore Jenny Chen, director of marketing for SUMA and project manager for the MBA-Undergraduate Mentoring Program. "Sixty-six MBA students offered to serve as mentors, and 80 undergraduates registered as mentees," she said. All undergraduates were paired with mentors, with many mentors agreeing to help two students.

PHOTO / **DIANA CHABAN GRIFFITH**

Senior Noelle Kanaga, a coordinator for the MBA-Undergraduate Mentoring Program at MIT Sloan poses on campus with Brian Duncan, who was her mentor last year.

Kanaga's mentor from last year, Brian Duncan, said he felt called to volunteer because mentoring has played an important role in his life. "I've always found a lot of power in my life through being able to communicate with people not only of different backgrounds but also different ages," he said.

The voice of experience

Students can and do talk about anything with their mentors, including how to handle interviews, search for summer placements, and make long-range career choices. Chen's last mentor, Tony Xu, met with her several times to help her with her internship search. "It was really great to hear about the financial services industry from his point of view. He has also helped me to understand what I'm looking to do after college."

Kanaga turned to her mentor for help weighing two attractive job offers. "At some point it's hard to go to your parents or a friend who doesn't really understand the industry, doesn't really understand the difference between two opportunities, so he was really able to provide some insight for me."

For their part, the mentors say they gain as much from the program as the undergraduates they work with. Duncan, who's 36, said he appreciates the chance to soak up some of the youthful energy and idealism that Kanaga and her classmates have.

"There are things you lose as you work longer, as you get older, like you lose that kind of rosy-eyed look at the world and you don't have the idea of, 'I'm going to change the world,'" Duncan said. Through mentoring, he said he's been able to reconnect with that idealism.

"I may not think I can change the world anymore, but I can change my little piece of it, I can make my little piece better," he said.

To learn more about the MBA-Undergraduate Mentoring Program, contact the SUMA Executive Committee at sumaec@mit.edu or visit http://web.mit.edu/suma/.

Candace Royer named senior associate dean

Sarah H. Wright
News Office

Candace L. Royer, head of MIT's Department of Athletics, Physical Education and Recreation (DAPER)/director of athletics, has been named senior associate dean in the Division of Student Life, Larry Benedict, dean for student life, announced Tuesday, April 18.

Royer, who has served as director of athletics since 2001, will assume her new role on Feb. 1, 2007, following a six-month sabbatical leave beginning Aug. 1.

"I look forward with vigor to continuing to support DAPER, the dean of student life and MIT in any way possible," Royer said.

Candace Royer

Royer came to MIT in 1981. Her 14 years in coaching and teaching and her 11 years in administration have been "extremely rewarding," she said.

"I am gratified by the department's support, dedication, industry, creativity and perseverance as we serve our central mission of providing programs and enhanced fitness, sport and recreational activities across MIT's campus community," Royer said.

Benedict's statement to the MIT community focused on Royer's experience, dedication and leadership on behalf of DAPER and the MIT community as a whole.

"I extend my sincere thanks for a job well done and I look forward to working with her in this new, exciting and challenging role," Benedict said.

"Under Royer's leadership, DAPER has made significant strides, including the completion and implementation of the department's strategic plan, the opening of the Zesiger Sports and Fitness Center, and two very successful Visiting Committee visits.

"We have seen the best community and student satisfaction ratings in the history of this department. During her tenure, the endowments have increased as has annual giving. I am most gratified by these successes and others that are too numerous to mention," he wrote in a letter to the MIT community.

As senior associate dean, Royer will focus initially on fund-raising efforts for DAPER. Ultimately, she will be responsible for the development and implementation of the strategic fund development plan for the entire Division of Student Life. She will continue to hold an associate professorship in physical education, Benedict said.

Royer will also collaborate with staff in Resource Development, the Alumni Association and the faculty and staff of DAPER to develop a comprehensive strategic plan for fund raising and will lead the implementation of this plan.

A national search for a new director of athletics/ DAPER department head will be launched immediately.

For fuller text, visit web.mit.edu/newsoffice/2006/royer.html.

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AAAS names 3 fellows from MIT

Sarah H. Wright
News Office

Three MIT faculty members — two acclaimed labor economists and an expert in chemical sensors for explosives detection — were elected fellows of the American Academy of Arts and Sciences on Monday, April 24.

The new MIT fellows are Daron Acemoglu, professor of economics; Joshua Angrist, professor of economics; and Timothy Swager, department head and John D. MacArthur Professor of Chemistry. They will be honored at an induction ceremony on Saturday, Oct. 7, at the academy's headquarters in Cambridge.

Academy fellows are "outstanding leaders in their fields, selected through a highly competitive process that recognizes individuals who have made preeminent contributions to their disciplines and to society at large," said academy President Patricia Meyer Spacks.

The 2006 MIT inductees were among 175 new fellows and 20 new foreign honorary members. This year's new fellows include former Presidents George H.W. Bush and Bill Clinton; Nobel Prize-winning biochemist and Rockefeller University President Sir Paul Nurse; the chairman and vice chairman of the 9/11 Commission, Thomas Kean and Lee Hamilton; and actor and director Martin Scorsese.

Fellows and foreign honorary members are nominated and elected to the academy by current members.

Founded in 1780 by John Adams, James Bowdoin, John Hancock and others, the academy has elected as fellows and foreign honorary members influential leaders from each generation, including George Washington and Ben Franklin in the 18th century, Daniel Webster and Ralph Waldo Emerson in the 19th, and Albert Einstein and Winston Churchill in the 20th. The current membership includes more than 170 Nobel laureates and 50 Pulitzer Prize winners.

PHOTO / **DONNA COVENEY**

MIT Museum gets physics-al

Deborah Douglas, science and technology curator at the MIT Museum, demonstrates the use of an organ pipe, one of MIT's oldest physics instruments. It was used to teach acoustics, which was part of the physics curriculum in the 19th century.

Panel explores LGBT experience at MIT

Sasha Brown
News Office

Although it has not been an entirely easy road, MIT has always been one step ahead in terms of accepting differences, a panel of gay, lesbian and transgender alumni told a crowd gathered in Building 34 on Thursday, April 20.

The seven MIT alumni from the 1970s, '80s and '90s were on campus as part of the "Gay in the Day: The LGBT Experience Throughout the Years" panel sponsored by BGALA, MIT's Bisexual, Gay, Lesbian and Transgender Alumni and the MIT Alumni Association.

Kathryn Willmore, vice president and secretary of the MIT Corporation, moderated the panel.

"MIT is a great meritocracy," Willmore said, responding to a question about why MIT has been so ahead of the curve on equality issues. "Students who come to MIT earn their way in. People are taken more for who they are than their name or pedigree."

Willmore spoke about her early days working at the Institute (when only 2 percent of the faculty and 4 percent of the undergraduates were women), the strength of the women's community in the 1970s and coming out as a lesbian in the 1980s.

She provided a timeline of the lesbian, bisexual, gay and transgender (LGBT) experience at MIT, a project she said "brought back a lot I had not thought about in years," noting that in the 1970s Tech Talk was restrictive about what roommate ads it would run.

In contrast, in 2004, Tech Talk ran a full-page feature article on lesbian and gay members of the MIT community who got married after same-sex marriage became legal in Massachusetts.

The timeline began with the founding of the Students Homophile League (SHL) in 1969 — one month before the Stonewall riots in New York City, which were considered a major turning point in the struggle for homosexual equality.

SHL was co-founded by Stan Tillotson (S.B. 1971) and Irv Englander (S.M. 1970 and Ph.D. 1978), both of whom were panelists in last Thursday's discussion.

"For gay students at that time, there wasn't anything to do socially," Tillotson said. SHL was open to students from Harvard, Boston University and other local schools that did not have similar groups.

"When I started at MIT, I was out to myself, but not publicly," said Englander.

The group was responsible for many of the changes that took place during the 1970s at MIT, including the first dance for homosexuals. Students themselves helped bring about these changes, with the assistance of supportive administration members, according to panelist Stewart Landers (S.B. 1978).

"We were very conscious of the need to make progress," Landers said. "It was a political time at MIT."

During Landers' time at the Institute, Physical Plant (now Facilities) installed a glass case to protect SHL's posters from being torn down.

Panelist Wilson Wong (S.B. 1989) spoke of gay students starting to attend the MIT dorm parties. "We all had to pay the student dormitory fees that paid for those parties, so we decided we should be able to attend them."

Now, more than 35 years later, a person walking the halls, classrooms and cubicles of the MIT campus would notice small cards with rainbows stating, "You are welcome here" provided by Lesbian, Bisexual, Gay and Transgender at MIT (LBGT), one of many groups at MIT dedicated to promoting equal rights.

Panelist Marissa Martinez (S.B. 1983 and S.M. 2002) came out as a lesbian during her first stint as an MIT student, an experience she called "the scariest and most lonely moment of my college career." Martinez read excepts from a memoir she is working on about her time as an undergraduate at MIT.

"Things have changed a lot over the years," Martinez said.

Other alumni panelists in the April 20 discussion were Lee Swislow (S.B. 1971) and Hudson Nummerdor (S.B. 1994).

Faculty members elected to NAS

Elizabeth Thomson
News Office

Three MIT faculty members are among the 72 newly elected members and 18 foreign associates of the National Academy of Sciences — an honor that recognizes their distinguished and continuing achievements in original research.

Election to membership in the National Academy of Sciences (NAS) is considered one of the highest honors in American science or engineering. Those elected on Tuesday, April 25, bring the total number of active members to 2,013.

The NAS is a private organization of scientists and engineers dedicated to the furtherance of science and its use for the general welfare. Established in 1863, it acts as an official adviser to the federal government, on request, in any matter of science or technology.

The new NAS members from MIT are:

Edward H. Adelson, professor of vision science in the Department of Brain and Cognitive Sciences and the Computer Science and Artificial Intelligence Laboratory.

Adelson's research is in human visual perception, machine vision and image processing. Motion perception is of special interest, as are a number of basic mechanisms that are common to the analysis of motion, texture and color.

James G. Fujimoto, a professor in the Department of Electrical Engineering and Computer Science and the Research Laboratory of Electronics.

Fujimoto's research interests include studies of ultrafast phenomena, biomedical optics and biomedical imaging. His research group invented and developed a new medical imaging diagnostic technique that can produce high-resolution images of tissue microstructure and pathology in real time, without the need to remove and process specimens.

Terry L. Orr-Weaver, member of the Whitehead Institute for Biomedical Research and professor in the Department of Biology.

Orr-Weaver investigates the mechanisms that control the sequence of events during which a cell replicates its DNA and divides in two. Studies in her lab have illuminated fundamental aspects of this process and shed light on a broad range of diseases caused by breakdowns in cell division, including cancer and some birth defects.

Researcher makes call to help wildlife

Sarah H. Wright
News Office

Dale Joachim, an electrical engineer whose research on acoustic sensor systems could significantly improve both wildlife monitoring and musical understanding, has been named a Martin Luther King Jr. Visiting Professor for 2006-2007.

In his studies of communication among birds, Joachim applies sensor and signal processing methods to "something very dear to me — nature conservancy," he said.

Dale Joachim

Currently, wildlife biologists monitor populations of some bird species by standing in the birds' habitat, replicating particular birdcalls and logging and analyzing the responses they get. Joachim hopes to establish an encoded form of birdcalls suitable for remote cell phone broadcast. Once programmed to broadcast birdcalls, the cell phones will also serve as channels, sending the birds' responses back to a home base for logging and analysis.

Joachim has focused initially on the conservation of swallow-tailed kites — birds native to Louisiana whose population is "being decimated by great horned owls," he said.

Success in his research could lead to federal certification of cellular telephones for use in conservation monitoring programs, Joachim said.

Joachim also studies the cognitive processes involved in accurately recognizing specific chords within musical compositions. He hopes to develop intelligent systems to automate musical chord transcription and, ultimately, to "emulate a human bass player's understanding sufficiently well to play a coherent bass line accompaniment," he said.

"We are extremely happy to have Professor Joachim join us as an MLK Jr. Visiting Professor. His teaching and his research interest in the use of technology for wildlife monitoring should lead to a very effective stay here," said Michael Feld, professor of physics and co-chair of the MLK Jr. Celebration Committee.

For fuller text, visit web.mit.edu/newsoffice/2006/mlk-joachim.html

MIT method allows 3-D study of cell tissue organization

MIT bioengineers have devised a new technique that makes it possible to learn more about how cells are organized in tissues and potentially even to regrow cells for repairing areas of the body damaged by disease, accidents or aging.

The method gives them unprecedented control over organizing cells outside the body in three dimensions, which is how they exist inside the body. It uses electricity to move cells into a desired position, followed by light to lock them into place within a gel that resembles living tissue.

Cells traditionally have been studied in two dimensions in a Petri dish, but certain cells behave differently in two dimensions than in three.

"We have shown that the behavior of cartilage cells is affected significantly when they are organized in 3-D," as is the behavior of other types of cells like stem cells, said MIT Associate Professor Sangeeta Bhatia of the Harvard-MIT Division of Health Sciences and Technology (HST), one author of a paper on the technique due to appear in the May issue of Nature Methods.

"This raises questions about how cells might sense their organization in 3-D and how important this might be in other tissues," said Dirk Albrecht, a postdoctoral associate in Bhatia's lab and lead author of the paper. "We now have a method to answer some of these questions in the lab."

Scientists have until now studied cells in 3-D by placing them randomly into a gel. The cells clump together into "cell spheroids," but that is a slow process, and the size and shape of the cell clumps vary significantly. In addition, cells that communicate by direct contact can end up too far apart.

The new technique allows for precise control of cell organization, and takes minutes to perform compared to hours or days for the other method.

Albrecht and his colleagues have been using a micropatterning technique to carefully position the cells within about 10 microns of each other. That's nearly the diameter of a cell and about one-fifth the diameter of a human hair. The technique uses a device made with photolithography, the same process used to create circuit patterns on electronic microchips.

In the paper, the MIT researchers said they have formed more than 20,000 cell clusters with precise sizes and shapes within a single gel. They have since scaled that up several fold. They also have created layers of different cells, attempting to mimic the structure of tissue inside the body.

While the technique may one day be applied to engineer tissues for medical applications, its first use will be for basic research on how cells are organized, how they function and communicate in tissues, and how they develop into organs or tumors. The 3-D organization of cells also may help researchers understand how cells respond to drugs when they are in a normal state compared to a diseased state like cancer.

"We also think this technique will be useful for building engineered tissues in specific ways," Bhatia said. "It wasn't possible until now to get this degree of control over cells in 3-D."

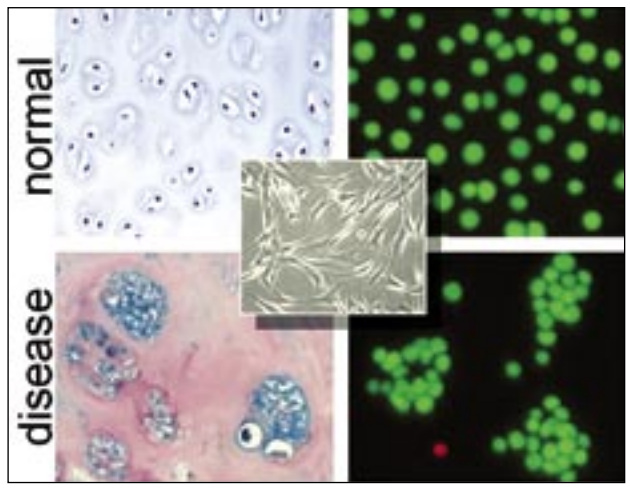

PHOTO COURTESY / **SANGEETA BHATIA LAB**

Cells are organized differently in normal and diseased cartilage (left). Now these changes can be made and studied in the lab. Here, 3-D cell clusters are precisely re-created in a tissuelike gel (right). The same cells in a conventional 2-D Petri dish look and behave much differently (inset).

Other authors on the paper are MIT HST postdoctoral fellow Greg Underhill, University of California at San Diego Professor of Bioengineering Robert Sah and UCSD alumnus Travis Wassermann.

The authors have applied for a patent on their work.

The research was funded by The Whitaker Foundation, the National Science Foundation, the National Institutes of Health, the David and Lucille Packard Foundation and NASA.

Lazy eye theory gets a workout

Deborah Halber
News Office

In a study that challenges conventional thinking about the condition known as lazy eye, researchers at MIT's Picower Institute for Learning and Memory show that it's the quality, not the quantity, of images and light striking the retina that causes one eye to lose function.

The study will appear in the May issue of the Journal of Neurophysiology.

Amblyopia, or lazy eye, is a developmental disorder characterized by poor or blurry vision in an eye that is structurally normal. The problem is caused by either no transmission or poor transmission of visual images to the brain for a sustained period during early childhood. Amblyopia has been estimated to affect 1 percent to 5 percent of the population.

"It's been known for a long time that if you are born with cataracts in one eye, you will go blind in that eye," said study co-author Mark Bear, Picower Professor of Neuroscience. "Depriving one eye of crisp images rapidly causes cortical neurons to lose responsiveness to the deprived eye."

While it was thought that inactivity caused the neurons associated with the deprived eye to wither — a case of "use it or lose it" — Bear and colleagues at Brown University report that a blurry image is worse than no image at all.

The conventional treatment for lazy eye is to wear a patch over the good eye in the hope that the weaker eye will get stronger. "It's a zero-sum game," Bear said, "because as the weak eye gets stronger, the strong eye gets weaker. The challenge is to promote recovery of the weak eye without impairing the other eye."

Clinicians have debated the value of allowing some light to penetrate the patch to activate neurons in the retina. However, Bear's new results indicate that the best way to preserve connections from a patched good eye is to eliminate as much activity in that eye as possible.

In the study, the researchers tested vision in animal subjects with normal vision, comparing two days of lid closure in one eye with two days of blur using an overcorrecting contact lens. They found that the overcorrecting contact lens was just as bad as closing the eyelid for weakening connections in the developing brain.

This work is supported by the National Eye Institute and the Howard Hughes Medical Institute.

PHOTO / **DONNA COVENEY**

Junior Margaret Avener and Associate Professor Martin Polz count colonies of E. coli in a culture. The two were preparing for their spring break trip to New Orleans to test water there.

NEW ORLEANS

Continued from Page 1

heavy metals and pathogenic bacteria.

These bacteria, specifically E. coli and Vibrio, a family of bacteria that includes cholera, can be dangerous to humans. "Most seafood-related deaths are Vibrio," Polz said.

Bacteria are typically present in sediment, but large wind events can disturb the sediment, causing the bacteria to seep into the water supply. "There were reports of (Vibrio-related) deaths," Polz said.

Unfortunately, not much biological analysis was available from before the storm, Polz said. Without data from before Katrina, it is hard to ascertain what is "normal," he said.

The MIT students specifically sampled areas differentially affected by the hurricane, thus their work may help to provide some of the basis for future work and monitoring of the lake. Moreover, their work integrates with a National Science Foundation-funded study, which Polz is part of, studying the effect of Hurricane Katrina on the lake ecosystem.

Samples have been collected since mid-September, and this data did provide the students with some foundation for their work, said Frankel.

The students spent the first half of their semester studying the lake and surrounding region. Nepf lectured on the lake physics and ways to calculate how long the water had been in the lake. She also helped the students to measure sediments.

Polz discussed aquatic microbiology and led the investigation of Vibrio presence in the lake. Frankel and Philip Gschwend, CEE associate department head and director of the Parsons lab, lectured the students on aquatic chemistry and Frankel supervised the collection and analysis of sediments for trace metals, particularly lead and chromium.

Stormwater drainage from New Orleans has been pumped into the lake for more than a century and these toxic metals are the legacy of this drainage, Frankel said.

The students learned how to plan a field experiment. They researched previous studies and mapped the lake and created their own research plan. "It was very different to plan our own project," said Lindsay Sheehan, a junior CEE major. "I had the biggest grin on my face the whole time we were on the boats because we were finally doing what we had planned for half the semester."

"It was really amazing to see how the stuff we study in class is done in the real world," said junior Tasneem Hussam of CEE.

The students worked alongside graduate-level researchers at Louisiana State University (LSU) and SLU. SLU Professor Gary Childers and Chris Schultz, graduate student and research associate, helped out, lending use of their facilities and boats. "We felt like we were part of a big Southern family," Frankel said. "Everyone was so wonderful to us."

All told, the students collected 43 sediment samples and 100 bacterial cultures that they packed in dry ice and shipped back to MIT. The students will spend the second half of their semester in labs analyzing and studying their findings.

They will present their results during a Parsons Lab aquatic sciences seminar on Wednesday, May 17. "The students will also communicate their results to our Louisiana partners," Frankel said.

For more information, visit web.mit.edu/parsonslab/newor/index.html

NCI

Continued from Page 1

for the early detection of cancer, he said.

Last October NCI announced funding to establish seven multi-institutional hubs across the nation that will integrate nanotechnology across a broad array of cancer research projects and aim for new solutions to diagnose and treat cancer. Among them is the MIT-Harvard Center of Cancer Nanotechnology Excellence.

The nanotechnology initiative is one of the "big science" ideas championed by departing NCI Director Andrew von Eschenbach. Under von Eschenbach's tenure, NCI funding from the federal government had doubled until 2003, but it has remained flat since.

Faculty at the event pressed Niederhuber about what NCI is doing to preserve funding for younger researchers. Niederhuber said the 27 institutions and centers of the National Institutes of Health, of which NCI is one, are working together, so many grants for cancer work could actually come from other institutions.

One area of note, he said, is that NCI has increased the funding amount for grants to first-time investigators.

Niederhuber also said he is paying particular attention to researchers competing to renew an NCI grant for the first time. "The first competing renewal of a grant is a make-or-break point to getting tenure," he said. "I'm trying to highlight and identify those individuals so we don't lose talented people at this point."

For fuller text visit web.mit.edu/newsoffice/2006/nci.html

NOKIA

Continued from Page 1

because of Nokia's leadership in the mobile communications market — we also have confidence that our joint research will likely be deployed throughout the world, ultimately having a positive impact on the daily lives of hundreds of millions of people."

Located five minutes from CSAIL's headquarters, the Nokia Research Center Cambridge will have approximately 20 researchers from MIT and 20 researchers from Nokia. Joint projects will be managed under the direction of a joint steering committee, and James Hicks from the Nokia Research Center has been named director of the Nokia Research Center Cambridge. Arvind, the Johnson Professor of Computer Science and Engineering at MIT, will be the program manager for MIT/CSAIL.

For more information on the Nokia Research Center, visit http://research.nokia.com/

Mini MIT satellites rocketing to space station

A Russian rocket launched Monday, April 24, is carrying the first of three small, spherical satellites developed at MIT to the International Space Station — a major step toward building space-based robotic telescopes and other systems.

The MIT SPHERES project — the acronym stands for Synchronized Position Hold Engage Re-orient Experimental Satellites — involves satellites about the size of volleyballs that are designed to float weightless in space while maintaining a precise position. A gang of such instruments, floating free in space, could serve as parts of a massive telescope looking for planets near other stars.

Launched from the Baikonur facility in Kazakhstan, the rocket with the satellites is expected to dock with the station today, April 26.

The first critical test of the SPHERE is set for Thursday, May 18 — inside the space station. Two additional SPHERES are scheduled to reach the space station, carried up by a U.S. space shuttle, before the end of the year.

"We're doing this because these missions have a lot of new, untried technology," said David W. Miller, an associate professor in MIT's Department of Aeronautics and Astronautics. "Testing inside the space station will allow us to mature these technologies in a less risky microgravity environment," meaning inside the warm, air-filled station, rather than outside in the hazardous conditions of space.

Eventually, such autonomous space vehicles will fly on their own — in formation in orbit — and maintain their positions via radio links, interacting almost constantly to stay where they belong in relation to each other. Like a huge multiple-mirror telescope, each element will be "tweaked" frequently to keep the overall instrument "in tune."

The SPHERES were originally prototyped by undergraduate students at MIT. Subsequently, the flight SPHERES were built by MIT graduate students and Payload Systems Inc. of Cambridge, Mass., but launch was delayed for years by loss of the shuttle Columbia, and by a very crowded launch schedule. In the meantime, all the original students on the project have graduated, all but one have left MIT, and the technology has been steadily refined.

Two astronauts — one from NASA, the other from the European Space Agency — have already been trained to run the first experiments with SPHERES adrift inside the space station. According to Miller, an ultrasound system — rather than a radio-based system — was also installed inside the space station, so the SPHERES floating untethered have something to tell them where they are as they're being tested in micro-gravity. The goal is to have them hover in space, not drifting "off station" by more than 1 centimeter.

FILE PHOTO / **COURTESY NASA**

MIT's SPHERES mini satellites rocketed into space on Monday, April 24, en route to the International Space Station. The SPHERES team tested the satellites in 2004 aboard a NASA plane used to simulate weightlessness. From left are team members Stephanie Chen, Steve Sell and Edmund Kong. At right is Gary Blackwood of NASA.

"Our first test session, with astronauts getting it out to fly, will be May 18. That will be a check-up for the SPHERE," Miller said. Then "there will be some single-sphere maneuvers, such as rudimentary docking, inside the space station," where it should perform "with the same kind of resolution that the space radio system will have."

Earlier flight tests, involving some of the MIT students who helped develop the experimental SPHERES, were conducted aboard the "vomit comet," a KC-135 tanker plane that NASA uses to give astronauts their first experience with weightlessness. Now only one of the original students works at MIT: Alvar Saenz-Otero, a post-doctoral associate in aeronautics and astronautics, is managing the project.

Graduate students currently working on the project are Simon Nolet, Mark Hilstad, Swati Mohan, Nick Hoff and Georges Aoude. Miller and Professor Jonathan How are the participating faculty.

Scientists envision using SPHERES' mechanical offspring as talented robots that can come together to work on construction projects, repair damage, refuel other satellites or work as parts of other systems — including telescopes of unprecedented size.

These first SPHERES serve as prototypes for bigger instrument packages that will be spread out in space to work together.

Miller, who is also director of MIT's Space Systems Laboratory, said the two other identical test SPHERES will be carried up to the space station on Saturday, July 1, the other on Thursday, Dec. 14, if shuttle launches occur as planned. One goal is to refine and test the technology for use with the bigger, more complex spheres yet to come.

Before the SPHERES finally got off the ground this week, the project encountered several delays. "They were ready to go in 2003," Miller said, but then the Space Shuttle Columbia disintegrated in the blazing heat of re-entry, killing the astronauts on board and setting the U.S. space program back by years.

Of course, there's no guarantee that all of the SPHERES will get aloft now, Miller said. There is huge demand for cargo space, especially aboard the shuttles, but launch delays because of technical problems, or simply the weather, are common.

This work is funded by DARPA, with additional support from NASA's Goddard Space Flight Center, NASA's Ames Research Center and NASA's Jet Propulsion Laboratory.

MacArthur grant of $1.2M to enhance global security

The John D. and Catherine T. MacArthur Foundation recently announced that MIT will receive a $1.2 million grant to help reduce the dangers posed by nuclear and biological weapons and materials.

The award is one of 12 grants, totaling nearly $5.3 million, made by the foundation to strengthen independent scientific and technical advice on security policy and to engage decision-makers with timely policy research.

MIT's grant will support its Science, Technology and Global Security Working Group. Grant funds will be used to nurture midcareer and aspiring science and security experts, to conduct technical studies on a range of security issues, including risk reduction in South Asia, and for efforts to ensure that technical analysis is relayed to policymakers in a timely fashion.

The MIT group is one of the largest groups of university scientists dedicated to independent technical analysis on science and security-related matters, including technical analysis of ballistic missile systems and global satellite monitoring and surveillance.

New tools enable large-scale studies of gene function

A molecular library created by a research team led by scientists at the Broad Institute of MIT and Harvard promises to accelerate scientists' understanding of the genetics behind cancer and many biological processes.

In the March 24 issue of Cell, the team, working through The RNAi Consortium (TRC), announced the construction and worldwide availability of a library of molecular reagents that silence most human and mouse genes. The library consists of small RNA molecules, known as RNA-interference (RNAi) inhibitors, that can switch off genes individually. That capability will allow scientists to dissect the genetic underpinnings of normal biology and disease.

TRC is a unique collaboration among academic research institutions and leading life science companies. Its mission is to build comprehensive RNAi libraries and make them available to scientists worldwide. In the coming year, TRC aims to expand the RNAi library to achieve near-complete coverage of the mouse and human genomes. (The library described in Cell is large but not comprehensive.)

"Switching off a single gene through RNAi reveals how that gene functions in a particular biological process. When RNAi's potential is applied to thousands of genes — as it has been in fruit flies and nematodes — it can provide a more complete picture of that process," said David Root, director of the RNAi platform at the Broad Institute and director of TRC.

"Thanks to this unique public-private effort, we now have new tools to enable the entire research community to realize the potential of RNAi in the two most important species in biomedicine," said Root, a senior author of the Cell paper.

RNAi gives scientists the ability to turn off an individual gene. Each of the small RNA molecules is tailored to match a fragment of a gene's unique DNA, to which it binds, rendering the gene inactive.

The parallel analysis of thousands of genes using RNAi allows researchers to more readily pinpoint the genes that control a biological process. TRC researchers developed techniques and quality-control measures that make it possible to perform such large-scale analysis.

"The RNAi library developed by the RNAi Consortium is a rich resource for biological discovery," said Nir Hacohen, assistant professor at Massachusetts General Hospital and Harvard Medical School, associate member of the Broad Institute and a senior author.

"Ongoing studies in my own laboratory to understand how the immune system senses pathogens and appropriately targets its response will be accelerated using these tools," Hacohen said.

To evaluate the RNAi library's performance, the scientists sampled a subset that targets approximately 1,000 human genes. They systematically inactivated these genes in a human cancer cell line to identify the genes that regulate cell division during malignancy. Automated cellular imaging was used to efficiently identify dividing cells in thousands of samples. This approach uncovered more than 100 previously unknown growth regulators, in addition to several known players, confirming the library's sensitivity as a vehicle for gene discovery.

"This critical new tool illustrates the requirement for academic and industry partnerships to drive scientific innovation," said Eric Lander, director of the Broad Institute, a member of the Whitehead Institute for Biomedical Research, an MIT professor of biology, and a senior author on the Cell paper. "The importance of putting these reagents in the public domain will be demonstrated by the many important biomedical discoveries that will stem from them."

Other authors on the paper include David Sabatini, MIT assistant professor of biology, member of the Whitehead and an associate member of the Broad Institute; Bill Hahn, assistant professor at Dana-Farber Cancer Institute and Harvard Medical School, and associate member of the Broad; Sheila Stewart of Washington University, formerly of Whitehead; and Brent Stockwell of Columbia University, also formerly of Whitehead.

Earth Day spreads to week of events

Sasha Brown
News Office

The concerts, dancing, food and more that will mark MIT's annual Earth Day celebration on Thursday, April 27, in the Stata Center are just the tip of the iceberg this year.

This entire week has been rife with Earth Day activities.

"Earth Day 2006 — and the compelling lectures and activities leading up to it — will be a terrific showcase of the diverse environmental activities in the MIT community," said Steven Lanou, deputy director of sustainability initiatives in the MIT Environmental Programs Office.

MIT typically holds its Earth Day celebration on a day near the worldwide Earth Day, but when students will be on campus. "This year April 22 fell on a Saturday — not a day when there's much traffic on campus," said Amanda Graham, education program manager in the Laboratory for Energy and the Environment.

But events began on April 21, when the Students for Global Sustainability and the Technology and Policy Student Society sponsored a "zero waste party" in the Stata Center. The party was designated "bring your own cup," as disposables were not available. Attendees were treated to food from organic and local sources.

On April 25, Lanou led his second annual walking tour of MIT's green campus initiatives, including the solar power system, the Stata Center bioswale (a landscaped area designed to remove pollution from runoff), the cogeneration plant and the algae bioreactor. The same day, Caroly Shumway, the senior scientist for aquatic biodiversity at the New England Aquarium, gave a talk titled "Links Between Land, Freshwater, the Sea and You."

The water theme continues today with a noon talk in Wong Auditorium titled "The Charles River: Cambridge's Front Yard: The Transformation From Industrial Mudflats to Recreational Parklands" with Renata von Tscharner, president of the Charles River Conservancy.

The talk will be followed this evening by "Sea Change: Reversing the Tide," a play in Room 66-110 that was written by award-winning actress Lisa Harrow and her husband, Roger Payne, the founder and president of the Ocean Alliance, which is dedicated to the conservation of whales and the ocean environment.

PHOTO / **DONNA COVENEY**

Trees bloom around campus as MIT gears up to celebrate Earth Day on Thursday, April 27.

Thursday, April 27 is officially MIT's Earth Day. The celebration runs from 10 a.m. to 4 p.m. in the Stata Center and will include free bike repairs, food, a calligraphy workshop and more.

Sponsors for this year's event include the Recycling Committee of the Working Group on Support Staff Issues, Share a Vital Earth, Students for Global Sustainability, MIT Environmental Programs Office and the MIT Laboratory for Energy and the Environment.

"This year is special because we have the highest number of exhibits and displays yet — more than 30, including student groups, MIT departments and centers, and external groups — and because we have the strongest collaboration among students and staff in recent memory," said Graham.

NEWS YOU CAN USE

Tech Talk awards issue

Tech Talk is gearing up for its annual awards issue, which will be published June 7 to be available at Commencement.

Please submit information on your department's annual award winners by Wednesday, May 17, at 8 p.m. (Do not submit Infinite Mile Awards or awards from outside organizations.)

All submissions should be made online at web.mit.edu/newsoffice/awards.html. For more information, contact Kathryn O'Neill at kathryno@mit.edu or x8-5401.

Sigma Xi lecture

Professor Yoel Fink of the Department of Materials Science and Engineering and the Research Laboratory for Electronics will deliver the annual Sigma Xi Lecture on Tuesday, May 2, at the MIT Faculty Club.

The annual Sigma Xi dinner will be held at 6:30 p.m., followed by the lecture at 8:30 p.m. The Faculty Club is located on the sixth floor of Building E52. Those interested in attending the dinner should contact Professor Linn Hobbs, MIT Sigma Xi chapter president, at x3-6970 or hobbs@mit.edu.

FACULTY

Continued from Page 2

granted an additional year's extension for any additional child or children.

Under the new policy, adoptive parents and men, under some circumstances, can also request extensions of the tenure clock when children enter the family. As before, tenured faculty who need time for family care may apply for reduced-time, reduced-pay appointments, and parents who spend significant time on child care (now defined as 50 percent or more of the time they usually spend on academic work) will be granted release, with full pay, for one semester from teaching and administrative responsibilities to focus on their infants and on their graduate students.

Discipline report

Margery Resnick, associate professor of foreign languages and literature, gave a report from the Committee on Discipline, which hears cases of student infractions of Institute rules and policies, such as academic misconduct, hosting unregistered events, computer piracy, underage possession and consumption of alcohol and other transgressions. The committee only hears cases that are not handled by the Office of the Dean for Student Affairs, which deals with cases in which a student admits his or her guilt and, with the dean or a member of the dean's staff, comes up with an appropriate sanction.

Both the committee and the deans hear discipline cases. In the 2004-2005 academic year, sanctions included letters placed in students' files, probation, reimbursement for damaged property, and a single expulsion.

Resnick noted that women are catching up to men in the number of cases seen by the committee. Among the cases seen by the dean of students, very few involved freshmen, while most occurred among juniors.

The faculty approved restructuring of the Committee on Graduate School Policy as described at the March faculty meeting. Renamed the Committee on Graduate Programs, the committee, which handles tasks including recommending the adoption of new graduate degree programs and issuing formal complaints to underperforming graduate students, will shrink from 40 to six elected faculty members plus the associate chair of the faculty and two graduate student members, among other changes.

DIGITALK: WHERE IT'S AT

New IM service

IS&T is piloting Jabber as an instant messaging (IM) service for MIT, and the community is invited to participate. Jabber lets MIT users communicate with one another and with Jabber users elsewhere on the Internet. It also supports chat rooms for group communication.

Jabber uses open-source, XML-based protocols to create standard IM functionality: one-to-one chat, multi-user chat, and the ability to subscribe to someone else's presence (see www.jabber.org for details). MIT's Jabber service uses the MIT namespace (username@mit.edu) for easier identification of screen names.

Jabber is not a multi-protocol IM client, but IM clients that support Jabber let you chat with users on AIM, ICQ, MSN, Yahoo and other commercial services. IS&T recommends Gaim as a client for Windows, Linux and Athena, and Adium X as the client for the Macintosh. For more information, visit IS&T's Jabber page at web.mit.edu/ist/services/messaging/jabber.html. Pilot participants can submit comments and questions to wocky@mit.edu.

Interlibrary borrowing made easy

MIT Libraries' users can now request books, articles and other materials from academic libraries worldwide through a new web-based system. ILLiad lets MIT users access materials from libraries outside of MIT in support of MIT-related work and research. Locally this includes access to the 18 other member libraries of the Boston Library Consortium, as well as to Harvard Libraries.

New users can register at libraries.mit.edu/illiad.

Training for HR-Payroll

The HR-Payroll Project is heading into the home stretch, with implementation of the new SAP Payroll system set for July 1. Several new electronic tools for faculty, DLC administrators and employees (including students paid hourly) will be available for payroll functions that today are done on paper.

To ease the transition to the new system, an extensive curriculum of classes will begin on May 30 and run through the summer, with refresher classes in the fall. Class descriptions and details about schedule, location, seating availability and registration requirements can be accessed via the Employee Self Service (ESS) web site at web.mit.edu/sapwebss/.

If you have questions about which classes to attend, check with your local human resources or payroll administrators. The training registrar at payroll-registrar@mit.edu can field questions about the schedule. For help using ESS, contact the computing help desk at computing-help@mit.edu or x3-1101.

To learn more about the new payroll system and tools, visit the HR-Payroll Project web site at web.mit.edu/ist/delivery/hrpayroll/.

Windows OS agreement extended

IS&T has extended its Microsoft Campus Agreement for Windows operating systems and Client Access Licenses (CALs) to all MIT students, including graduate students not previously covered by their departments. This agreement already granted MIT faculty, staff, undergraduates and graduate students in participating departments the right to use Windows XP Professional and subsequent OS releases from Microsoft.

Windows XP Professional upgrades are available via an ISO image or zip file from msca.mit.edu/. A personal certificate is required. IS&T encourages all members of the MIT community using Windows 2000 to upgrade, except those using workstations targeted for replacement during the academic and/or fiscal year.

For more information on the Microsoft Campus Agreement, visit web.mit.edu/ist/services/software/msca.html.

Digitalk is compiled by Information Services and Technology.

CLASSIFIED ADS

Beginning this week, Tech Talk will run classified ads in every other issue.
Members of the MIT community may submit one classified ad per issue. Ads can be resubmitted, but not two issues in a row. Ads should be 30 words maximum; they will be edited. Submit by e-mail to ttads@mit.edu or mail to Classifieds, Rm 11-400. Deadline is noon Wednesday the week before publication.

FOR SALE

Road bicycle, 18 speed, 4 years old, 55 cm Jamis Eclipse. Excellent shape, $400. Call 253-1723 or e-mail wheaton@mit.edu.

White Maytag heavy duty washing machine - 2 speed, super capacity - 9 cycles - excellent condition. Washer is located in North Reading, Mass. $150. Call Cheryl at 258-5673.

HOUSING

Visiting professor with baby coming from Europe seeks 1BR/ large studio to sublet for the fall term. Out of town OK, economical rent not luxury. E-mail sharon@kinsellaresearch.com.

Home for sale, mid-century modern, Lincoln, MA, 13 miles from Cambridge. 2 acres, pond, great schools, 3,000 sq. ft. Get away from it all without being away from it all! $990K. Call 231-946-6804.

House for sale. 2BR, 1.5BA, 1,296 sq.ft., driveway, fenced yard, deck, attic, crawl space, 6 blks to MIT, Kendall, Galleria. New energy-efficient windows, vinyl siding, Leaf-Guard gutters. $475K. Call 617-547-0407.

Townhouse for sale - $499K. Near west campus. Recently renovated. 2BR, 1.5BA, indoor garage, woodstove, private patio, deck. High ceilings, great windows/light. New roof, siding, lighting, cabinetry. Call Kendall Luce at 617-864-8566.

VACATION

2BR, 2BA Victorian, Orleans, MA. 1.5 miles to Nauset Beach, walk to town. Available weekly. June 3-July 1, $800/wk, Aug. 5-19, $1,200/wk. Call Polly 253-9456 or 617-840-5599.

Traditional large Cape in Hamlet of Hyannisport. 6 BR/3.5 BA. Private yard, deck & wooded area. Blocks to beaches, mile to Hyannis center. A lovely home available for $ 3,000/wk. Please contact Janni at janiscka@mit.edu.

Brewster, Cape Cod. Private sandy beach on freshwater pond. 1BR house sleeps up to 5. Separate studio sleeps 2. Deck and screened porch overlooking pond. Near conservation area & bike trails. $1,200/week. Call Andy at 617-876-6257.

Ocean front summer cabin, Mount Desert Island, ME. 2 BR/1 bath, w/living/kitchen area; picture windows, deck overlooking water; stairway to beach. Mins from Acadia National Park, Bar Harbor. $1,000/week June-Sept. Contact Steve at 253-5757 or chorover@mit.edu.

3BR cottage on Wadleigh Pond, Lyman, Maine. Golf, historic Portland & Kennebunkport nearby. Fully equipped. Quiet area, beautiful sunsets. Ideal spot for relaxation. $900/wk. Contact maturner@mit.edu. Pictures avail.

STUDENT EMPLOYMENT

Positions for students with work-study eligibility

MIT Public Service Center seeks student w/ energy, vision, organization & communication skills to lead the MIT Used Computer Factory (UCF), part of CommuniTech, a student-led program working to put discarded computers into the hands of low-income families in the greater Boston area. Coordinator will work closely w/ Volunteer & Outreach Coordinator of PSC and the Families Accessing Computer Technology Coordinator. 6 weeks training period. Excellent interpersonal skills & knowledge in computer refurbishing essential. Please submit cover letter, resume & short writing sample. Contact Sally Susnowitz in the PSC, susnowitz@mit.edu, 617-258-7344. $10/hr.

Public Service Center seeks volunteer placement coordinator. Use & develop leadership skills to improve volunteer placement & expand community service for MIT students. Design & run events, write & compile weekly volunteer e-mail bulletin, improve volunteer resources at PSC on web site & office. Publicize volunteer opportunities & resources, oversee & participate in volunteer placement system. Coordinator will work w/ team of students & staff to carry out PSC mission. Need energy, vision, organization, strong written & oral skills, be able to take the lead, initiative, flexibility & sense of humor. Submit cover letter, resume & short writing sample. Contact Sally Susnowitz in the PSC, susnowitz@mit.edu, 617-258-7344. $10/hr.

MISCELLANEOUS

Wanted: Danish Modern, Scandinavian, & Eames style Teak or Rosewood furniture from 1950s-1980s. Will give your furniture a good home. Contact Aaron at 617-547-4459 or adschwartz@alum.mit.edu.

PHOTO / **THOMAS MAXISCH**

The University Choir of Lausanne, shown here performing at a concert in 2005 at the Lausanne Cathedral, will sing with the MIT Concert Choir on Friday, April 28, at Kresge Auditorium.

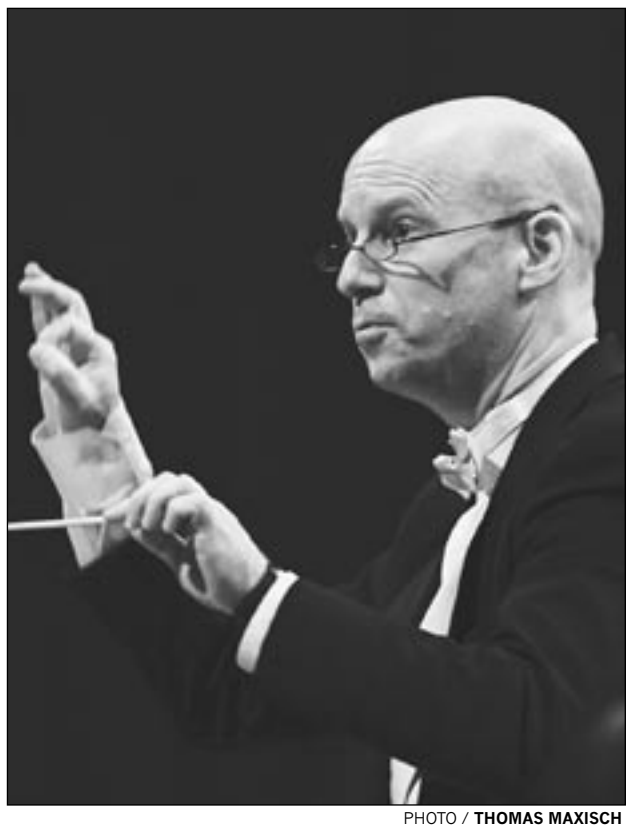

PHOTO / **THOMAS MAXISCH**

William Cutter, director of the MIT Concert Choir, will conduct his choir and the University Choir of Lausanne Friday.

Swiss, MIT choirs plan academic, harmonic convergence

Paul Crocetti
Office of the Arts

This week, nearly 150 singers will take the stage at Kresge Auditorium as part of the International Choir Exchange between the MIT Concert Choir and the University Choir of Lausanne, Switzerland.

The exchange is not just musical. Today, the choirs will present an "international symposium" in Room 26-100, featuring student presentations on research subjects ranging from the life sciences to materials science to architecture. The 9:30 a.m. event is open to the community.

The two schools' choirs, accompanied by a professional symphony orchestra, will then perform "The German Requiem" by Johannes Brahms together on Friday, April 28, at 8 p.m.

"It's considered one of the most important choral and orchestral pieces in the repertoire," said William Cutter, the conductor of the MIT Concert Choir. "It's a great piece for the chorus because they get to sing all of it. The chorus is the star of the show."

The University Choir of Lausanne, which is affiliated with both the Swiss Federal Institute of Technology and the University of Lausanne, will be here for 10 days. Next month, the choir members from MIT will travel to Switzerland, where they will stay for 10 days and perform the "Requiem" two more times, in the Lausanne Cathedral on May 31 and June 1.

Having taken part in an exchange like this before, Cutter said there are great benefits for both groups.

"You get to know the people very well," he said. "You make a connection with them as musical friends and as friends."

Thomas Maxisch has been working on organizing the scientific portion of the exchange since 2004. "It's a very nice program, with the purpose that the MIT community will have an impression of what's going on at the other school, in terms of research," he said. Maxisch, an MIT postdoctoral associate in materials science and engineering, received his Ph.D. from Lausanne.

The schools will join for a similar symposium in Switzerland on Monday, May 29.

"That's been the idea all along," said Cutter. "It's pretty unique."

MIT President Susan Hockfield and Patrick Aebischer, the president of the Swiss Federal Institute of Technology in Lausanne, will both speak before the concert, which Cutter described as one of the biggest performances ever to hit Kresge.

"It's going to be a very exciting event," he said. "It's a beautiful piece. Most people that know choral music know this piece."

AWARDS & HONORS

House & Garden magazine recognized **MIT** in its April award section called "The Innovators: A Salute to 25 Torchbearers Lighting the Way to New and Better Design." MIT is No. 14 on the list, and the citation says, "With new buildings by Charles Correa, Frank Gehry and Steven Holl, its restoration of older buildings by Eero Saarinen and Alvar Aalto, and its original neoclassical structures, MIT now arguably has the most architecturally diverse campus in the nation."

Drazen Prelec, professor in the MIT Sloan School of Management, has been named Leon Levy Member of the Institute for Advanced Study at Princeton; he gave the first public Leon Levy Lecture on March 29.

Xavier Gabaix, associate professor of economics, is the 2006 recipient of the Young Scientist Award for Socio- and Econophysics. Gabaix was honored for his work using statistical physics to better understand financial markets. The prize was awarded March 28 at the spring meeting of the German Physical Society by the society's Section for Physics of Socio-Economic Systems.

MIT President Emeritus **Charles Vest** will receive an honorary doctorate in law from Cambridge University at a ceremony in June. As president, Vest helped set up the Cambridge-MIT Institute, an alliance between the two institutions designed to create research projects, educational programs and student exchange programs.

Krzysztof Wodiczko, professor of architecture, was recently named the 21st Robert Lepper Distinguished Lecturer in Creative Inquiry. Wodiczko delivered the lecture on April 18 at Carnegie Mellon University in Pittsburgh.

Architect to design concert hall

Robin H. Ray
News Office Correspondent

Architect Alan Joslin, an MIT graduate and visiting faculty member, has been selected to design a new concert hall for the Rockport (Mass.) Chamber Music Festival.

Joslin (M.Arch. 1981) has designed performance spaces for music and dance at Tanglewood and Williams College, among other sites. His schematic drawing of Rockport's new concert hall was selected out of a field of 27 competitors.

In Joslin's design, the music festival's new concert space will utilize and also break through the façade of the 19th-century Haskins Building in the heart of the historic seaport, opening up the area to both the waterfront in front and Rockport's commercial sector to the rear. Deborah Epstein (M.Arch. 1983), Joslin's partner in the firm of Epstein Joslin Architects, will design the interior, along with renowned acoustician Larry Kierkegaard.

The chamber music festival has been squeezed for space at its current location, the Rockport Art Association on Main Street, as its concerts have attracted larger audiences. When Joslin's renovations are finished in 2008, Rockport will have one of the finest chamber music performance facilities in the country, as well as space for civic and school productions.

"With the renovated Haskins Building we will have the opportunity to provide our performers the performance facility they fully deserve," said David Deveau, the artistic director of the festival and a senior lecturer in music at MIT.

Joslin has designed more than a dozen innovative and acoustically inspiring music venues. He was project manager in the firm of William Rawn Associates for the design and construction of Seiji Ozawa Hall at the Tanglewood Festival in Lenox, Mass. That building received numerous awards, including the 2000 Honor Award in Interior Architecture from the American Institute of Architects, and it is widely regarded for its outstanding acoustics. Other projects for which Joslin acted as design principal are the new Williams College Theater and Dance Center, the Strathmore Music Center in Bethesda, Md., and the Lake Mataoka Amphitheater at William and Mary College in Virginia.

PHOTO COURTESY/ **EPSTEIN JOSLIN ARCHITECTS**

MIT alumna Deborah Epstein and Alan Joslin, an MIT graduate and visiting faculty member, have been selected to design a new concert hall in Rockport, Mass.

Joslin and Epstein share ties to MIT; they are husband and wife as well as partners, and Joslin continues to maintain close ties with the institution through collaborations and teaching.

"I love MIT because of the talent of the people I find there and with whom I can collaborate," he wrote in an e-mail. "All self-motivated, intelligent, modest, enthusiastic, diligent and just good-natured and spirited folk."

In the fall of 2005, he taught an architectural design course called "Roots and Wings" at the Institute. Its focus, like that of the Rockport project, was on architecture that responds to the essential elements of earth, water and sky, taking careful consideration of the natural and social reality of the setting. "The 'kids' inspire me," he wrote. "They ask tough questions, they make bold propositions, they surprise me with solutions that are not intuitively obvious precisely because they are not weighed down with experiences that tell them otherwise."

MIT EVENT HIGHLIGHTS APRIL 26-30

Science/ Technology · Performance · Architecture/ Planning · Humanities

Music · Exhibit · Reading · Special Interest

Business/ Money · Film · Sports · Featured Event

PHOTO / **HARRELL FLETCHER**

War on view

This photo is part of 'The American War,' an exhibition by Harrell Fletcher on view at the Center for Advanced Visual Studies from April 27 to June 30. In Vietnam for an artists' retreat during summer 2005, Fletcher re-photographed each image and text description on view at Ho Chi Minh City's The War Remnants Museum.

WEDNESDAY April 26

Soap Box: Debating Cutting Edge Issues with World-Class Scientists and Engineers
Talk by Nancy Kanwisher, the Ellen Swallow Richards Professor of Cognitive Neuroscience. 6-8 p.m. MIT Museum. 253-4444.

Advanced Music Performance Concert
Serenus Hua, class of 2007, on the violin. 5 p.m. Killian Hall. 253-2826.

"Objects and Systems"
Talk by Assistant Professor Hadas Steiner of SUNY-Buffalo. 6:30 p.m. Room 3-133. 258-8438.

"Sea Change: Reversing the Tide"
Talk by Ocean Alliance founder Roger Payne and author and actress Lisa Harrow. 7:30-8:30 p.m. Room 66-110. 324-6034.

THURSDAY April 27

CAVS Artist's Presentation: John Malpede
"RFK in EKY," a full-scale two-day re-enactment of Robert F. Kennedy's 1968 tour through eight impoverished towns in southeastern Kentucky. 6:30 p.m. Room N52-390. 452-2484.

Poetry@MIT: Henri Cole
Talk by Henri Cole, author of four books of poetry. 7 p.m. Room 32-141. 253-7894.

Student Jazz Combo Concert
Keala Kaumeheiwa, coach. 7:30 p.m. Killian Hall. 253-2826.

"Felutopia"
Student Workshop production presented by The Coalition Against Racist Propaganda and Other Crimes Perpetrated by the White Man. April 27-29. 8 p.m. Kresge Rehearsal Room A. 253-4720.

FRIDAY April 28

"Composing a Life"
Annual exhibition of student art projects. April 27-May 17. Open 24 hours. Wiesner Student Art Gallery. 253-7019.

"Are We Too Dependent on Middle Eastern Oil?"
Talk by Ernest J. Moniz and Barry R. Posen. Noon. Room E51-335.

Advanced Music Performance Concert
Senior Matthew Roitstein plays the flute. 5 p.m. Killian Hall. 253-2826.

Air Force Fly-By for ROTC Parade
Four A-10 Thunderbolt II's will honor ROTC's annual Tri-Service Pass-In-Review with loud, low jet flight over Barry Astroturf Field. 10-10:05 a.m.

Vietman War Film Series
Screening of "Good Morning, Vietnam!" Simmons Hall MPR. 6 p.m.

SATURDAY April 29

"Nilin and Nilina: Past Through Different Lenses"
Photos by architecture graduate student Nadya Nilina and her brother Nilin, a professional photographer/filmmaker in Moscow. Through April 30. Room 7-238.

"The American War"
Exhibition by photographer Harrell Fletcher. April 27-June 9. Room N52-390. 452-2484.

"Satire & Salutations"
Performance by Mark Harvey and the Aardvark Jazz Orchestra. 8 p.m. Kresge Auditorium. 253-2906.

SUNDAY April 30

"COLLISION-box #2: Cars and Stars"
Andy Zimmermann's multimedia installation projects digital animation and video onto a three-dimensional sculpture with accompanying digital sound composition. $5 adults; $2 students; free with MIT ID. Noon-5 p.m. MIT Museum. 253-4444.

"The President's Own"
Performance by the U.S. Marine Band Saxophone Quartet. 2 p.m. Killian Hall. 253-2906.

MITHAS Concert
Ranjani and Gayathri, Carnatic vocal duet, with H.N. Bhaskar on the violin and K. Arun Prakash on the mridangam. $18; $14 MITHAS members; $10 students; MIT students free. 4 p.m. Wong Auditorium. 258-7971.

Go Online! For complete events listings, see the MIT Events Calendar at: http://events.mit.edu.
Go Online! Office of the Arts website at: http://web.mit.edu/arts/office.

EDITOR'S CHOICE

JEWISH HUMOR SERIES — *Apr. 26*

First Year Students at Hillel presents the Jewish Cartoon and Sitcom series.

East Campus
7-8 p.m.

MIT EARTH DAY — *Apr. 27*

All-day fair with music and dance performances, raffles, interactive exhibits, giveaways, bike repair and cell phone recycling.

Stata Center
10 a.m. - 4 p.m.

MUSICAL THEATRE GUILD'S "CHICAGO" — *Apr. 28*

April 28-30 and May 4-6. 8 p.m. except 2 p.m. April 30. $12, $9 MIT faculty/staff, senior citizens, students; $6 MIT/Wellesley students.

Kresge Little Theater
8 p.m.