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TechTalk

SERVING THE MIT COMMUNITY

PHOTO / **DONNA COVENEY**

Dressed for the holidays

The entrance at 77 Mass. Ave. is full of holiday cheer, but there are bound to be a lot fewer people going through the doors next week as many leave campus for break.

He's hired! Alumnus named 'Apprentice'

Trump calls Randal Pinkett a 'star'

Amy Marcott
MIT Alumni Association

It's official: A star is hired. Randal Pinkett (S.M., M.B.A. '98, Ph.D. '02) triumphed over 17 other competitors on The Apprentice 4 finale Dec. 15 to earn a job with Donald Trump.

"Randal's been a star. He's got a star education. He's MIT. He's a Rhodes Scholar," Trump said. "Do you know what that means? That's serious, serious education." Some 800 students and alumni gathered in Kresge Auditorium to watch the show on live television.

Indeed, Pinkett seemed the clear favorite throughout the 13-week job interview, winning all three tasks he project-managed, earning the respect of fellow cast members, and being quickly snatched up by other competitors when opportunities arose to even the teams.

The win nets Pinkett a six-figure job with "The Donald" overseeing the renovation and expansion of Trump's three hotels in Atlantic City, N.J. "I see it really as what it's intended to be, an apprenticeship," Pinkett said in an interview before the last show aired. "I don't envision that I will begin a lifelong career at the Trump organization, but I certainly will work hard and seek to learn, and be a sponge. … I believe I have a lot to bring to the Trump organization through my experience as an entrepreneur."

Typical of reality TV drama, Pinkett's fate was left in question during the penultimate episode, in which he and challenger Rebecca, a 23-year-old financial journalist, organized large benefits. Pinkett did make some questionable

PHOTO / **ALICIA HANSEN**

Randal Pinkett, a Sloan alumnus, led his team to three victories during the 13-week 'Apprentice' competition.

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IAP offers something for all tastes

Sasha Brown
News Office

The 2006 Independent Activities Period (IAP), which will run from Jan. 9 through Feb. 3, offers everyone at MIT — students, faculty, staff, even alumni — a chance to break away from the routine and try something new. Courses range from Hebrew to knitting and from running to philosophy, so there is something for almost everyone. Many of the classes are for beginners, making this the perfect time to learn a new skill or hone an old one. For a full listing, go to web.mit.edu/iap/. Here are just some of the highlights:

Food and cooking

Old Food: Ancient and Medieval Cooking
Anne McCants, Howard Eissenstat, Margo Collett

Wednesday, Jan. 11, from noon to 5 p.m. Next House. Sign up by Jan. 5. Limit: 25 participants.

Afternoon of good old- (really old) fashioned ancient and medieval cookery. Class will prepare, cook and eat medieval foods from both sides of the Mediterranean Sea. Preparations will involve the use of authentic period recipe books. Contact: x8-6669.

Athletics and exercise

Middle Eastern Dance
Loni Butera

Mondays and Wednesdays through January, from 1 to 3 p.m. T-Club Lounge.

Classes consist of warm-ups, exercises focusing on isolation and coordination, plus dance combinations/choreography. Wear a leotard and tights or loose-fitting clothes to class.

Boston and Cambridge

Chocolate Tour of Boston
Rachel Chaney, Chaitra Manjunatha

Saturday, Jan. 21, from 11 a.m. to 3 p.m. Meet in Lobby 7.

Want to know where to get good

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MIT hosts middle-school students for a discussion of stem cell research, technology and ethics.

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President backs Community Giving campaign

To members of the faculty and staff:

As you walk through campus or the hallways of Lincoln Lab, on most days you probably notice fund-raising efforts on behalf of community service organizations. I certainly do. Immediately following the devastating hurricanes this fall, MIT faculty and students responded with a remarkable outpouring of fund-raising activities, food and clothing drives, educational activities, and emergency and long-term volunteer efforts. Earlier this month, different groups on campus sponsored activities to raise awareness and money for AIDS research and assistance. These are just two examples of the many ways in which the MIT community demonstrates its great generosity and compassion.

The Community Giving at MIT Campaign offers an important opportunity for all of us to help our local community service agencies address poverty, illness, homelessness and other critical issues. I am writing to ask you to consider supporting this Institute-wide fund-raising effort. Our goal this year is to raise $400,000 through broad faculty and staff participation. MIT's charitable giving campaign is unusually comprehensive, offering the options of giving to the United Way of Massachusetts Bay, the MIT Community Service Fund or any local health or human services agency.

Dean Robert Redwine, who chairs the campaign steering committee, tells me that colleagues often ask committee members and department representatives to explain the benefits of taking part in this campaign. First, the practical: Donors may choose to donate through payroll deductions, a one-step process that makes it possible to spread out contributions over a longer period of time. Second, since most people have a personal association with or feel very connected to a particular cause, the campaign allows contributors to select from countless organizations. Donors may give to any local health or human services 501(c)(3) agency, including MIT organizations such as the Public Service Center. Contributors also may choose the MIT Community Service Fund, which supports Cambridge community service organizations in which MIT students, faculty and staff are involved as volunteers.

As an institution, MIT seeks to make a difference in the world. Participation in the Community Giving at MIT Campaign is one way we can fulfill that mission — by reaching out to individuals and families in our communities. I hope you will join me in supporting this year's campaign. You may donate online at web.mit.edu/community-giving/ or request a pledge packet by e-mailing community-giving@mit.edu or calling x3-7914.

Sincerely,
Susan Hockfield

NEWS YOU CAN USE

Gifts from vendors banned

Diane Shea, director of procurement, has issued the following reminder to department heads, lab directors/account supervisors, administrative officers, requisitioners, procurement personnel and others who are involved in the acquisition process.

Institute and federal policies prohibit the acceptance of gifts from vendors, subcontractors and contractors (suppliers). The Institute policy is found in Policies and Procedures, section 7.9 (web.mit.edu/policies/). The text follows:

"It is the Institute's objective to award business to suppliers on the basis of considerations such as quality, service, competitive pricing and technical abilities. Acceptance of personal gifts or gratuities from suppliers that could be construed as a means of inducing business with the Institute is totally inconsistent with this objective.

"Institute policy prohibits employees from accepting personal gifts or gratuities of any kind from suppliers. This includes the use of property or facilities, gift certificates, entertainment or other favors of value extended to employees or their families.

"Federal regulations, which govern procurement under contracts and grants, impose a like prohibition mandated by Public Law 99-634, known as the Anti-Kickback Enforcement Act of 1986. Kickback is defined as any money, fee, commission, credit, gift, gratuity, thing of value or compensation of any kind that is provided by a supplier, directly or indirectly, to any employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with procurement under a federal contract or grant."

Be safe during break

Since so many members of the undergraduate and graduate community leave the campus during the holiday break, the MIT Police has reminded community members to secure their offices and any valuables before leaving for vacation.

The level of activity in most buildings across the university will reduce dramatically during break, so any and all items of value should be in locked desks or cabinets.

Report any suspicious activity or suspicious people to the MIT Police at x3-1212. In an emergency, use a blue-light telephone or dial x100.

PHOTO / **DONNA COVENEY**

Catch some indoor air

Math junior Matt Garcia tests a mock half pipe set up in Lobby 10 on Monday, Dec. 12. His friend, Gabe Cira, built the model skateboard ramp for his architecture public art course.

Faculty scheduled to meet today

A regular meeting of the faculty will take place Wednesday, Dec. 21, at 3:30 p.m. in Room 32-141. The agenda includes:

- Vote on changes to the "Rules and Regulations of the Faculty," Section 1.51
- Course number proposal for the Biological Engineering Division
- Review of the master of engineering in civil and environmental engineering
- Review of the master of engineering in logistics
- Remarks from President Susan Hockfield
- Topics arising and questions for the president, the provost and the chancellor

DIGITALK

IAP with IT twist

IS&T is covering new trends and continuing concerns in its IAP 2006 offerings. Sessions include a sneak preview of the Human Resources payroll project; several courses on Linux, math software and geographic information systems; seminars on teaching with technology; a series on usability; and an open house in the Adaptive Technology for Information and Computing lab. For a complete listing of IS&T offerings, visit student.mit.edu/iap/nsis.html.

Web surveys at MIT

Planning a survey? You can get assistance from the MIT Web Survey Service, run jointly by IS&T and Institutional Research in the Office of the Provost. The service helps MIT groups plan, create and host surveys.

In the last two years, the MIT Web Survey Service administered close to 60 surveys for the community, and close to 80 surveys for members of consortiums to which MIT belongs. Recent survey topics included undergraduate satisfaction with campus resources; graduate student assessment of advising; alumni and parent satisfaction; faculty quality of life; commuting habits of students and employees; and feedback to improve publications.

The Office of the Provost maintains a schedule of known MIT surveys in TechTime, to help avoid overlap. To view the calendar, log into TechTime and search for "provost as a resource." You will be able to view the calendar for "Provost's Office: Surveys."

To learn more about the service, e-mail web-surveys@mit.edu or visit web.mit.edu/surveys/.

E-mail transitions

In consultation with its IT colleagues, IS&T is endorsing the move from Eudora to other e-mail applications: Apple Mail for Mac OS X and Outlook Express or Outlook 2003 for Windows and WebMail. All of these programs are offered only as Internet Mail Access Protocol (IMAP) clients at MIT. IMAP, the protocol that IS&T recommends, stores your e-mail on a server so that you can access it from almost any connected computer.

As part of this transition, IS&T will discontinue support for Eudora 5.2.1 (Windows) and Eudora 6.1 (Macintosh) on Jan. 31, 2006. Eudora 5.2.1 has a security vulnerability and Eudora 6.1 is well behind the current Macintosh version, Eudora 6.2.3.

To assist clients in switching to the recommended e-mail applications, IS&T will offer workshops during and after IAP and will also provide documentation and tools. For more information, including class and clinic schedules, visit web.mit.edu/ist/topics/email/migration.html. If you have questions or concerns, e-mail the e-mail migration team at e-mail-migration@mit.edu.

Directory access

Lightweight Directory Access Protocol (LDAP) lets MIT users access the MIT online directory via Outlook Express, Outlook 2003 or Apple Mail. Configuring your e-mail application for LDAP is simple; for instructions, go to web.mit.edu/ist/services/network/ldap/. Staff and students who prefer an integrated e-mail/calendar solution should remain with Oracle Connector for Outlook.

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Nightline's an ear when you need one

Sasha Brown
News Office

For close to 30 years, getting late-night support has been as easy as picking up the phone, thanks to Nightline, a peer-listening service run entirely by MIT students.

In operation since 1978, Nightline is available from 7 p.m. to 7 a.m. during fall and spring semesters, even on Thanksgiving. It is during these critical nighttime hours when students are the most vulnerable, said the male coordinator for Nightline, a senior. Those interviewed for this article asked not to be identified to protect the anonymity of Nightline.

The hotline only closes for winter and summer breaks and is staffed each night by both a male and female counselor. Callers may request either staffer depending on with whom they feel most comfortable.

"I really wanted to help people," the male coordinator said when asked why he applied to work for Nightline. He said Nightline receives two main types of calls.

The first kind of call is informational: What is the number for Domino's Pizza? When is Safe Ride coming? What was the score of the Patriot's game?

The second kind of call is more serious. These are the calls that deal with stress, eating disorders, depression, relationship issues and basically any other problem that a student might face during the college and graduate school years.

"I have seen a co-worker stay on the line for 10 hours," said the female coordinator, a senior.

All the calls that Nightline receives are completely anonymous with no way of being traced, stressed the male staffer.

For many students, anonymity is the crux of the hotline. "We can help the people who don't necessarily want to turn to their friends with a problem," said the female coordinator.

Nightline has a space in an undisclosed location on campus. Stocked with beds, a television and a computer, the space feels like home for the students who sleep there. Each staffer spends two nights a month at Nightline.

"All the staffers become really close because we are dealing with such emotional issues," said the male coordinator.

Nights spent at Nightline can be enjoyable. Staffers order pizza and watch movies together during downtime. But when the phone rings, the fun stops. "We are there for one reason and one reason only," said the male coordinator.

Would-be staffers must undergo an intense interview and training process. Applicants must handle mock calls and show that they are capable of building trust with an anonymous caller. "A lot of what we do is listen," said the female coordinator.

This year, there are 20 Nightline staffers, which is a fairly small staff. The hotline aims for 30 to 35 staffers. Those interested in joining Nightline must have one semester of school under their belts. Call Nightline at x3-8800 for more information.

Over the years, Nightline has become so ingrained in the MIT psyche that the hotline occasionally receives a call from an alumnus.

"They still remember the mnemonic," said the female coordinator with a laugh, referring to DEF-TUV TUV OPER OPER, a way to remember the hotline's number — 3-8800 — from the letters on the phone pad.

Professor Perry gets fellowship for biography of Scotswoman

Sarah H. Wright
News Office

Professor Ruth Perry of literature has been awarded a 2006-2007 fellowship from the National Endowment for the Humanities (NEH) to work on a biography of Anna Gordon Brown, an 18th century Scotswoman renowned among folklorists for her knowledge of the Scottish and English ballads of her time.

Ballads brought forward by Brown (1747-1818) were considered the aesthetic core of "The English and Scottish Popular Ballads," a seminal collection published in the late 1800s, but little is known about her life beyond the fact that she absorbed a lot of traditional ballads in her early youth and sang them to collectors later on, Perry said.

"I am very grateful to the NEH for funding this project and thrilled to be able to start sleuthing on the trail of Anna Gordon Brown," Perry said.

Perry's biography of Brown will explore "who she was and how she became the conduit for our common literary and musical heritage. It is the story of a woman's life during the Scottish enlightenment and the golden age of collecting folk songs at the end of the 18th century," she said.

Perry's earlier work on Brown's childhood explored the period when she learned ballads from her aunt and her aunt's servants and rural workers at a small estate in Braemer, Scotland.

Kenan Sahin Dean of the School of Humanities, Arts, and Social Sciences Philip S. Khoury said, "Winning major fellowships is nothing new for Ruth Perry, whose scholarship on the 18th century makes her one of the leading literary critics of this period on both sides of the Atlantic."

A ballad-singer and performer herself, Perry is an internationally acclaimed authority on 18th century English literature and culture, women's writing and feminist theory. Her current research and teaching interests include the history of collecting, preserving and performing folk music, particularly in 18th century England.

Her books include "Women, Letters and the Novel" (1980); "Mothering the Mind: Twelve Studies of Writers and Their Silent Partners" (1984); "The Celebrated Mary Astell" (1986); and "Novel Relations: The Transformation of Kinship in English Culture and Literature 1748-1818" (2004).

Perry has been awarded grants by the NEH and the National Science Foundation for projects on the social context of science and has held the prestigious Woodrow Wilson Fellowship as well as fellowships from the Bunting Institute, the Guggenheim Foundation, the American Council of Learned Societies and the Rockefeller Foundation at Bellagio, Italy.

PHOTOS / **DONNA COVENEY**

Biomedical Engineering Center Director Elazer Edelman, left, responds to seventh- and eighth-graders' questions about the science and ethics of stem cell research. Varden Avnor, right, addresses the stem cell panel, held Friday, Dec. 16, in 54-100.

Middle-schoolers ask tough science questions

Sarah H. Wright
News Office

Seventh- and eighth-grade students from the South Area Solomon Schecter Day School in Stoughton, Mass., engaged a panel of eminent research scientists from MIT and Harvard in a discussion of stem cell research, technology and ethics on Friday, Dec. 16, in Room 54-100.

The panelists for the morning event were Elazer Edelman, director of the Harvard-MIT Biomedical Engineering Center; Lita Nelsen, director of the MIT Technology Licensing Office; Daniel Brock, director of the Division of Medical Ethics at Harvard Medical School; Frederick Schoen, chief of cardiac pathology at Brigham and Women's Hospital and a faculty member of the Harvard-MIT Division of Health Sciences Technology (HST); and Lino da Silva Ferreira, a postdoctoral fellow at MIT researching the differentiation of human embryonic stem cells for tissue engineering.

Some of the students' questions mirrored those in contemporary media, such as, "How do you respond to criticism that stem cell research is killing human beings?"

Brock said, "Human embryos are clearly alive, so one is killing something. They're clearly human; they're not frogs. But we have to ask, have they the properties of a normal human, such as consciousness, suffering and the capacity to plan for the future?"

Edelman (S.B. 1978, S.M. 1979, Ph.D. 1984) surprised the youngsters by using his experience as a cardiac specialist to refocus the question "When does life begin?" to "When does life end?" as a way to widen the debate.

"Every day I make that decision. When do I tell someone their loved one is gone? When do I tell them there's hope? We don't know scientifically when life begins. But without stem cell research, we'll never be able to give any other than religious or cultural answers," he said.

PHOTOS / **DONNA COVENEY**

Panelist Lita Nelsen, director of the Technology Licensing Office, encourages youngsters to weigh the benefits of controversial research following a question by Adam Briscoe, right, at a Friday, Dec. 16, debate between scientists and middle school students.

Some students sought specifically to understand the role and motivations of mothers, asking, "Is it possible to save the embryo after you remove stem cells?", "Can the embryo be returned to the mother?" and "Why do women donate spare embryos to research?"

Nelsen, who earned the B.S. (1964) and M.S. (1966) in chemical engineering and an M.S. in management (1979), all from MIT, said, "Scientists weigh what potentially might result, in alleviating suffering and pain, from destroying that little dot-sized group of cells.

"Women weigh this, too. There are many embryos in the freezer that are left over from in vitro fertilization — embryos that are not going to be 'adopted' or implanted — and it's the mother who decides to donate them to further research, to help others," she said.

Schoen added that the benefits of stem cell research are not only the ends — a cure for Parkinson's, for instance — but also the means, as discoveries are made en route.

"We learn a lot along the way that may have benefits. The process of research generates a lot of information for scientists," said Schoen.

One teaching moment came when Edelman cleared up a basic vocabulary puzzle, brought on by youth and the cavernous nature of 54-100.

To the student who asked, "How can you tell the difference between embryos that are more or less valuable?" Edelman replied, "The issue is not whether it's valuable. It's whether the embryo is viable. Viable means, strictly, capable of becoming life."

Surveying the now-restless group of young teens, Edelman offered some advice. "If you choose a career in science, make sure you help people understand what you do. That will always be part of your work," he said.

Faces have a special place in the brain

Cathryn DeLude
McGovern Institute for Brain Research

Are you tempted to trade in last year's digital camera for a newer model with even more megapixels? Researchers who make images of the human brain have the same obsession with increasing their pixel count, which increases the sharpness (or "spatial resolution") of their images. And improvements in spatial resolution are happening as fast in brain imaging research as they are in digital camera technology.

Nancy Kanwisher and colleagues at the McGovern Institute for Brain Research at MIT are now using their higher- resolution scans to produce much more detailed images of the brain than were possible just a couple years ago. Just as "hi-def" TV shows clearer views of a football game, these finely grained images are providing new answers to some very old questions in brain research.

One such question hinges on whether the brain is comprised of highly specialized parts, each optimized to conduct a single, very specific function. Or is it instead a general-purpose device that handles many tasks but specializes in none?

Using the higher-resolution scans, the Kanwisher team now provides some of the strongest evidence ever reported for extreme specialization. Their study appeared in the Nov. 23 issue of The Journal of Neuroscience.

The study focuses on face recognition, long considered an example of brain specialization. In the 1990s, researchers including Kanwisher identified a region known as the fusiform face area (FFA) as a potential brain center for face recognition. They pointed to evidence from brain-imaging experiments, and to the fact that people with damage to this brain region cannot recognize faces, even those of their family and closest friends.

However, more recent brain-imaging experiments have challenged this claimed specialization by showing that this region also responds strongly when people see images of bodies and body parts, not just faces. The new study now answers this challenge and supports the original specialization theory.

The researchers suspected that the strong response of the face area to both faces and bodies might result from the blurring together of two distinct but neighboring brain regions that are too close together to distinguish at standard scanning resolutions.

To test this idea, they increased the resolution of their images (like increasing the megapixels on a digital camera) tenfold to get sharper images of brain function. Indeed, at this higher resolution they could clearly distinguish two neighboring regions. One was primarily active when people saw faces (not bodies), and the other when people saw bodies (not faces).

This finding supports the original claim that the face area is in fact dedicated exclusively to face processing. The results further demonstrate a similar degree of specialization for the new "body region" next door.

Kanwisher is the Ellen Swallow Richards Professor of Cognitive Neuroscience.

PHOTO / **DONNA COVENEY**

Do you recognize this face? Researchers at the McGovern Institute have made inroads into understanding what happens in the brain when a person recognizes a face. No word on whether a face drawn in the snow counts.

Her colleagues on this work are Rebecca Frye Schwarzlose, a graduate student in brain and cognitive sciences, and Christopher Baker, a postdoctoral researcher in the department.

The research was supported by the National Institutes of Health, the National Center for Research Resources, the Mind Institute, and the National Science Foundation's Graduate Research Fellowship Program.

Course 2.12 sends robots to the rescue

Sarah H. Wright
News Office

Images of men, women and children stranded on rooftops or trapped amid mountains of rubble following natural disasters leave many with a sense of helplessness.

But those same images inspired the designers of mechanical engineering course 2.12 to apply robotics technology to disaster response and rescue missions.

Students in the course demonstrated their rescue robots on Wednesday, Dec. 14, in the d'Arbeloff Lab, Room 1-005.

Each 2.12 robot — a hotel refrigerator-shaped platform guided by an onboard Linux computer — had to navigate a space displaying photo images from Hurricane Katrina, the 2004 Southeast Indian tsunami and the 1995 Kobe earthquake in Japan. The robots had to locate three different long-haired dolls, pluck each from "her" individual catastrophe scene, carry her to an emergency room and drop her to safety.

Various sensors, including a laser range scanner, helped the 'bots locate their dolls — a blonde, a brunette and a redhead — all barefoot and dressed in casual summer clothes. A manipulator arm did the heavy lifting, aided by a large magnet attached to each doll's belly.

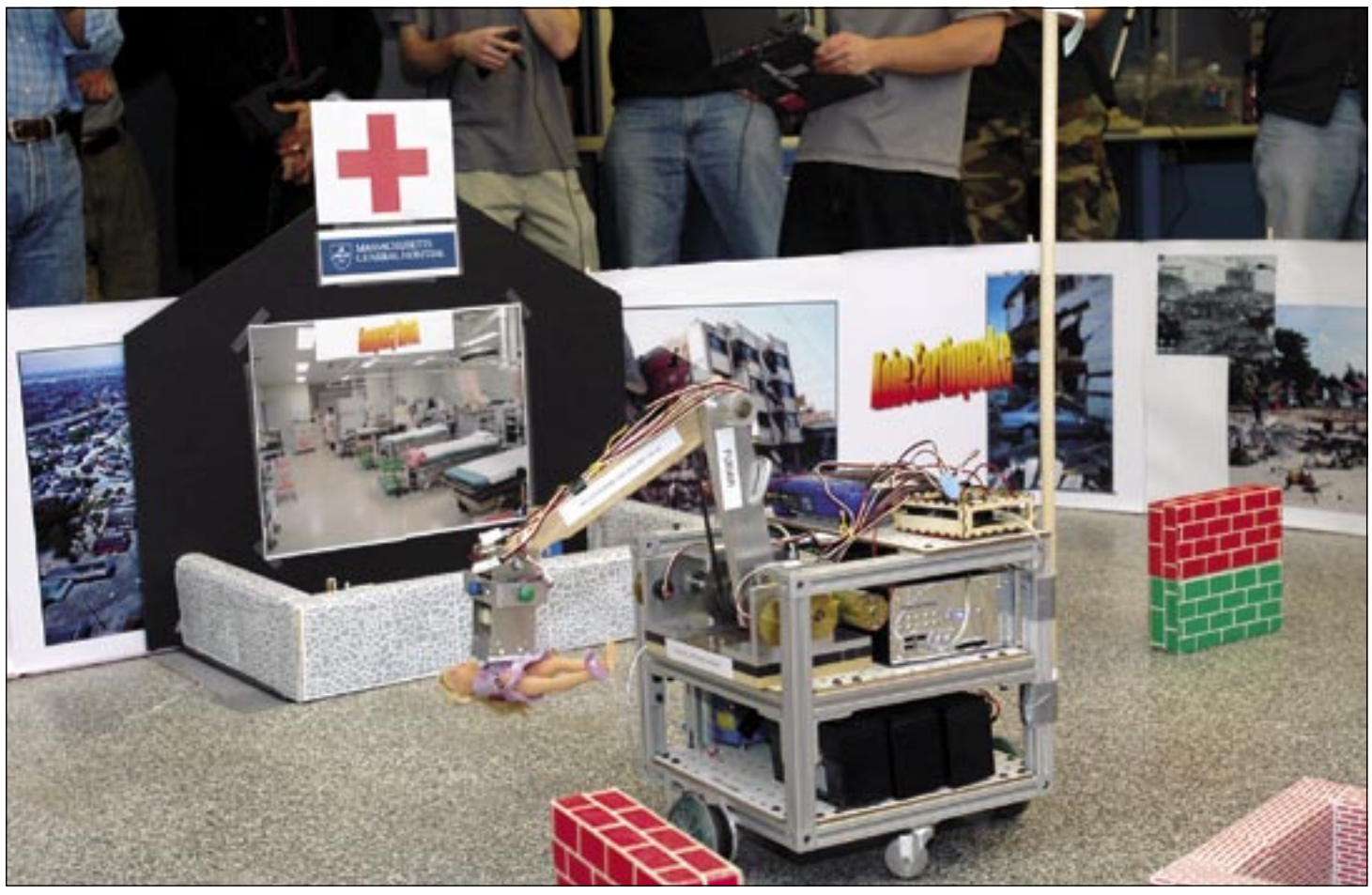

PHOTO / **DONNA COVENEY**

A rescue robot carries a doll, representing a victim of disaster, to the 'emergency room' during the course 2.12 demonstration held Wednesday, Dec. 14, in the d'Arbeloff Lab.

Eric Wade, teaching assistant for 2.12, noted that the rescue robots had to be able to distinguish houses from debris en route to locating casualties, and also that demos like Wednesday's offer built-in suspense.

"The students were responsible for the robot fabrication, and for writing the code that runs the robots. All tasks are preprogrammed into the robot, and have to be completed without any instruction from the builders," he said.

Harry Asada, professor of mechanical engineering, and John Leonard, associate professor of mechanical engineering, teach 2.12.

"These students stay up all night to get it right. They've had just five weeks to do this. If I could give them anything, it would be more time," Leonard said the day before the robots went live as rescue workers.

MIT team analyzes wind energy potential in Northeast

Nancy Stauffer
MIT Laboratory for Energy and the Environment

There's more to determining the value of wind power than knowing which way the wind blows — or even how hard.

MIT researchers studying winds off the Northeast coast have found that estimating the potential environmental benefits from wind and other renewables requires a detailed understanding of the dynamics of both renewable resources and conventional power generation.

Data show that wind-energy facilities would generate far more electricity in winter, because that's when winds are strongest. But the need for electricity is greatest in summer, when air conditioners are going full blast.

So, what are the benefits of wind energy?

According to the MIT study, wintertime wind power will replace electricity generated by relatively inefficient and dirty fossil fuel power plants. However, since wind, electricity demand, fossil fuel prices and investment in power generation are so variable, the MIT team is now performing a more comprehensive analysis.

This work follows a similar study on solar power. In 2004, Stephen R. Connors and colleagues in the Laboratory for Energy and the Environment's Analysis Group for Regional Energy Alternatives (AGREA) reported that siting solar photovoltaic (PV) systems where sunshine is most abundant does not always lead to the biggest emissions savings. By looking at detailed historical data, they found that in some cases a more important factor is the emissions level of the conventional power plant that is being turned up or down in response to the available solar power.

Those findings elicited considerable interest from state regulators and power system operators who need hard estimates of potential emissions reductions from using local renewable resources, especially when there are local concerns over siting.

Now, Connors and Michael Berlinski, a graduate student in MIT's Engineering Systems Division, have turned their attention to the environmental benefits of using wind-energy systems off New England. As in the solar study, they performed intensive "data mining" using numerous National Oceanic and Atmospheric Administration (NOAA), Environmental Protection Agency and other data sources tracking windspeeds, electricity demand and power systems operations over time. Using hourly windspeeds collected by NOAA's network of data buoys, they calculated the electricity that could have come from various offshore sites had wind turbines been located there.

The data showed that the potential for wind-generated electricity is highest in the winter in the Northeast.

"You would think that wind power is not a good fit for New England because it's not there when you need it most — midday during the summer when demand and prices are high," said Connors. "But from an emissions-reduction perspective it actually fits very well."

He and Berlinski found that in winter, fossil units with relatively high greenhouse gas and other emissions are more likely to be backed off, or turned down, when electricity from wind farms becomes available. Thus, when wind farms operate the most, they reduce the operation of some of New England's dirtiest conventional plants.

Comparing the solar and wind results highlights the importance of tracking the "mode" in which the power system is operating. In winter, when wind generation peaks, the power system is dominated by older, lower-cost plants burning coal or oil. In summer, when solar generation peaks, the power system includes more natural-gas-burning plants to meet high electricity demand. Because of their higher cost, natural gas plants will be backed off first. But natural gas plants are generally more fuel efficient than plants that burn other fossil fuels. Thus, the emissions reductions per kilowatt-hour will not be as dramatic.

"So here's the research challenge," said Connors. "Before we can calculate the true environmental benefits of using renewables, we need to be able to figure out the operating mode of the whole electric power system in a particular region and over time." The usual static data — annual wind power and annual power plant emissions, for example — are insufficient.

The wind power research was supported by the Massachusetts Renewable Energy Trust.

Blood researchers find disease mechanism

Alyssa Kneller
Whitehead Institute

Approximately 80,000 to 100,000 people in the United States suffer from myeloproliferative disease, a broad category of ailments characterized by overproduction of different types of blood cells. Often these diseases lead to cancers of blood cells.

Now researchers at MIT, the Whitehead Institute for Biomedical Research and Brigham and Women's Hospital have discovered an unusual mechanism underlying this condition. Their findings, published online in the Proceedings of the National Academy of Sciences the week of Dec. 19, could lay the foundation for future drugs to treat the disorders.

As people age, their genes acquire mutations. In a patient with myeloproliferative disease, a mutation occurs in a protein called a kinase, that is, a protein that adds a small molecule called a phosphate to other proteins, in this case proteins involved in blood-cell growth. But the mutation alone will not produce the disease. The mutant kinase, named JAK2V617F, causes the condition only after binding to another molecule. This indirect mechanism for myeloproliferative disease is unusual because many other kinase mutations lead directly to cell proliferation.

"Surprisingly, this mutant kinase is completely dependent on a cell-surface protein for its transforming potential," says MIT biology professor and Whitehead member Harvey Lodish. His lab made the discovery in collaboration with D. Gary Gilliland of Brigham and Women's. Gilliland is also a Howard Hughes Medical Institute investigator.

Gilliland's lab was one of several to identify the precise genetic mutation responsible for myeloproliferative disease when the researchers discovered that the exact same genetic mutation in a kinase called JAK2 causes a number of distinct disorders that fall under the myeloproliferative disease umbrella. After publishing this finding in Cancer Cell in April, Gilliland turned to Lodish lab researchers, who designed experiments that shed light on the mechanism behind the disease.

The mutant kinase floats around the cell, minding its own business, until it binds to a surface protein called a cytokine receptor, which spans the cell membrane and receives hormone signals from the outside. In a normal cell, the kinase remains inactive until a hormone lands on the receptor and activates it. But the mutated kinase doesn't wait for this external signal. Instead, when two mutated kinases are tethered to adjacent cytokine receptors, they activate each other automatically and trigger a series of events that lead to cell proliferation.

This can cause a number of problems. For example, some patients with myeloproliferative disease develop polycythemia vera, a disorder characterized by high red blood cell counts. Others develop myelofibrosis — their bone marrow becomes dense as fibroblasts multiply.

The involvement of a cytokine receptor explains, in part, why one mutation can produce distinct disorders. Researchers found three different cytokine receptors that interact with the mutated kinase. Thus the mutant kinase is tied to three unique signaling pathways, each of which is associated with a specific type of blood cell.

"Each disorder might depend on a different receptor and the downstream makeup of the individual cell," says Xiaohui Lu, a postdoctoral associate in the Lodish lab and co-lead author on the paper. This information could help pharmaceutical companies develop drugs to treat the disorders, since they now know which cytokine receptors and blood cell production pathways to target.

This study was supported by the National Institutes of Health, the Leukemia and Lymphoma Society, the Doris Duke Charitable Foundation, the Howard Hughes Medical Institute and Amgen Inc.

IAP

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chocolate in Boston? Or just want to take a tour around Boston and eat chocolate? Go on a tour of Boston that stops at chocolate hot spots. You can buy or eat the best chocolate Boston has to offer. Sponsored by the Laboratory for Chocolate Science.

Arts and crafts

Ikebana: The Art of Japanese Flower Arranging
Hiroko Matsuyama
Tuesday, Jan. 24, from 1 to 2:30 p.m. Room E38-714. Advance sign-up required. Limit: 15 participants. $10 material fee.

Hiroko Matsuyama, an Ohara School of Ikebana instructor, will demonstrate the basics of this ancient art. Participants will create their own flower arrangements. Contact: x8-8208.

Finance and economics

Searching for a Mate: Evidence From Speed Dating Experiments?
Ray Fisman of Columbia University
Tuesday, Jan. 10, from 2 to 3 p.m. Room E51-372.

Economists don't believe in survey results. They call it "cheap talk." This applies to an even greater extent in realms where individuals have trouble admitting their true preferences to themselves, let alone reporting these preferences to others. This class studies dating preferences through the revealed choices of real-life daters in a research speed-dating service that was set up for this purpose. This talk will analyze what men and women really want, as revealed by their actions in a real dating situation. Contact: x3-3971.

Languages

Hebrew Literacy Marathon
Hasia Richman
Wednesday, Jan. 25, and Thursday, Jan. 26, from 4 to 8 p.m. Building W11 – Small Dining. Sign up by Jan. 9. Limit: 25 participants. $30 material fee.

If you know anything at all about Jewish living or Jewish culture, but you don't know even one letter of the Hebrew alphabet, this class is for you. Be part of an eight-hour Hebrew reading marathon. You will learn the aleph-bet of Hebrew, become familiar with 300 words for Jewish living, and develop a love and appreciation for Hebrew. No prior knowledge of Hebrew required. Contact: x3-2982.

Leadership skills

Sipping From the Fire Hose: Balancing Academics, Friendship, Family and a Social Life
Tom Robinson, Linda Noel
Wednesday, Jan. 11, from noon to 1 p.m. Room 1-135. Limit: 25 participants.

Have you ever dashed across the Massachusetts Avenue crosswalk with two seconds left on the clock because you're late for an appointment? Ever skipped lunch or operated on too little sleep? Do you feel like you have to rush from commitment to commitment in order to meet your obligations? This workshop will look at several ways to develop strategies that will help you during those all-too-familiar crunch times here at MIT! What better time to think more globally about balance in your life than during IAP. Please bring your lunch. Drinks and dessert will be provided. Contact: x3-7605.

Literature

The 16th Annual Salute to Dr. Seuss
Henry Jenkins
Monday, Jan. 23, from 5 to 6 p.m.

Gather around, boys and girls of all ages, for a celebration of the sublime and wacky world of Dr. Seuss. You will hear Professor Henry Jenkins read works and talk about Seuss's relationship to modern art and popular culture. Also on tap: A screening of the good doctor's remarkable live action feature film, "5000 Fingers of Dr. T." An MIT tradition marches forward. Contact: x3-5038.

Miscellaneous

History and Mystery of the Tarot
Daniel Barkowitz
Tuesdays, Jan. 10 through Jan. 31, from noon to 1:30 p.m. No limit, but participants must sign up by Dec. 24.

Classes will explore the history, origin, use and art of the Tarot. Students should purchase the Rider-Waite Tarot Deck or similar learning deck for use in class. Students are welcome at any session but are encouraged to attend all. Contact: x8-5612.

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PHOTO / **DONNA COVENEY**

Game on

This squid hung in a stairwell down the Infinite Corridor on Monday, Dec. 12, as part of a Super Mario hack that started in Lobby 7 and continued all the way down the hall.

IAP series opens book on poetry

Sarah H. Wright
News Office

Now in its ninth consecutive season, the IAP series called Pleasures of Poetry offers a varied literary feast this year, with poetry by classic figures such as Milton, Keats and Tennyson, a sampling of Vietnamese poetry, contemporary work by John Ashbery and Jack Gilbert, biblical songs of liberation and the Kaddish for reading and discussion.

Literature Professor David Thorburn, director of the MIT Communications Forum, is the series founder and organizer.

"I'm always surprised and inspired by the diversity and aesthetic energy of the poems our moderators choose. We're all volunteers, and each discussion leader selects poems that are personal favorites. This year the range of contemporary poetry is especially notable, but there is also a good selection of canonical English poems, as well as several provocative, unexpected texts. Our audiences are always a wonderful mix of students, faculty and staff from all parts of the Institute. I love the core message this activity sends every January: Poetry thrives at MIT," Thorburn said.

Mary Fuller, associate professor of literature, will open the series on Jan. 9 with a reading and discussion of the first 75 lines of "Paradise Lost" by John Milton.

Noting with enthusiasm the "density of Milton's style and the rigor of his thinking," Fuller said of her selection, "Behind the fall of humanity from paradise, Milton finds a cause in the prior fall of Satan and by line 75 we are within Satan's mind, looking out at hell."

Who could resist?

The poetry series meets weekdays throughout IAP for one-hour sessions. All are free and open to the public; they are held in Room 14E-304 from 1 to 2 p.m. through Feb. 3.

In the first week of IAP, Fuller's session on Milton will be followed by sessions led by literature faculty Howard Eiland, on John Keats's "Ode to Melancholy" (Jan. 10); Stephen Tapscott, on works by Robert Lowell and Elizabeth Bishop (Jan. 11); Wyn Kelley on Aphra Behn and Jonathan Swift (Jan. 12); and James Buzard leading a session on Alfred Lord Tennyson's poems, "Ulysses" and "Tithonus" (Jan. 13).

Literature faculty set to moderate other sessions include Thorburn on works by Linda Gregerson (Jan. 20); John Hildebidle on Billy Collins (Jan. 24); Anthony Lioi on Galway Kinnell (Jan. 26), and James Cain on Italian sonnets (Feb. 2).

For more information or to receive a packet of the poems, please e-mail Julie Saunders at juliec@mit.edu.

Resource center's 'spa' helps students relax

Sasha Brown
News Office

For years, at the end of each semester, tired and stressed-out students have had a place to decompress right in Building 7.

On the last two days of classes, just before finals, the Academic Resource Center transforms into a space for students to nosh, chat and mingle before finals begin. Last week, the event was offered on Dec. 13 and 14 from 10 a.m. to 2 p.m.

Known as MIT Spa in the fall semester and Infinite Oasis in the spring, the end-of-the-semester celebration has varied offerings depending on the season. MIT Spa features hot teas, hot chocolate and other warm drinks, while the Infinite Oasis offers summer drinks: lemonade, iced tea and various juices. Regardless of the season, MIT students flock to the event each time, said Elizabeth Young, assistant dean of new student programming.

"It is just something different," said Young. "The place is always packed."

In addition to offering various "kiddy" snacks like fruit chews, granola bars, Goldfish crackers and juice boxes, Academic Resources also has educators from the Center for Health Promotion and Wellness on hand to discuss stress management. Chief among the recommendations for stressed students is sleep, followed by healthy eating. The educators also encourage list-making to tackle mounting to-do lists.

Starting last spring, the event also features a massage therapist who gives 10-minute chair massages for two hours each day. "She fills up immediately," said Young, laughing. Since most people carry their tension in the neck and shoulders, the therapist focuses her work there.

Although the MIT Spa is open just a few days a year, the Academic Resource Center is open to students year-round. "We are always a very loud, stop-in kind of place," said Young about her office. "It is a nice place to be."

PHOTO / **MURAT ACAR, MIT**

A crowd watching 'The Apprentice 4' live finale in MIT's Kresge Auditorium on Dec. 15 erupts in cheers as Randal Pinkett is chosen to be Donald Trump's apprentice.

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MIT Campus Sustainability — Challenges and Responses
Steven Lanou

Tuesday, Jan. 10, from noon to 1 p.m. Room 56-114. Sign up by Jan. 6. Limit: 60 participants.

Presentation and discussion on MIT's campus environmental challenges and on programs and activities to minimize their impact. Includes special presentation on the recent solar panel initiative. Moderated by Steven Lanou, program manager for sustainability initiatives (Environmental Programs Office). Contact: nboyce@mit.edu.

Philosophy

Philosophy Trivia Quiz
Helena de Bres

Friday, Feb. 3, from 2 to 4 p.m. Room 32-D808.

Pit your capacity for abstract thought against that of the professionals, at what promises to be the most "profoundly trivial" event this IAP. Which famous philosopher rescued Naomi Campbell from the clutches of Mike Tyson with the words "I suggest we talk about this like rational men"? What does Karl Marx have in common with Jude Law? Does "Metaphysics" come before or after "Physics"? What is the meaning of life, anyway? All this and more! MIT Philosophy: If it's deep, we've thought it. Come get yourself some of the action. Contact: x8-8084.

Politics and social science

U.S. Special Operations Forces Roles and Missions
Lt. Col. Chris Conner

Tuesday, Jan. 31, from 9 a.m. to 4 p.m. Room E38-714. Limit: 20 participants.

The use of U.S. Special Operations Forces has figured prominently in the response to the 9/11 attacks and in Operation Iraqi Freedom. Consequently, much has been written regarding their roles, training and recent operations. This class is designed to familiarize you with the actual charter of these unconventional warriors as well as to dispel some myths, rumors and innuendos. Contact: x8-9440.

PINKETT

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decisions — he dragged all of his employees to a party store for supplies and did not have a contingency plan for what would happen if his softball game were rained out, which happened. But Pinkett's grace under pressure and charm won over his clients.

At the end of the finale, Trump asked Pinkett if Rebecca should also be hired, but Pinkett said he thought the night belonged to him. "If you're going to hire someone tonight, it should be one," he said. "It's not The Apprenti, it's The Apprentice."

Pinkett's final competitor could simply not top his academic credentials and business acumen. Pinkett, 34, holds five degrees, including one from Oxford earned on a Rhodes Scholarship and three from MIT: a master's in electrical engineering, an M.B.A. in the Leaders for Manufacturing (LFM) Program, and a Ph.D. from the Media Laboratory. He's also founded five companies, the latest of which is Newark, N.J.-based BCT Partners, a management, technology and policy consulting firm.

"There's no question that a lot of the organizational development and strategy and communication skills that I honed at MIT were applied on the show," said Pinkett, citing LFM's leadership activities and exercises as important to his training. "All those skills that have to do with being a leader and leading people I think I applied and applied effectively on the show."

Pinkett did face some troublesome moments: learning of his grandmother's death in episode one, missing a typo on a promotional poster, and having a teammate question his creativity in front of Trump. But never shying away from leadership and leading by example served him well. "My strategy was to be fair and to treat people with respect," he said. "I feel like I came across true to who I am and represented the kind of business person that I am in a very positive light."

AWARDS & HONORS

"The Housewives of Mannheim," a play by Associate Provost for the Arts **Alan Brody**, has won the Bloomington Playwrights Project (BPP) Reva Shiner Full Length Play Contest. There were more than 300 entries for the BPP award, which includes a cash prize and full production of the winning play. The drama, set in 1944 working-class Brooklyn, deals with homosexuality, anti-Semitism and gender roles. It will be staged Feb. 9-25 at the BPP's new theater in Bloomington, Ind. For more information, visit www.newplays.org.

Javier Garcia-Martinez, a recent MIT postdoctoral fellow, has been named one of Europe's top younger chemists of 2005 and awarded the Europa Medal and 1,000 euro prize for his work on a novel form of carbon prepared by self-assembly. Garcia-Martinez conducted the prize-winning research on nanostructured carbon while working as a postdoc in MIT's chemical engineering department.

Michael Athans, professor emeritus of electrical engineering and computer science, received a medal from the Polish Academy of Sciences on June 30 for his contributions to optimal control, following his plenary lecture at the 25th Polish Automation Conference in Warsaw. He was also elected a life fellow of the Institute of Electrical and Electronic Engineers, effective Jan. 1, 2006. Athans has been a visiting research professor at the Instituto Superior Tecnico in Lisbon, Portugal, for the past five years.

Richard Locke, Alvin J. Siteman Professor of Entrepreneurship and Political Science and director of the Sloan School's Global Entrepreneurship Laboratory, was recently recognized as a Beyond Grey Pinstripes Faculty Pioneer by the Aspen Institute. Locke is one of six faculty members in the nation to receive this year's honor, which goes to "exceptional scholars and excellent teachers who are leading the way in incorporating social and environmental issues into their teaching and research."

Arup K. Chakraborty, Robert T. Haslam Professor of Chemical Engineering, professor of chemistry and professor of biological engineering, recently received the Presidential Citation for Outstanding Achievement from University of Delaware President David P. Roselle.

Chakraborty, who earned a Ph.D. from the University of Delaware in 1989, was one of six Delaware alumni honored with the award, which went to Delaware graduates of the past 20 years who "exhibit great promise in their professional and public service activities."

Professor **Paul Lagace** of aeronautics/astronautics has been elected a fellow by the American Society of Composites. Fellows are long-standing members of the society who have made significant contributions to the advancement of composite technology.

Ramana Nanda, a Ph.D. candidate in strategy and international management at the Sloan School of Management, has won the Kauffman Dissertation Fellowship for his dissertation research program. Nanda is doing large-scale studies of entrepreneurial activities in Denmark and India.

CLASSIFIED ADS

Members of the MIT community may submit one classified ad each issue. Ads can be resubmitted, but not two weeks 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

Dark green leather Barcalounger, excellent shape. $375. Call 617-268-0880.

1967 Gretsch Nashville Electric Guitar w/ professional repaint & refurb $1650/bst. Have pics. E-mail bjmagoon@mit.edu.

HOUSING

Everett - 4 BR house for rent. Close to T & all major highways. No utilities, no smoking, no pets. $1600, avail. immediately. Call 617-389-8842.

Seeking roommate for 2BR apartment in Arlington. Available 1/1/06. $600 + utilities. Near Mass. Ave. and #77 and 79 buses to Harvard and Alewife. ~7 mile drive to Lincoln Lab. Contact David at dheggestad@ll.mit.edu or 781-316-2346 (home), 781-981-2329 (work).

Paris — 40 sq. m. flat in center of Paris, 2 min. walk to Louvre. Avail. Jan. 2 or 3 to end of April. Living rm w/ sleep sofa, BR w/ mezzanine, desk underneath. Sep. bathroom w/ bath, sep. furnished kitchen w/ washing machine. Wireless Internet connection, unlimited national phone calls. 1200 euros/month, all included. Sec. deposit req. Pics avail. Contact solveigsimha@hotmail.com.

STUDENT EMPLOYMENT

Dollars and Sense Magazine, which educates the public about economic issues in non-technical language, seeks a detail oriented, meticulous, mature individual to assist w/ data entry, mailings & phone work. Job tasks include: Assisting the book editor, business manager & development director, plus mailings, data entry, filing & faxing. Training & oversight provided. Strong office skills required. Half-year to one-year position avail. approx. Jan. 12. Contact Chris Sturr, [redacted], 617-447-2177 x205, $11-$12/hr.

Asian Community Development Corp. Directed project work avail. within one of our program areas: urban/community planning, economic development, physical development & community organizing. Students that make a one year commitment will develop & implement their own program, w/ needs of the community in mind. Must have interest in learning more about the Asian community in Boston. Students that speak Cantonese, Toisanese & Mandarin are highly encouraged to apply. Contact Daniel Stolkowski, Daniel@aisancdc.org, 617-482-2380 x206 $8-$10/hr.

Wodiczko honored by exhibits in Poland

Krzysztof Wodiczko, professor of visual arts in the Department of Architecture, is known worldwide for his large-scale, politically charged video projections onto landmarks and buildings. But he's particularly beloved in his native Poland.

Recently, he returned to Poland in conjunction with two exhibitions of his work, one in Krakow and the other in Warsaw.

Krakow was the site of Wodiczko's first projection nearly 10 years ago, an installation that incorporated movement and sound. Created in 1996, the work transformed the single tower of the municipal building on Main Square into a gigantic person, with the cupola as the head and the clock suggesting a face. Projections of hands helped bring to life the transmitted voices of drug addicts, homosexuals, the disabled, and women victims of family violence.

Wodiczko

Wodiczko returned to Krakow last month for the opening of the first retrospective exhibit of films documenting his public projections. "Public Projections: 1996-2004," held at Krakow's premier gallery for modern and contemporary art, Bunkier Sztuki, from Nov. 9 through Dec. 11, featured five films documenting Wodiczko's projections in Krakow, Boston, Hiroshima, Tijuana and St. Louis.

In Warsaw, Wodiczko's works are currently on view through Jan. 22 at the Zacheta National Gallery of Art. The exhibition's title, "Monument Therapy," refers to a phrase coined by Wodiczko to describe two concepts central to his art: the memorial and therapy. The Nov. 19 opening was preceded by a projection onto the gallery's facade that represented the problems of female victims of violence in contemporary Poland. The screening of a filmed documentary of this opening projection is included in the gallery as part of the show.

MIT staffer finds himself in folk

This is one of an occasional series of articles on MIT staff members who are also artists.

Lynn Heinemann
Office of the Arts

How does someone who made his professional debut as a classical harpsichordist at Carnegie Recital Hall at age 15 take up the accordion 15 years later … and become a sought-after accompanist on the international folk dance scene?

Ask Tom Pixton, who, in addition to maintaining a flourishing and prolific musical career, works full time at MIT's Publishing Services Bureau as a publishing advisor.

Pixton, who will be performing with his Pinewoods Band at the Folk Arts Center of New England's New Year's Eve party, picked up the accordion relatively late in life, but says, "Within a day, I knew this was my instrument." He has since founded three dance bands and become an expert in Romanian, Scottish and Cajun music.

ARTISTS AT WORK

Pixton's roots in music go back to his childhood in a progressive Quaker household in Philadelphia. He was introduced to the harpsichord at the Germantown Friends School, and at age 7 spent a year in Morocco with his family through the American Friends Service Committee, the international Quaker organization that sponsors projects around the world.

Pixton became a professional harpsichordist, released four solo recordings on that instrument and actually built 18 harpsichords, which he sold. Then, when he was 30, he decided that the harpsichord was a "self-indulgent and obscure way to communicate music with an audience." It was also, he said, "not a career that would support my family in any consistent way."

So, in 1984, he and his wife, Barbara, who had been teaching piano, left their musical careers to delve into another, more potentially lucrative branch of the arts. She became a decorative artist; he developed his skills in graphic arts.

But Pixton found he just couldn't stray too far from music. One of the first large projects he tackled in his new job was a songbook for the Cambridge Christmas Revels, an organization that Pixton would later join as performing musician.

The ex-harpsichordist recalls his first days as a nonmusician as a period with unexpected chunks of free time. The Pixtons began to attend Boston-area folk dances where they were introduced to ethnic dance music such as New England contra, Balkan, folk and traditional Scottish music.

When a friend heard Pixton picking out the dance melodies on his harpsichord, she suggested he try an accordion her aunt had. "It was an auspicious suggestion," says Pixton. "Within minutes of strapping it on, all that suppressed need to perform unleashed itself." He performed on the accordion at a dance merely three weeks later, and hasn't stopped since.

In 1992, Pixton founded Flying Tomatoes, an ensemble devoted to providing live music for international folk dancing. That same year, the Folk Arts Center of New England asked Pixton to organize the music for their summer dance camps. Under his leadership, the Pinewoods Band was reorganized to play for all the dance sessions, and the band has since become legendary. It is the first international folk dance band to be engaged to play at festivals throughout the United States and Canada.

It was natural to Pixton to start his own ensembles. "I had my own strong ideas about how the music should be interpreted and how live music would be integrated into existing dance events that used recordings," he says. He also observes that the recreational dance community includes many former classical musicians, ripe for recruitment in his groups. His wife often performs in his groups and now plays double bass, santouri, guitar, flute, violin, accordion and panflute in addition to the piano. Their careers have united again.

PHOTO / **SUSAN WILSON**

Tom Pixton, publishing advisor at MIT, will play the accordian at the Folk Arts Center of New England's New Year's Eve party.

Pixton says that playing for dances is a lot of fun. "It's an interactive sport, where the musicians connect musically with each other and with the dancers, and the dancers in turn transmit their energy, if they are appropriately inspired, back to the musicians," he says. "It's a very rewarding kind of performance art."

Dancers can interact with Pixton and his Pinewoods Band at the Folk Arts Center of New England's party on Dec. 31 from 9 p.m. to 1 a.m. at the Trinity Episcopal Church (11 Homer St., Newton Center). Admission is $20, $17 for FAC members, $10 students, free for children under 6. For more information, call 781-662-7475 or visit www.facone.org.

For more information on Tom Pixton, visit www.pixton.org/.

IAP courses open windows on art, music and more

Much of MIT is quiet during January's Independent Activities Period (IAP), but opportunities for creativity and learning abound — often in areas not normally associated with academia. You can sculpt with chocolate, consider the literary techniques of Dr. Seuss and examine creativity in a class titled "It's All in Your Head."

The following is a sampling of this year's arts-related offerings. For more IAP listings, see page 1 or visit web.mit.edu/iap.

Music

The Department of Mathematics and the Experimental Study Group are hosting concerts. And a couple of workshops are being offered for drummers: one, on Middle Eastern rhythms, centers on using an hourglass-shaped drum called the dara bukka/dumbeg; another focuses on the traditional Korean art form called Pungmul, which includes rituals, drumming, dance and acrobatics.

Nonmusicians can chime in with sessions on "change ringing," a traditional British style of ringing bells. Participants will visit the towers of Boston's Old North Church and the Church of the Advent near Beacon Hill and will have a chance to make music. A single rope controls each bell, which can weigh up to a ton. Those who want to tintinnabulate with less tonnage can join an introduction to change ringing on handbells.

Theater and dance

Looking for some drama? Learn the basics of improv comedy with Roadkill Buffet. Want something more traditional? Listen for iambic pentameter during Shakespeare Ensemble's scene night. For movement more elegant than stomping the slush off your boots, try lessons in waltz, salsa, tango, swing and folk dancing. Sessions in contra or square dancing can also help ward off the chill.

'Man with Hat,' a 1984 woodcut by Aaron Fink, is part of an exhibit opening at The Dean's Gallery in the Sloan School of Management on Jan. 3.

Film

IAP is always a good time to catch some movies, not only in the theaters but right here on campus — where they're usually free or dirt-cheap. January offerings range from Anime Club screenings of some of the finest animation in the world to Quentin Taratino's "Reservoir Dogs." Also on tap: an MIT film and video marathon retrospective, which will feature vintage footage of the 1926 frat house gang of Phi Beta Epsilon, profiles of Doc Edgerton and Doc Draper, and more. Hands-on types can create their own films in "Storytelling and Games in the Digital Age." Student teams in that class will develop story concepts for various media, including motion picture visual effects and computer games.

Visual arts

Winter is a good time to tap into your inner artist. IAP courses offer opportunities to paint, silkscreen, create ceramic rattles and whistles, and develop your photographic and darkroom skills. Learn to combine animation, video and sculpture in a three-dimensional space in a course called "Sculpting With Light." Or, get out of the studio for an architectural tour of the Boston Public Library, the magnificent 1895 Renaissance Revival building that features mosaics, wall paintings, and murals by Pierre Puvis de Chauvannes and John Singer Sargent.

Something completely different

White, milk or dark chocolate? Gobble up your creations in such classes as "Experimental Chocolate Truffle-Making" and the "Battle of the Brownies." IAP also offers a chocolate sculpture workshop, a class on how to make chain mail (the flexible armor made from metal rings that was used in combat for more 1,000 years), and the 16th annual salute to Dr. Seuss.

Exhibitions

Been to the MIT Museum lately? Now's your chance. Except for Dec. 24 and 25, when all of MIT is closed, the museum will be open Tuesday to Friday from 10 a.m. to 5 p.m. and weekends from noon to 5 p.m. throughout December and January.

"COLLISIONbox #2: Cars and Stars," a new multimedia installation, opens at the museum on Friday, Jan. 20. The show features Andy Zimmermann's multimedia installation "Cars and Stars," which projects digital animation and video onto a three-dimensional sculpture with accompanying digital sound composition. Zimmerman describes the installation as "a song cycle; a meditation on the circadian rhythm of traffic jams."

You can still catch the tail end of a couple of other MIT exhibitions in January as well:

Scott Globus' "Scientific Settings: Photos of MIT Labs" is on view at the Compton Gallery through Jan. 6. Postdoctoral associate Max Berniker's exhibition of figure drawings, "10 Minutes With Max," runs through Jan. 11 at the Wiesner Student Gallery.

Meanwhile, on the opposite side of campus, poker players, coffee cups, knives, forks and cigars will be among the mundane items portrayed in "Aaron Fink: Elements, and Other Prints," opening at The Dean's Gallery in the Sloan School of Management on Tuesday, Jan. 3. Located in Room E52-466, The Dean's Gallery is open weekdays from 9 a.m. to 5 p.m.

PHOTO / **DONNA COVENEY**

FEBRUARY: MIT researchers reported their work on the 'Robo-Toddler.' The news was picked up around the world.

PHOTO / **DONNA COVENEY**

JUNE: It was sunny and warm for MIT's 139th Commencement on June 3. Irwin Jacobs, the co-founder and CEO of Qualcomm, gave the main address.

PHOTO / **DONNA COVENEY**

OCTOBER: The Bayou Bash brought New Orleans musicians to campus Oct. 30 in one of many initiatives on campus spurred by Hurricane Katrina, which devastated the Gulf Coast on Aug. 29. Hurricane Rita hit Sept. 26.

2005: The year in pictures

PHOTO / **DONNA COVENEY**

DECEMBER: MIT dedicates the new Brain and Cognitive Sciences Complex, the largest neuroscience center in the world.

The MIT News Office had a busy year in 2005, which started with a January blizzard. President Susan Hockfield's inauguration was the big news in May, followed quickly by Commencement on a beautiful June day. Professor Richard R. Schrock was awarded the Nobel Prize in chemistry in October. And just this month, the extraordinary Brain and Cognitive Sciences Complex opened. Although there were too many stories to sum up here, enjoy this glimpse of 2005 as seen through the lens of a camera.

Please note: This is the last Tech Talk issue of this year. Tech Talk will resume publication on Jan. 25. But you don't have to miss any MIT news. The MIT News Office web site continually publishes new stories at web.mit.edu/newsoffice/ .

PHOTO / **ASSOCIATED PRESS**

OCTOBER: Professor Richard R. Schrock learned he'd won the Nobel Prize in chemistry on Oct. 5. He received the prize, above, on Dec. 10 in Sweden.

PHOTO / **DONNA COVENEY**

MAY: MIT marked the inauguration of President Susan Hockfield with a weeklong celebration. On May 6, the big day, she shared a moment with her husband, Dr. Thomas Byrne, and their daughter, Elizabeth Byrne.

PHOTO / **DONNA COVENEY**

SEPTEMBER: Construction began this summer on a major expansion of the main group, creating an 'infill' building in the Building 6 courtyard. Obvious to anyone who walks the Infinite Corridor, work on this project (photographed in September) is still under way.

PHOTO / **DAN BERSAK, MIT GRAD STUDENT**

AUGUST: Members of the MIT Campus Police Honor Guard took the field at Fenway Park on Aug. 30 to present the flag before a game.

PHOTO / **DONNA COVENEY**

JANUARY: Thirty inches of snow fell the weekend of Jan. 22, keeping MIT Ground Services working around the clock. It was no time for biking.