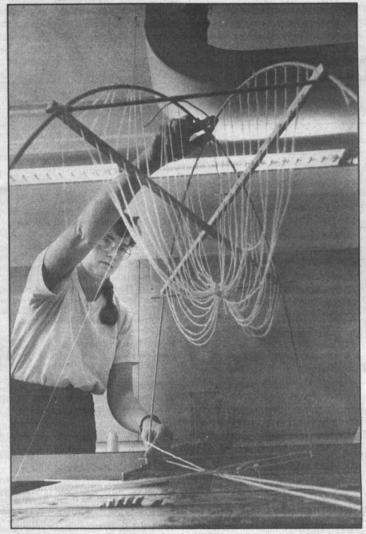


# BCH VOLUME 41 . NUMBER 24

## A L K WEDNESDAY - MARCH 19, 1997

String is in the air



Andrea Whitsell, a senior in architecture, works in a Building 7 studio near the Atrium Cafe on a project for 4.440 (Basic Structural Theory), building a bridge that she hopes will be tops in her class for lightness and weight-bearing capacity.

Photo by Donna Coveney

## ROTC aid policy established

## Move guards against loss due to sexual orientation

■ By Robert J. Sales News Office

MIT will guarantee an equal financial aid package to its ROTC students whose federal scholarships are terminated because of their sexual orientation.

The policy, effective immediately, is the first action taken by an ROTC Implementation Team appointed by President Charles M. Vest to develop strategies regarding the modified ROTC program called for in a faculty resolution last April.

None of the 102 MIT students enrolled in ROTC has had a scholarship terminated since the Department of Defense's "don't ask, don't tell, don't pursue" policy regarding sexual orientation was enacted in 1993. If this occurs in the future, a support structure has been established in the Office for Undergraduate Education and Student Affairs.

Under the new policy, any MIT ROTC student whose federal scholarship is terminated may apply for financial aid to continue his or her education and is encouraged to do so to establish a level of eligibility. Additional supplemental loans will be available for ROTC students who lose their federal package because of their sexual orientation.

The policy has been approved by the Committee on Undergraduate Admissions and Financial Aid (CUAFA).

MIT will forgive supplemental loans to students who perform full-time public service after leaving the Institute, including VISTA or the Peace Corps service, or teaching in grades K-12. The director of the Office of Student Financial Aid and the chair of CUAFA Aid will rule on the acceptability of proposed service.

Two terms of MIT tuition will be forgiven for each year of public service. Students who prefer not to perform public service will be responsible for repaying the loan plus interest. ROTC-commissioned officers are required to serve four years on active duty or eight years in the active reserves.

The Implementation Team, which has been meeting since September, is chaired by Associate Provost Phillip L. Clay. Other members are Dean for Student Life Margaret R. Bates, Government Relations Assistant Sarah E. Gallop, Professor of Ocean Engineering J. Kim Vandiver, who is also (continued on page 5)

## Young to head space research effort

■ By Sarah Wright News Office

L aurence R. Young, Apollo Program Professor of Astronautics, has been named director of the National Space Biomedical Research Institute (NSBRI), a new NASA-sponsored research institute, the space agency announced last week.

"It's a very exciting job. As director, I will have some say in determining the shape of our future space program and in how we pick people to go into space," said Professor Young. He will

assume his new responsibilities this spring and will divide his time between Houston and MIT thereafter.

The NSBRI will be the focal point of NASA-sponsored space biomedical research. Its twofold mission is to address the medical obstacles to safe, productive and long-term human presence in space, and to apply the knowledge gained from space research to human medical problems.

Professor Young was a principal investigator on four space shuttle missions and an alternate NASA payload specialist for the Space Life Sciences 2 Mission in October 1993. He has been internationally recognized for his re-

search on how the balance mechanism in the inner ear is linked to "space sickness." He is director of the Magazchusetts Space Grant Consortium and cofounder, with Y.T. Li, of the Man-Vehicle Labora-

Young

tory at MIT.

Describing the local roots of the NSBRI, Professor Young emphasized, "It is an HST [Harvard-MIT Health Sciences and Technology] group activity. About 40 people from the Harvard, MIT and Boston University communities are involved."

(continued on page 8)

## Merck, MIT announce collaboration

MIT and Merck & Co., Inc., have announced a long-term research and education collaboration to pursue joint initiatives in both MIT science and engineering.

'This Merck-MIT partnership is a pacesetter. America must enhance its ability to innovate by increasing substantive interaction between faculty and students in universities and their research counterparts in industry," said MIT President Charles M. Vest. "We each have different roles to play, but synergies must be developed. Merck has exhibited real leadership by investing in the future through this support and interaction with MIT science and the future scientists and biotechnical engineers among our graduate students."

"First and foremost, our growth depends on breakthrough discoveries fueled by scientific excellence and strong investments in research," said Edward M. Scolnick, M.D., executive vice president for science and technology and president of Merck Research Laboratories.

Under terms of the agreement, Merck will have certain patent and technology license rights to developments resulting from the Merck-supported collaborations in exchange for funding up to \$15 (continued on page 5)

## Award-winning director offers dramatic advice

■ By Sarah Wright News Office

A ctor-director Kenny Leon's first guest appearance at MIT was in The Director's Craft, a class taught by Professor Janet Sonenberg. Dressed in freshly ironed blue work shirt and jeans, he strode into Kresge rehearsal room B, his charismatic presence transforming the ordinary basement space into a waiting stage.

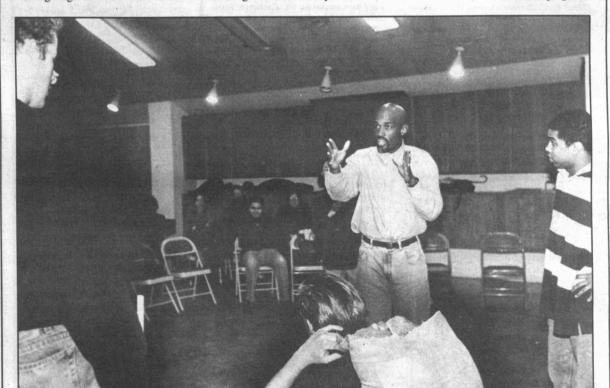
Mr. Leon, winner of MIT's Eugene McDermott Award for 1996, visited the Institute last week to complete a high-speed, high-intensity artist-inresidence commitment here.

The Eugene McDermott Award is presented annually by the Council for the Arts at MIT to an artist not affiliated with MIT whose work, while hailed in its particular discipline, is unfamiliar to the general public. The recipient must agree to a residency at MIT. Pre-

vious McDermott Award winners have included photographer Jeff Wall, musician Tan Dun and conceptual artist Agnes Denes.

Mr. Leon, artistic director of The Alliance Theater in Atlanta, Georgia, is in Boston to direct the Huntington Theater's production of *Blues for an Alabama Sky*.

His advice to Professor Sonenberg's class boiled down to the same advice (continued on page 7)



Artist-in-residence Kenny Leon suggests different blocking and methods for communicating action to members of an MIT directing class. Left to right: Richard Thompkins, a junior in economics; Jeremy Butter (crouching), a junior in biology and theater; Mr. Leon; and Rob Marcato, a senior in computer science.

Photo by Donna Coveney

## InBrief

#### **FACULTY MEETING**

A regular meeting of the MIT faculty will be held today at 3:15pm in Huntington Hall (Rm 10-250). Agenda items are:

- Proposal for a revised undergraduate communication requirement, by Professors Hodges and Bacow.
- Proposal for a Masters of Engineering in Logistics, by Professor Sheffi.
- Update on the reengineering of Student Services, by Dean Williams and Professor Schlecht.

Agendas and minutes of faculty meeings can be found on the Web at <a href="http://nimrod.mit.edu/depts/archives/facmin/">http://nimrod.mit.edu/depts/archives/facmin/</a>>.

#### **CREDIT UNION DANCE**

The MIT Employees' Federal Credit Union will hold its 57th annual dinner dance on Saturday, April 12 at Lantana's in Randolph. Tickets, which are \$10 per person (limit two tickets per member), will be on sale Friday, March 21 at the following locations:

Campus—noon-2pm, Credit Union, Rm E19-422

Draper—noon-2pm, Human Resource Office, Rm 2112

Lincoln Lab—11:30am-12:30pm, Building A, Rm 220

### Student Notices

- \*\*-Open to MIT community only \*\*\*-Open to members only

#### **■** ANNOUNCEMENTS

Physical Education Lottery\*\*—All students faculty, staff and MIT affiliates are invited to enroll in Physical Education classes for the second quarter. Enrollment takes place through the P.E. Lottery on Athena from 8am on March 17 until noon on March 31. From any Athena workstation or from any dialup or Telnet connection to Athena, type "add pelott" and then "xphedu &" to execute the Selection System (note: if you are dialing up use "phedu" instead). Non-Athena users may enter the lottery with assistance of the PE Office, Rm W32-125. Results will be available to participants on April 1, by using the same two commands as above "add pelott" and "xphedu &" (or "phedu" from dialup). Late registration, based on availability, will be conducted beginning April 1 in the PE Office. Classes begin Wednesday, April 2. All participants, with the exception of undergraduates taking classes for credit, must purchase the MIT Athletic Card.

Career Services and Preprofessional Advis-ing Recruitment Presentations\*\*—Mar 19: Seagate Technology, 6pm, Rm 4-159. Sony, 6:30pm, Rm 8-105. American International Group, 7pm, Rm 4-145. Mar 20: Pacesetter, 6pm, Rm 4-159. National Semiconductor, 7pm, Rm 4-145. Mar 31: MCI, 7pm, Rm 4-159. Apr 1: New Vision Systems, 4:30pm, Rm 4-145. Vectis, 6:30pm. Rm 4-149. Longview Group, 7pm, Rm 4-153.

How to Get a Job in Academia \*\* -- Mar 20: A discussion from the perspective of senior and recently appointed faculty. Speakers: Dr. G. McRae, Dept. of Chem. E.; Dr. J. Stubbe, Dept. Chem. and Bio.; Dr. S. Sanders, Dept. Bio.; and Dr. K. Singh, Dept. of Physics (Wellesley College). Sponsored by the MIT Association for Postdoctoral Women, 2:30-4pm, Rm 10-250. Refreshments. More info: Michelle x3-6315 or Helen

Tax Workshop for International Students\*\*-Mar 24: Will address tax regulations and tax forms pertinent to all international students. Sponsored by the International Students Office, 2-4pm, Rm 9-150. Students or dependents who are not slightly for a Capital Security number should apply for Taxpayer ID Number, see <a href="http://web.mit.edu/iso/">http://web.mit.edu/iso/</a> www/taxpayer.html>.

Libraries Spring Vacation Hours-Mar 21-30: All libraries follow regular schedule with the exception of: Aero & Astro, Lindgren, Rotch Visual Collection, Schering-Plough Library: Mon-Fri 9-5. Sat-Sun closed. Lewis Music Library: Mon-Fri 9-5. Sat Mar 22 - Sun Mar 23 closed. Sat Mar 29 11-5. Sun Mar 30 1-10. Reserve Book Room: Mon-Fri 9-5. Sat 1-5. Sun Mar 23 1-5. Sun Mar 30 1-11...

#### **■ RELIGIOUS ACTIVITIES**

The Chapel is open for private meditation 7am-11pm daily. Regular Chapel services are:

Baptist Campus Ministry\*\*—Weekly events: Tuesday night dinner at 5:15pm; Tuesday night bible study, 6pm; Monday graduate discussion, noon. Meets in Bldg W11.

Campus Crusade for Christ\*\*-Weekly meeting on Wednesdays, 8pm, PDR 1 & 2, 3rd fl Student Center. Daily prayer, Rm W11-080 (CFL), 8am. More info: x2-1781 or <absree@mit.edu>.

Tech Catholic Community\*\*—Weekday Mass Tues & Thurs 5:05pm, Friday 12:05pm, Saturday 5pm, Sunday 9:30am & 5pm. Call x3-2981.

Christian Science Organization\*\*—Thursdays at 7pm. Call x3-8797 or <norford@eagle.mit.edu>

Communitas-Life Together\*\*-Protestant Worship Sunday at 11am. Sponsored by: American Baptist Church, United Church of Christ.

arrested for trespassing.

Mar 8: Student Ctr, leather jacket stolen, \$120.

United Methodist Church, Presbyterian Church (USA). Chaplain John Wuestneck, x2-1780 or <chaplain@mit.edu>

Lutheran-Episcopal Ministry at MIT\*-Regular Wednesday worship, 5:10pm, fol-lowed by supper in the Bldg W11 dining room. Bible Studies, Tuesdays 5:30-6:30pm, Bldg W11. More info: x3-0108.

Meditation and Discourse on the Bhagavad Gita\*-With Swami Sarvagatananda, MIT Chaplain and Head, Ramakrishna Vedanta Society of Boston. Every Friday, 5:15-6:30pm, MIT Chapel. Sponsored by the MIT Vedanta Society. More info: 661-2011 or <mehta@jimmy.harvard.edu>

MIT Orthodox Christian Fellowship\*\*-Wednesdays at 5:30pm in Student Ctr DR 1 for dinner followed by Chapel Vespers. John Kymissis, Dorm x5-7649 or Costa Sapuntzakis, Dorm x5-7683.

Other religious meetings:

Baptist Student Fellowship\*-Weekly meetings on Tuesdays, include dinner followed by Bible Study. 5:30-7pm, Bldg W11, small dining room. Sponsored by Baptist Campus Ministry. More info: x3-2328.

Graduate Christian Fellowship\*\*—Weekly meetings in Student Ctr, PDR 1&2, Fridays at 5:30pm. Also weekly Bible studies and Responsible Technology discussion group. Andrew Crabtree 868-0488 or <crabtree@mit.edu>.

Hillel\*-More info: x3-2982.

Lincoln Laboratory Noon Bible Studies\*-Wednesdays at noon, South Lab S2-410. Annie Lescard, Linc x2899.

MIT Muslim Students Association\*-5 daily prayers, Bldg W11; also Friday congrega tion 1:10-1:45pm, Rm W11-110. Info: x8-

#### OPPORTUNITIES

The Peter J. Eloranta Summer Undergraduate Research Fellowships. Several \$5,000 stipends are available to MIT undergradu ates (including June 1997 graduates) planning to spend the summer on an independent ning to spend the summer on an independent investigation or branching out in a new direction inspired by some previous work. The planned work should be student-originated or student-directed. It may be in any field. Call Undergraduate Academic Affairs at x3-7909 for details. Deadline for proposals: April 1.

The Ilona Karmel Writing Prizes. Cash prizes awarded in categories of fiction, short story, poetry, drama, essay, scientific and engineering writing, science writing for the public, and women's and gender studies. Sponsored by the Program in Writing and Humanistic Studies at MIT. Guidelines and cover sheets available in Rm 14E-303 or at <a href="http://web.mit.edu/humanistic/www/>.">. Deadline: April 7.

I. Austin Kelly III Prize Competition 1996-1997. Two prizes of \$600 each for scholarly or critical essays in the following fields: Anthropology, archaeology, economics, film & media studies, history, history of science & technology, linguistics, literature, music, philosophy, politics, theater, visual arts, women's studies. Rules and guidelines are available in the Music Office, Rm 14N-207 or by contacting Mary Cabral, x3-5623. Open to MIT undergraduates. Deadline: April 10.

Alfred Keil Fellowship for the Wiser Uses of Science and Technology. This award, established by the School of Engineering, covers full tuition for an academic year and is based on academic excellence, the relevance of a student's intended work to the spirit of the award, and creativity construed as the possibility of enabling the student to do something that might not otherwise be possible. Application should be limited to two pages explaining the student's proposed research and how it will contribute to the wiser uses of science and technology. The names of two references are required, including at least one MIT faculty member. Applications should be submitted to Prof. Daniel Roos, Rm E40-209. Deadline: April 15.

#### **STUDENT JOBS**

There are more job listings available at the Stu dent Employment Office, Rm 5-119, or on the Web at < http://web.mit.edu/seo/>(student access only).

Off-Campus, Programming. Small software startup is looking for help with compiler language translation. Specifics require the ability to parse ANSI proposed standard and produce explicit and implied requirements (typedefs, class declaration etc.) in the code Requirements: strong C++ skills, compiler/ language translational background, ability to work independently, ability to write well docu-mented and structural code and a sense of humor. Work can be performed at home during non-traditional work hours. Summer work is possible as well. Call Bob Hablutzel at (603) 431-0466 or e-mail <bobh@hablutzel.com>

On-Campus, Non-Technical. Light office work and occasional campus deliveries, support-ing the staff of the Task Force on Student Life and Learning. Flexible hours available: 8-10/wk (1 to 2 hr/day preferred) and student must be available between 1:30 and 2pm on Mondays. Contact Traci Considine at 523-6399 or <traci@mit.edu>.

Off-Campus, Non-Technical. Tutors in math, science, and civil engineering at the undergraduate and graduate levels needed. E-mail <acadquest@aol.com>.

For students with a Federal Work Study compo nent in their aid package (see < http://tute.mit.edu/ seo/wwwcl/sersum.html> or contact Student Employment Office for full details).

Youth on Board. Work with the membership coordinator and youth staff to develop mate rials to promote Youth on Board's individual and organizational membership program, assist with the development of a recruitment plan, assist with database entry of new members, assist with youth staff initiated newsletter, disseminate information, and assist with the development of member-ship materials. Minimum requirements: familiar with Macintosh computers including Microsoft Word 5.0 (some graphics programs such as PageMaker desired), planning, writing, organizing and oral skills, ability to communicate effectively and work with a team. Send cover letter and resume to Karen Young at fax 623-4359.

Curriculum Development. The position involves the development of activities for a high school science curriculum. The job entail performing experiments to determine accuracy and feasibility in the classroom, along with researching new ideas and the necessary materials for experiments. The person for this job needs to be reliable and organized, flexible, and able to work independently. A laboratory science background in chemistry or biology is a must. Work will be done at Global Lab Instrumentation. Call Betsy Feldman at 547-0430 ext. 426 or email <Betsy\_Feldman@terc.edu>.

Assistant Site Coordinator, BELL Foundation. Assist in developing and implementing monthly lesson plans, learning curriculums, tutoring strategies, meet monthly with teachers, obtain supplies/learning materials, plan and organize community services/ cultural activities, and submit written monthly reports. Qualifications: dependable, self-motivated, cooperative, comfortably interact with others, work flexible hours, and have passion for the education of black children and development of the black com-munity. Administrative and classroom experience preferred. Please fax resume with cover letter to Shonnese Guion at 349-3545.

#### **■ VOLUNTEERS**

The MIT Public Service Center (Room W20-311. x3-0742) has compiled the following volunteer opportunities.

Little Brothers: Friends of the Elderly needs volunteers to bring happiness conversation, and friendship to lonely elderly on Easter Sunday, March 30, 1997. Pick up meals and flowers between 10am and 1pm, then deliver them to isolated elderly people throughout Boston. Contact Tim Schaub at 451-2404.

Mass. Public Interest Research Group. Work with program department to produce reports and educate the public about environmental and consumer issues. Days available for two or more hours per week. Contact Sheryl Barnes at 292-4800.

Boston Children's Service Association needs tutors to assist a developmentally disabled child and his/her family in special skills that help the child's development, e.g., playing a musical instrument. Contact Julie Kennedy 267-3700, ext. 336.

Asian American Service Association needs tutors for elders in English as a second language and Cantonese-speaking volunteers, weekday mornings at our Wollaston Senior Center (Quincy - T-accessible). Call Brad Delano at 471-9354.

## Committee encourages input on animal care issues

Professor David Litster, vice president for research and dean for graduate education, and the chairman of the Committee on Animal Care are once again soliciting any information which would aid MIT's effort to maintain the humane care of animals used in research.

MIT's Committee on Animal Care (CAC) was established to ensure that all MIT researchers working with animals comply with federal, state, local and institutional regulations on animal care. To that end, the CAC inspects animals, animal facilities and laboratories, and reviews all research and teaching exercises which involve animals before experiments are performed.

If you have information about inadequate animal care or treatment or any information that would help the CAC fulfill its responsibilities, contact the CAC at x3-9436 or Professor Litster at x3-6801.

All concerns about animal care will be handled confidentially and will be investigated by the CAC. The CAC will report its findings to anyone who has such concerns as well as to the vice president for research and dean for graduate education.

#### **■ UROP**

UROP Summer Studies Program, MIT Laboratory for Computer Science\*\*-Apr 3: Informational meeting, 4pm, Rm NE43-518. The summer program is intended for undergraduate students who are interested in participating in research projects in the Laboratory for Computer Science. Although no prior experience is necessary, pay under this UROP Summer Studies Program is commensurate with experience, and the program is open to all undergraduates not currently or formally associated with the Laboratory. Students are expected to continue work in the fall semester (either for credit or for pay). We hope to identify creative and energetic undergraduate students interested in computer science and to encourage their development. If you are unable to attend but are still interested in the program, send email to <denise@hq.lcs.mit.edu>.

#### **CABLE**

For more information about cable at MIT, call Randy Winchester at x3-7431, Rm 9-050, e-mail: <randy@mit.edu>. World Wide Web; <http:// web.mit.edu/org/m/mitcable/www/home.html>.

Mar 17: Channel 8: 4-5:30pm-Live coverage of the MIT EECS Colloquium, "MIT Council on Educational Technology: Progress Report," Richard C. Larson, MIT, EECS and Director, CAES. Channel 9: 5:30pm 2am-MIT EECS Colloquium (repeat).

Mar 18: Channel 8: 4-5:30pm-Live coverage of the MTL VLSI Seminar: Khalil Najafi, University of Michigan. Channel 9: 5:30pm-2am—MTL VLSI Seminar (repeat).

Mar 19: Channel 8: 11am-12:30pm-Live cov-

erage of the EECS/RLE Seminar Series on Optics and Quantum Electronics: "Field-Emission Flat Panel Displays" Tayo Akinwande, MIT. Channel 9: 5pm-2am-EECS/RLE Seminar Series on Optics and Quantum Electronics (repeat).

Mar 21: Channel 10: 4pm—Physics 8.01 Review Assignment #7 with Prof. Walter Lewin. This program will repeat every hour on the hour until 4pm, 4/2.

Mar 27: Channel 8: 3:30-5pm-Live coverage of the Laboratory for Computer Science Distinguished Lecture Series: "Adventures in Interesting Times," Dr. Anita Jones Director, Defense Research and Engineering, Department of Defense. Channel 9: 5pm-2am-Laboratory for Computer Science Distinguished Lecture Series (repeat).

Mar 31: Channel 8: 4-5:30pm—Live coverage of the MIT EECS Colloquium. "Efficient Precise Computation With Noisy Components: Extrapolating from an Electronic Cochlea to the Brain," Rahul Sarpeshkar, Caltech. Channel 9: 5:30pm-2am—MIT EECS Colloquium (repeat).

Apr 1: Channel 8: 4-5:30pm—Live coverage of the MTL VLSI Seminar: Mario Molina, MIT. Channel 9: 5:30pm-2am-MTL VLSI Seminar (repeat).

Apr 2: Channel 8: 11am-12:30pm—Live coverage of the EECS/RLE Seminar Series on Optics and Quantum Electronics: "Multipla Quantum-Well Devices for Photorefractive Applications," Elsa Garmire, Dartmouth College. Channel 9: 5pm-2am—EECS/RLE Seminar Series on Optics and Quantum Electronics (repeat). Channel 10: 4pm-Physics 8.01 Review Assignment #8 with Prof. Walter Lewin. This program will repeat every hour on the hour until 4pm, 4/9.

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#### MIT TECH TALK (USPS 002157)

March 19, 1997

Publisher KENNETH D. CAMPBELL

Editor ALICE C. WAUGH

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Recycled Paper

#### suspicious activity; Sloan lot, 2 Hondas broken into; Student Ctr, malicious damage. Mar 10: Bldg 8, male arrested for trespassing; Bldg WW15, computer stolen, \$2,000; Bldg 20, laptop stolen, \$3,950; WILG, graffiti; Bldg 14, malicious damage; Bldg E17,

backpack stolen, \$50; Rockwell Cage, suspicious activity.

Mar 11: Senior Hse, larceny of credit cards; Bldg 66, harassment; Bldg 14, cash and cell phone stolen, \$100; Bldg 7, suspicious person.

Crimewatch

Mar 7: Westgate, bike parts stolen, \$100; Bldg E25, backpack stolen, \$400; Student Ctr, male

Mar 9: Westgate, suspicious motor vehicle; East Campus, noise complaint; Bldg 8,

The following incidents were reported to the MIT Campus Police between Mar 7-12:

Mar 12: Bldg 5, ring and change purse stolen, \$1,150; Bldg 20, VCR stolen, \$200; Bldg 68, CDs stolen, \$180; Bldg E25, male arrested for trespassing; West Garage, suspicious activity; Johnson Athletic Ctr, \$295 cash stolen from wallets.

MIT TECH TALK = 3 MARCH 19, 1997

## Mann looks back on engineering design career at MIT

By Sarah Wright **News Office** 

Professor Emeritus Robert W. Mann led his audience on a good-natured, whirlwind tour of 50 years of design and engineering work at a Distinguished Alumnus Lecture on March 12.

Professor Mann used slides, notes and spontaneous comments about life at MIT in his lecture, "A Half-Century Portfolio on Engineering Design." In just under an hour, he divided his impressive career into three basic segments: the missiles, the muscles and the blind.

Dr. Mann is Whitaker Professor of Biomedical Engineering Emeritus and a senior lecturer in the Department of Mechanical Engineering. He retired as professor and director of the Newman Laboratory for Biomechanics and Human Rehabilitation in 1992.

Introducing himself to the group of about 60, which included former colleagues and students as well as current students, Professor Mann touched on his early education from a carpenter grandfather and vocational school in Brooklyn, NY. He repeatedly spoke of his pride in the many students who produced theses while under his tutelage. "MIT students have made it possible for me to stand before you," he said.

Professor Mann came to MIT as a student on the GI Bill in 1947. Working in the Dynamic Analysis and Control Laboratory, he conducted research on internal power systems, eventually leading to the development of Sparrow I and III and Hawk missiles.

In the 1950s, he concentrated on the main problems with design itself-"all that drawing and erasing; all that time." He soon combined his drafting and design experience with his computer knowledge to inaugurate the Computer-Aided Design Project in 1959. A slide of a programmer's page of cramped, handwritten notes demonstrated life in the "very lugubrious" FORTRAN era.

Professor Mann discussed his work in the 1960s on developing technology to help people with disabilities, referring to his continuity of interest from "powering rockets to powering people." In 1964, he inaugurated the Sensory Aids Evaluation and Development Project inspired by John Kenneth Dupress, who had lost his sight and one arm in the Battle of the Bulge. English-to-Braille computer translation systems and electronic travel aids for blind persons resulted from that project.

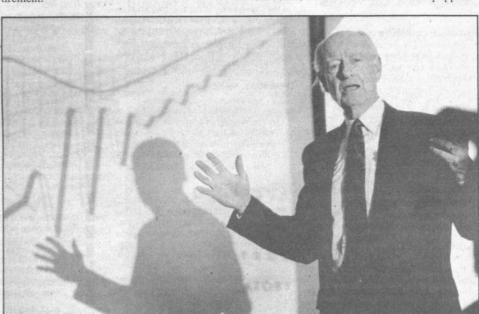
"Then we asked, 'What torque or velocity does it take to raise a tankard to the lips?" Thus did he lightly refer to the work for which he may be best known outside MIT-his collaboration with Liberty Mutual in developing the "Boston Arm," the first biomedical prosthetic device. "You don't have to be a rocket scientist to see even an amputated arm still has muscle [above the lost limb], which the brain still directs," the former rocket scientist observed.

Other slides showed the Boston Arm, the Utah Elbow and the MIT Knee, developed by Pappalardo Professor of Mechanical Engineering Woodie C. Flowers. Professor Flowers, shown modeling the MIT Knee as a student, was seated near the front of the room.

Professor Mann's rehabilitation research and recent musculoskeletal studies, together with related computer-assisted surgery, were based in the Newman Laboratory, which he founded in 1975 and directed, along with the Harvard-MIT Rehabilitation Engineering Center, until his re-

He illustrated developments in now-common hip replacement surgery by showing images of cartilage in various states, hips and hip sockets, and the sizing device for the hip-ball he designed so surgeons would no longer need to "kinda put 'em in and squish 'em around" to get the right fit.

'Orthopedic surgery is just cabinet-making with bones, isn't it?" Professor Mann quipped.



Dr. Robert Mann, senior lecturer and professor emeritus in mechanical engineering, discusses some of his design accomplishments at MIT. Photo by Donna Coveney

## Experts discuss drop in researchers at teaching hospitals

espite declining numbers of PhD and MD investigators at hospitals and stagnant federal funding, experts are cautiously optimistic about the future of innovative research at teaching

There is a need for people who understand both the research and clinical worlds, and that will continue through the year 2010," said Dr. John A. Parrish, MD, a professor in the Harvard-MIT Division of Health Sciences and Technology (HST) and professor and chairman of the dermatology department at Harvard Medical School. "Innovation will be a necessary survival criteria for academic health care centers.'

Dr. Parrish spoke at a March 12 panel discussion entitled "The Roles of MD and PhD Investigators in the Teaching Hospital of 2010." The panel was part of the 1997 HST Forum of the Harvard-MIT Division of Health Sciences and Technology. The Harvard/MIT program has about 300 graduate students and about 150 core and affiliated faculty members.

The other two panelists were Dr. Richard Johns, professor of medicine at Johns Hopkins University and distinguished service professor of biomedical engineering, and Dr. Arnold Relman, editor emeritus of the New England Journal of Medicine and professor of medicine and social medicine emeritus at the Harvard Medical

The number of research MDs in research-intensive departments of hospitals, such as the department of medicine, has declined from 3,000 in 1986 to 2,000 in 1993, according to Dr. Joseph Bonventre, associate director of HST and the panel's moderator.

"There has been a significant dropoff in research MDs in departments of medicine, and a parallel trend can be drawn with research PhDs in hospitals," he said. "The question is, will the students in our programs in 2010 find positions in hospital medical departments?"

Dr. Parrish attributed the decline in the

number of hospital-based researchers to two factors. It is harder to do science because research procedures have become more rigorous. And second, it is harder for people to work in both the research and clinical worlds, he said.

Dr. Parrish, who also is director of the Massachusetts General Hospital-Harvard Cutaneous Biology Research Center, said that when the center first started about eight years ago, six of the seven principal researchers were MDs. But years later, when the lab had grown to 10 researchers, only two were MDs.

'They couldn't keep up with their clinical duties and do the work for peer-reviewed funding," he said. "We miss the MDs. Technology must be driven by the people who understand the problems.'

#### **DEVELOPING FIELDS**

Dr. Parrish sees new opportunities for hospital-based biological researchers emerging, especially in the areas of minimally invasive techniques and lower cost technologies.

"High technology (to date) has enabled us to take better care of fewer people for more money. So there's something we're not doing right," he said. "People who understand technology and medicine, like those in HST, will guide health care to make it less expensive and available to far more people.

Dr. Relman agreed, adding that

clinical health care became so expensive that funds for research simply ran dry. "Things are going to get worse before they get better because of the lack of funding," he said.

Dr. Johns said industry will not be able to make up for the shortfall in federal funding. "It's not doom and gloom, but it will be increasingly competitive to get funding."

#### Notes from the Lab

#### SENIORS CREATE ELECTRONIC NEWSPAPER

The Silver Stringers are a group of about 20 senior citizens from Melrose who are defying stereotypes about difficulties that people in their 60s, 70s or even 80s have in going online.

These seniors have joined forces with researchers at the Media Laboratory's News in the Future (NIF) consortium to enhance the use of the Internet for individual communities around the world. The result has been the creation of an electronic newspaper, The Melrose Mirror.

"One of the Media Lab's goals is to facilitate the use of computers and the Internet at the community level, creating a community within a community," said Jack Driscoll, editor-in-residence at the Media Lab and the Silver Stringers' advisor. "While watching the group's success and analyzing its stumbling blocks, we are attempting to develop new software for online community newsletters.'

Mr. Driscoll, Walter Bender (director of the NIF consortium), graduate student Marko Turpeinen and administrative assistant Rebecca Prendergast have been working with the Stringers on the software. They are also adapting several new ideas in applications hardware. Visit The Melrose Mirror at <a href="http://silverstringer.media.mit.edu/ss/html">http://silverstringer.media.mit.edu/ss/html</a>

(Source: Frames, a publication of the MIT Media Laboratory.)

#### **DETECTING CRACKS IN CONCRETE STRUCTURES**

MIT researchers and colleagues are designing new optical fiber sensors to detect cracks in concrete structures from bridges to the protective walls

In a bridge, the fibers would be embedded in a plastic sheath and glued securely to the bottom of the bridge deck. When a crack forms across a fiber, the fiber bends, causing a sudden loss in signal as some energy escapes from

To detect the cracks, the back-scattered signal is monitored. Knowing the speed of light inside the fiber, we can calculate where the signal drop occurred, and from the intensity of the drop, we should be able to tell how much a crack has opened up," said Professor Christopher Leung of the Department of Civil and Environmental Engineering. Professor Leung's group and colleagues at Brown University are developing a model to describe signal loss vs. crack opening.

Another potential application is to guard against leaks around hazardous-waste dumps. Sometimes wastes are packed into containers that gradually deteriorate and allow contaminants to percolate through allegedly protective concrete barriers surrounding the site. A long-lived, sturdy sensor inserted into the dump's protective wall will give the location of any crack that forms in that wall, so the opening can be regrouted. The work is funded by the DOE through the Idaho National Engineering Lab/University Research Consortium Program.

(Source: Civil and Environmental Engineering at MIT)

surrounding hazardous-waste dumps.

This column features summaries of MIT research drawn from several sources. If you have an item to suggest, send it to Elizabeth Thomson, News Office assistant director for science and engineering news, Rm 5-111, or <thomson@mit.edu>

## Levy headlines seminar on education

Professor Frank Levy, co-author of a book entitled Teaching the New Basic Skills, will discuss the need to apply real-world business standards and skills to elementary and secondary education at an MIT seminar on Monday, March 31 from 4:30-6pm in Rm 6-120.

Dr. Levy, the Daniel Rose Profesr of Urban Economics is the featured speaker in the fifth Forum on Public Education sponsored by the Council on Primary and Secondary Education (CPSE) and the Museum of Science.

The book, written with Harvard University Professor Richard Murnane, describes the difficulty parents currently have in assessing their children's schools. The authors make the point that while most schools are slightly better than they were 15 years ago, job requirements have increased much faster than schools have improved.

day, March 28. Anyone who wants

To deal with today's job market, Professors Levy and Murnane propose that schools prepare students for the workplace by teaching them the value of initiative, flexibility and teamwork as well as math, reading and writing. To accomplish this, the authors suggest that educators adopt five principles that will assure dents have an understanding of the problems to be addressed, incentives and opportunities to participate in formulating solutions, first-class training, regular feedback, and perseverance and encouragement to learn from

'Use of the five management principles can help schools improve what they do to enable all students to become responsible adults who will keep the economy strong and the democracy vibrant," Boston Superintendent of Schools Thomas W. Payzant wrote

in a foreword to the book. "What is at stake is the quality of life for everyone." Professor Levy, who holds PhD and

master's degrees in economics from Yale and the SB ('63) in economics from MIT, will speak for about 40 minutes before taking questions from the andience He will! Ronald M. Latanision, professor of materials science and engineering and CPSE chairman.

"The work by Professors Levy and Murnane is at the heart of the national discussion regarding work-based learning," said Professor Latanision. "From our experience with internships and the Practice School, we known that this is effective at the university level. We don't know how this is applicable at the K-12 level. We hope that people in the MIT community will take advantage of the opportunity to hear one of our own speak on this issue."

Speakers at the previous seminars were John Silber, chancellor of Boston University and chairman of the Massachusetts Board of Education; Bruce Alberts, president of the National Academy of Science; Paul Reville of the Massachusetts Business Alliance for Education, and Dr. Payzant.

Robert J. Sales

Supplement Plans ends March 28 The Benefits Office reminds those enrolled in Medicare to change plans or has questions about health insurance coverage supplement plans that the annual open enrollment period ends Fri-

Open enrollment for Medicare

may call x-6151. Questions may also be sent by e-mail to <benefitswww@ mit.edu>.

## Calendar

- \* -Open to public \*\*-Open to MIT community only \*\*\*-Open to members only

#### March 19 - April 6

#### **■ SEMINARS & LECTURES**

#### WEDNESDAY, MARCH 19

- Field-Emission Flat Panel Displays\*-Tayo Akinwande, MIT. EECS/RLE Seminar on Optics and Quantum Electronics, 11am-12pm, Rm 34-401B. More info: x3-8504.
- Culture and Security Studies\*-Hugh Gusterson, MIT. Security Studies Program, CIS, 12-1:30pm, Rm E38-615. Bring a bag lunch; refreshments provided.
- A Finite Element, Semi-Lagrangian, Barotropic Ocean Model\*—Daniel Le Roux, McGill Univ, Quebec. Oceanography Sack Lunch Seminar, 12:10pm, Rm 54-915.
- Borosilicate Glass, Proliferation Resistance, and the Spent Fuel Standard\*-Gary Cerefice, G. Sponsored by the Dept. of Nuclear Engineering, 3pm, Rm NW12-222.
- Exposing the 3-D Mantle Fabric Beneath Ti--Prof. Kevin Furlong, Pennsylvania state Univ. EAPS Dept. Lecture Series, 4pm, Rm 54-915. Refreshments, 3:30pm, Ida Green
- What Will Be\*-Michael Dertouzos, MIT. Part of the "authors@mit" series sponsored by the MIT Press Bookstore and the MIT Humanities and Dewey Libraries, 4pm, Wong Auditorium, Bldg E51 (Tang Center). Cosponsored as part of the Industrial Liaison Program's "Infinite Corridors, Research Perspectives from MIT" video series produced by the Center for Advanced Educational vies. Reception following. More info: x3-5249 or e-mail <authors@mit.edu>.
- Electron Heat Diffusivity in the Sawtoothing Tokamak Core\*-Dr. Giuseppe Cima, Fusion Research center, Univ. of TX at Austin. Plasma Science and Fusion Center Seminar, 4pm, Rm NW17-218.
- Organic Chemicals in the Halls Brook Storage Area\*—Dr. Lukas Wick: Aquatic Sciences Sominats, Parsons Lab., 4:05pm, Rm 48-316. More info: x8-5554 or <janiscka@mit.edu>.
- The Process of Stratification in the Work of Carlo Scarpa\*-Anne-Catrin Schultz, Univ. of Stuttgart, visiting scholar at MIT. History, Theory and Criticism Forum, 5:15pm, Rm 5-216. More info: x8-8438 or x8-8439.

#### THURSDAY, MARCH 20

- A Groebner Basis Framework for Linear and Integer Programming\*—Rekha Thomas, Texas A&M Univ. Operations Research Center Seminar, 4-5pm, Rm E40-298. Refreshments to follow, Rm E40-106. More info: <a href="http://web.mit.edu/orc/www">, <toktay@mit.edu>orx3-7412.
- Fluid Structure Interaction: Mechanics and Control\*—Oliver McGee. Engineering and Environmental Mechanics, 4-5:30pm, Rm 1-350. Refreshments, 3:30pm. More info: x3-7186.
- International Computer Research Net-works\*—Randy Bush, Network Startup Resource Center, Univ. of Oregon; Nazli Choucri, MIT; Lloyd Etheredge, Policy Sciences Center, New Haven, Moderator: Roger Hurwitz, AI Lab, MIT. MIT Communications Forum, 4-6pm, Bartos Theater (Rm E15-070). More info: x3-0008.
- Measuring the Evolution of Galaxies\*-Marijn Franx, Kapteyn Astronomical Institute, Groningen, The Netherlands. Physics 4:15pm, Rm 10-250. Refresh ments, 3:45pm, Rm 26-110.

#### FRIDAY, MARCH 21

- Transportation Planning for the MIT Community\*-Bob Simha, Planning Office, MIT. Center for Transporation Studies Research Seminar, 12-1:30pm, Rm 1-236. Bring your lunch, refreshments provided.
- Solid Modeling\*-Prof. Christoph M. Hoffman, Dept. of Computer Science, Purdue Univ. Mechanical Engineering Seminar, 3pm, Rm 3-270. More info: x2-1490 or x3-1925
- Seismic Anisotropy: Its Estimation and Importance in Petroleum Exploration\*-Prof. Ken Larner, Colorado School of Mines. EAPS Dept. Lecture Series, 4pm, Rm 54-915. Refreshments, 3:30pm, Ida Green

#### **TUESDAY, MARCH 25**

Mathematical Modernism and Mathematical Technologies\*-Hebert Mehrtens, Technische Universitat, Braunschweig Germany. Dibner Institute Lecture, 12 noon, Rm E56-100. If you plan to attend call x3-6989 or e-mail < dibner@mit.edu>.

#### WEDNESDAY, MARCH 26

- On the Relationship Between Transformation and Subduction of Water Masses\*—Daniel Jamous, MIT. Oceanography Sack Lunch Seminar, 12:10pm, Rm 54-915.
- On the Universality of the Electron Mobility and Degradation of the Total Gate Capacitance in Scaled Silicon MOSFETs\*-Dr. Dragica Vasileska, Arizona State Univ. Special EECS Seminar, 4pm, Rm 34-401A. Refreshments, 3:45pm.

#### THURSDAY, MARCH 27

Adventures in Interesting Times\*-Dr. Anita Jones, Director, Defense Research and Engineering, Dept. of Defense. Laboratory for Computer Science Distinguished Lecture Series, 3:30pm, Rm 34-101. Refreshments,

#### MONDAY, MARCH 31

- Job Opportunities in the Nuclear Industry\*-Dr. Len Pasquini, Rocky Flats Environmental Technology Site. American Nuclear Society/Nuclear Engineering Dept. Seminar, 3:30pm, Rm NW12-222. Refreshments, 3pm.
- The Sounds of Plasma Physics\*-Andor Carius, artist-experimenter. Program in Science, Technology, and Society Colloquia. 4pm, Rm E51-095. More info: x3-4062.
- Efficient Precise Computation With Noisy Components: Extrapolating from an Electronic Cochlea to the Brain\*—Rahul Sarpeshkar, Caltech. MIT-EECS Collquium, 4pm, Rm 34-101.
- In-well Vapor Stripping for VOC Removal from Groundwater: Lab, Field and Modeling Results\*-Prof. Steven Gorelick, Dept. of Geological & Environ. Sci., Stanford Univ. Civil & Environmental Engineering Water Resources & Environmental Engineering, 4:05pm, Rm 48-316. More info: x8-5554 or <janiscka@mit.edu>.
- Adaptive State Selection, the Renormalization Group, and the Quantum Many-Body Problem\*-Dr. Philippe Monthoux, National High Magnetic Field Laboratory, Florida State Univ. Applied Math Colloquium 4:15pm Rm 2-105 Morainfo <a href="http://web.mit.edu/mathdept/www/">http://web.mit.edu/mathdept/www/</a> AppliedMathColloq/spring97> or x3-3661.

#### TUESDAY, APRIL 1

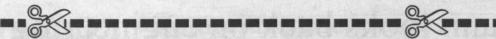
- Global Effects of Emissions of Stable Halogenated Organic Compounds\*-Mario J. Molina, MIT. MTL VLSI Seminar Series, 4pm, Rm 34-101. Refreshments, 3:30pm.
- Fusion of the Developmental and Environmental Approaches\*—Joseph Brown, EDAW, San Francisco. Architecture Lecture, 6:30pm, Rm 10-250. More info: x3-7791.

#### **WEDNESDAY, APRIL 2**

- Multiple-Quantum-Well Devices for Photorefractive Applications\*-Elsa Garmire, Dartmouth College. EECS/RLE Seminar Series on Optics and Quantum Electronics, 11am-12pm, Rm 34-401B. More info: x3-8504.
- The UN and the Use of Coercive Measures\*-Chantal de Jong Oudraat, CSIA, Kennedy School, Harvard Univ. Security Studies Program, CIS, 12-1:30pm, Rm E38-615. Bring a bag lunch; refreshments provided.
- Cumulative Effects of Human Activity on the Aquatic Systems of National Parks in the Canadian Rocky Mountains\*-Dr. David Schindler. Aquatic Sciences Seminars, Parsons Lab., 4:05pm, Rm 48-316. More info: x8-5554 or < janiscka@mit.edu>.
- On the Surface of Things: Images in Science\*-Media Lab Colloquium, 4:30pm, Bartos Theater (Rm E15-070). Refreshments, 4:15pm. Presented in conjunction with Felice Frankel's exhibit in the Compton Gallery (see listing
- Uphill Climb: Why Women Still Struggle to Succeed in Massachusetts Business and Politics\*-State Senator Lois Pines. Sponsored by Women in Technology and Policy, 6:30pm, Rm E51-345. Refreshments to follow. More info: Jeff, x8-9499.

#### THURSDAY, APRIL 3

- Demand Routing and Slotting in Ring Networks\*-Iraj Saniee, Sr. Research Scientists, Bellcore. Operations Research Center Seminar, 4-5pm, Rm E40-298. Refreshments to follow, Rm E40-106. More info: <a href="http://">http:// web.mit.edu/orc/www>, <toktay@mit.edu> or x3-7412.
- Theory of Land Subsidense Due to Pumping and Surface Loading\*-Prof. C. C. Mei, MIT. Engineering and Environmental Me chanics, 4-5:30pm, Rm 1-350. Refreshments, 3:30pm. More info: x3-7186.
- Images as Embedding Maps and Minimal Surfaces: A Unified Approach for Image Dif-



#### **Ongoing Community Meetings**

#### **■ COMMUNITY**

- MIT Ballroom Dance Club\*-Call for schedule, x8-6554
- The Furniture Exchange at MIT\*\*—Used furniture needed in good condition, to be sold to MIT/Harvard students. Donations are tax-deductible and receipted; our profits go to MIT scholarships. Call x3-4293 or x3-3656.
- GABLES (Gay, Bisexual, and Lesbian Employees and Supporters) at MIT\*\*—Meetings held twice a month, one for general business and one for a program or social gathering. Info line x2-1014. Staff lesbigay e-mail list sign-up, send e-mail to <gablesrequest@athena.mit.edu>
- Graduate Student Council Grocery Shuttle\*—The GSC offers a grocery shuttle from MIT to the Allston Star Market, free to all members of the MIT community, on Tuesday nights and Saturday mornings. The schedule and pickup locations can be viewed at <a href="http://">http:// /www.mit.edu:8001/activities/gsc/ Committees/HCA/Grocery/ grocery.html>. More info: Geoffrey Coram, <gjcoram@mit.edu>, 577-5719.
- MIT Toastmasters\*\*—Upcoming meetings: Mar 21, Apr 4, 18, May 2, 16, June 6, 20; July 11, 25, Aug 8, 22, Sept 12, 26 Oct 10, 24, Nov 7, 21, Dec 5, 19. An organization that helps people improve and practice their public speaking and presenta-tion skills. 12:05-1:25pm, Rm E19-220. Sponsored by MIT Personnel Office.

#### **■ FAMILY**

- Family Resource Center\*\*—See web site at <a href="http://web.mit.edu/personnel/">http://web.mit.edu/personnel/</a> www/frc/>. In addition to parenting workshops and programs, the Family Resource Center also offers support and training programs for child care providers, workshops at your request, a lending library, and individual consultations concerning parenting, schools, child care options, and work/ family issues. Call x3-1592 or <frc@mit.edu>.
- Family On-Line Services \*\* -- A computer workstation is available in the Family Resource Center reception area for those who would like to access child care databases and on-line parenting resources. Also, the FRC maintains a list of those members of the MIT community who would like to be on an e-mail list to receive news, program updates, etc. To be added to the subscriber list, email <frc@mit.edu> or call x3-1592.
- Fathers Group\*\*-Peer-led, informal discussions of the challenges and joys of fatherhood. No fee. Cosponsored by the Family Resource Center and the Health Education Resource Center. Open to MIT, Draper and Whitehead communities. Thursdays, 12-1pm, call or e-mail for meeting place, x3-1316 or <mit-
- New Mothers Group\*\*-Professionallyled group for expectant and new mothers. Exchange ideas on the special rewards and challenges of being a new parent. No fee, no preregistration required. Cosponsored by the Family Resource Center and the Health Education Resource Center. For schedule and further information, call x3-1316.
- Off-Campus Playgroups\*\*—The MIT Wives Group, with the cosponsorship of the Family Resource Center, provides ongoing support for establishing and maintaining informal parent-child playgroups. Contact Wives Group, Rm
- Parents Forum\*\*—Peer-led discussions offering parents a chance to connect with each other, reduce isolation, and share

fusion\*-Dr. Ron Kimmel, Lawrence Ber-

keley National Laboratory. Special EECS

Seminar, 4:15pm, Rm 34-401A. Refresh-

Vassar College. History, Theory and Criti-

cism Forum, 5:15pm, Rm 5-216. More info:

Duchamp at the Movies\*-Molly Nesbit,

The Evolution of Atmospheric Flight in the

20th Century\*—Dibner Institute Workshop,

organizers: Alex Roland, Duke University:

Peter Galison, Harvard University. More

ments, 4pm.

x8-8438 or x8-8439.

brary Reading Room.

FRIDAY, APRIL 4

info: x3-6989.

- successful strategies. Fathers and mothers who have children of any age are welcome. No fee. Enrollment limited to 20. Meets the second Thursday of each month, 1-2pm, Rm 4-206. More info: Chris Bates, x3-4084 or <cbates@mit.edu>.
- Parent Networks\*\*-Allows parents and other family members at MIT to exchange information and ideas on topics of mutual interest. Networks have been formed to date on
  - Parenting Children with ADD or ADHD Parenting Children with Special Needs
  - · Parenting Adopted Children More info: x3-1592
- Working Parents Group\*\*-Ongoing meetings weekly on Tuesdays, 12-1:30pm. Co-sponsored by the Family Resource Center and the MIT Medical Dept. New members welcome, no fee. For more information call

#### **■** HEALTH

- Alcoholics Anonymous (AA)\*-Meetings ev ery Tues, 12-1pm; Thurs, 12-1pm, Rm E23-364. Alise, x3-4911.
- Al-Anon\*-Meeting every Fri, noon-1pm, Rm E25-525; every Wednesday (4th step) 12-1pm, Rm E53-212, Dewey Library (2nd Fl. Lincoln Lab Bldg 1218, Family Support Ctr. The only requirement for membership is that there be a problem of alcoholism in a relative or friend. Alise, x3-4911.
- Alcohol Support Group\*\*-Meetings every Wednesday, 7:30-9am, sponsored by MIT Social Work Service. Alise, x3-4911.
- Cancer Support Group\*\*-Tuesdays, 12:15-2pm. For those with acute and chronic forms of cancer. Sponsored by the MIT Medical Dept. Dawn Metcalf, Social Work Service, x3-4911.
- Co-Dependents Anonymous (CoDA)\*—Thurs days, 6:30-8pm, Rm 66-168. Alise, x3-4911
- Crying and Colic Support Group\*\*--Meet-ings to be scheduled. Share common concerns, frustrations, strategies for coping with a crying baby or young child. Babies & tod-dlers welcome. Parking available. No fee. Cosponsored by the Family Resource Center and the Medical Dept. More info: x3-2466.
- Early Pregnancy, Prepared Childbirth and Childbirth Review\*\*—Classes are offered to patients of the MIT Medical Department's Obstetrics Service. Call x3-1316.
- Health Education Resource Center\*\* -- Books. free video loan program and brochures on diet, exercise, wellness, childbirth, parenting, aging and much more. Rm E23-205; open weekdays 9-5pm. Call x3-1316.
- Infertility Support Group\*\*—Fridays 12-1pm, 3rd floor group room, Medical Department. Sponsored by the MIT Medical Department More info: Dr. Rochelle Friedman x3-2916
- Nursing Mothers Room\*\*—A comfortable, private place to nurse babies or express milk. Equipped with a hospital-type breast pump. Cosponsored by the Family Resource Center and the Medical Dept. Located within the Women's Lounge in Rm 10-384, accessible 24 hrs/day. Make arrangements with Margery Wilson, Rm E23-407, x3-2466.
- Nursing Mothers' Group\*\*-First & third Wednesday of each month, 11am-11:55pm. Rm E23-297. For pregnant and nursing women. Babies & toddlers welcome. Parking available. No fee. No registration. Sponsored by the Medical Dept. and the Family Resource Center. More info: x3-2466.
- RSI Alert!\*\*-RSI Alert! is a group of MIT employees and students dedicated to 1) creating an awareness of RSI (Repetitive Strain Injury), 2) educating to prevent RSI, and facilitating treatment and accommodations for those who have RSI. We meet every 2nd Wednesday of the month, noon-1:00, in Room 14N-405. For further notices, subscribe to our

- listserv by sending an email to du> with the message, "subscribe rsialert your name," or for more information, call x3-6695.
- Weight Watchers at Work\*\*-New session starting. More info: Anne Hudson x8-5683 for more information.
- Yoga for Beginners\*\*-Sponsored by the MIT Women's League, Mondays, 5:15-6:30pm, Walker Dance Studio, Rm 50-201. More info: Ei Turchinetz 862-2613.

#### ■ INTERNATIONAL

- MIT Language Conversation Exchange\*\*—Practice a language with a native speaker and get to know from another country. Call x3-1614 for more information.
- Stammtisch/German Table\*-Join us for lunch auf deutsch, all are welcome. Every Monday 1-2pm, MIT's Walker cafeteria. More info: <debi@mit.edu> or <sberka@mit.edu>
- Guide for Foreign National Spouses Seek-ing Work\*\*—Information on topics such as American resumes, job interviews, volunteer work, employment agencies, salary negotiation, visa issues, much more. Free information booklets, Rm 5-106 and Rm 4-105. Reference binders may be used in Rm 12-170; ask for Beth Anderson.
- Job Search Support Group\*\*—Self-help group for spouses of foreign nationals who are looking for paid or volunteer work. Sponsored by the MIT Wives' Group. More info: Miriam Richmond, 225-2698.
- Chinese Lunch Table. Mondays, 12-2pm, Student Center, Rm 439. Bring your own lunch and come practice speaking Chinese. All levels welcome. Extensive collection of books also available in our library. Sponsored by the Chinese Stu-
- Esperanto Conversation Group. Mondays 7:30-9pm in the SCC Coffeeshop in the Student Center. Sponsored by the MIT Societo por Esperanto. More info-<speak@athena.mit.edu>.
- La Table Francophone. Thursdays 1-2pm in Walker. Open to anyone who wants to speak French over lunch in a friendly atmosphere. Call x3-9777.
- Japanese Lunch Table. Thursdays through Dec 8 (except Nov 24) at 12:30-2pm in Rm E38-7th floor conference room. All members of the MIT community are welcome to come and make new friends-in English or Japanese. Cosponsored by the MIT Japan Program and the MIT Japan Friendship Association. More info: Mitsuko Barker 723-8788 or Sue Sherwood x3-8095.
- MIT Japan Program\*\*—Students: Go to Japan with the MIT Japan Program, and do cutting-edge research in your field in a Japanese corporate, government or academic organization. All expenses paid. More info: x3-8737 or x8-8208.
- Hosts to International Students Program\*-Offer assistance, encouragement and occasional hospitality to our students from around the world. Not a home-stay program. Faculty, staff and alumni/ae (singles, couples or fami-lies) are encouraged to participate. Kate Baty, x3-4862.
- Mandarin Language Round Table\*—Informal discussions for Mandarin language students and speakers, with Visiting Scholar Xu Pei-hua of Fudan University, Shanghai. Every Thursday (except March 28) from 12:30-1:30pm, Rm E38, 6th floor conference room. Bring your own lunch. Sponsored by the MIT International Science and Technology Initiative. More info: x8-7331.

Step Outside the OR (Tool)Box: Creating Solutions for the Real World\*-Dr. Tho. mas Cook, President, SABRE Decision Technologies. Center for Transportation Luncheon Seminar on the theme of "Chief Executive Viewpoints," 12-12:45pm (lunch: \$4/MIT students, \$7/others), 12:45-2pm (lecture), Rm 10-105 (Bush Rm.). Open to MIT community

and outside transportation and logistics com-

Hospital Times\*-Amy Hoffman. Part of the How Does Chaos Affect Material Processing & 'authors@mit" series sponsored by the MIT Machine Design\*—Prof. Francis C. Moon, Sibley School of Mechanical and Aero-Press Bookstore and the MIT Humanities and Dewey Libraries, 5:30pm, Humanities Lispace Engineering, Cornell Univ. Mechanical Engineering Series, 3pm, Rm 3-270. More info: x2-1490 or x3-1925.

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Graft Copolymers and Their Biomedical Applications\*—Alan S. Hoffman, Univ. of Washington. Alan S. Michaels Lectureship in Biological and Biomedical Engineering, sponsor: Chemical Engineering, 3pm, Rm 66-110, Refreshments, 2:45pm.

Self-Similarity and Scaling Laws of Fluvial Basin Morphology\*—Prof. Daniele Veneziano, MIT. Sponsored by the Dept. of Earth, Atmospheric and Planetary Sciences, 4pm, Rm 54-915. Refreshments, 3:30pm, Ida Green Lounge

#### SATURDAY, APRIL 5

- The Evolution of Atmospheric Flight in the 20th Century\*-Dibner Institute Workshop, organizers: Alex Roland, Duke University; Peter Galison, Harvard University. More info: x3-6989.
- The Courtyard House and the Urban Fabric\*-International architecture conference sponsored by the Aga Khan Program at Harvard and MIT. Rm 6-120. For de-

(continued on page 5)

## Merck, MIT sign agreement

(continued from page 1) million over an initial five-year period, with an option to extend these collaborations to 10 years.

Merck will support faculty in science and bioengineering areas in developing technology and research. One project under consideration is in the area of biocomputing/computational science and infomatics applied to biology

MIT will propose programs and projects to joint collaboration managers. The Institute will also have the right to publish articles on the research. MIT students and faculty engaged in these Merck-funded activities will participate in symposia on their activities.

"MIT students and faculty will learn a lot from interacting with Merck scientists, and we are very excited about the agreement," said Professor Phillip A. Sharp, head of the Department of Biology.

Robert Malster, MIT manager of corporate relations who guided the interactions that led to the proposal, called it an "outstanding agreement. MIT and Merck, both world-class performers, will use this partnership to prepare for the next decades."

In addition, Merck will support a group of 18 Merck Scholars through creation of a MIT-Merck Fellowship Program-eight scholars at the graduate level in engineering, physical science and mathematics-and 10 at the postdoctoral level in biological science.

The Merck-MIT agreement provides for full participation by faculty, fellows and students at MIT and the Whitehead Institute. The collaboration will be directed by a joint six-member team of collaboration managers. For MIT, these are Professor Sharp; Nancy Hopkins, professor of biology and a member of the Center for Cancer Research; and Institute Professor Daniel Wang of chemical engineering, director of the Biotechnology Process Engineering Center. Collaboration managers for Merck are Dr. Scolnick, who is also a member of the Merck's board of directors; Dr. Bennett M. Shapiro, executive vice president of Merck Worldwide Basic Research, and Dr. Myra B. Kurtz, senior director for Merck Research.

Based in Whitehouse Station, NJ, Merck is a global pharmaceutical company that discovers, develops, manufactures and markets a broad range of human and animal health products and services.

Kenneth D. Campbell

## No squid, but a good job by AUV

■ By Carolyn Levi MIT Sea Grant College Program

The giant-squid hunters from MIT Sea Grant's Autonomous Underwater Vehicles (AUV) Laboratory came back to campus empty-handed with respect to squids, but fully satisfied with the performance of their underwater vehicle in the depths of New Zealand's Kaikoura Canyon.

When MIT last saw the team (James G. Bellingham, principal research engineer; Robert Grieve, research specialist; and Bradley A. Moran, research engineer) in early February, they were off to New Zealand with the AUV Odyssey IIB to join the Smithsonian Institution's squid-hunter, Clyde Roper, on a quest to find a giant squid (Architeuthis) alive and in its natural

Odyssey performed flawlessly. "The vehicle did what it was supposed to do. We ran it nearly to the bottom and through various regions of the canyon; we had much slower runs than we thought possible; we learned a lot about how to run biological experiments; and we learned a lot about how to search for squid," Dr. Bellingham said. "But there were no giant eyeballs appearing in the camera.

Most runs focused on the mid-water column about 550 meters deep. It

was in this region of ocean that other mission participants spotted an arrow squid and that Odyssey swam though blizzard-like formations of jellyfish all good indications of prey to be found by any hungry Architeuthis.

#### **GUIDING STRATEGY**

The Odyssey runs also yielded clues for future squid-seeking forays. "Hopefully the data we brought back will help in the coming year," Dr. Bellingham said. He noted that the squid hunters

are now reworking their strategy to include a manned submersible.

Considering the vast amount of water to be searched, Dr. Bellingham suggested speeding up the search rate with acoustic techniques. He predicts that such an approach would allow for search rates that are faster by a factor

Odyssey's next extended mission will be in early 1998 in the Labrador Sea, where the vehicle will explore ocean circulation.



The research team hunting for a live giant squid didn't have a close encounter like this (a 19th-century sailor's worst nightmare), but they were pleased with the performance of Odyssey IIB.

## MIT adopts ROTC aid-guarantee policy

(continued from page 1) chair of CUAFA, and Associate Professor of History William B. Watson. They plan to present a full report to the faculty

The team was appointed after a faculty task force called for a modified ROTC program open to all students, including those not eligible for federal scholarships or commissions, without discrimination or differential treatment. The faculty resolution called for "tangible" progress toward this goal within two years. Professors Vandiver and Watson and Ms. Gallop were also members of the task force. In addition, Professor Watson is the chair of the ROTC

(continued from page 4)

tails call Attilio Petruccioli, MIT organizer,

x3-1418 or <minas@mit.edu>. Continued on

The Courtyard House and the Urban Fabric\*\*—

International architecture conference sponsored by the Aga Khan Program at Harvard

and MIT. Rm 6-120. For details call Attilio

Petruccioli, MIT organizer, x3-1418 or <minas@mit.edu>. Continued from April 5.

**■ COMMUNITY CALENDAR** 

April 6.

**SUNDAY, APRIL 6** 

Oversight Committee.

About 80 faculty members approved the task force resolution on a voice vote at a regular faculty meeting on April 17. There was one "no" vote and three abstentions.

#### Regular Blue Cross visits planned

The next visit to MIT by a Blue Cross/Blue Shield representative will be on April 4. The Benefits Office is scheduling these visits approximately once a month for employees and retirees enrolled in Blue Choice, Medex and Managed Blue for Seniors to resolve problems they were unable to resolve by calling their plan's customer service representative. The visiting representative will also provide information to new Blue Choice members.

To schedule an appointment with the representative at the Benefits Office (Rm E19-411) during the Day on April 4, call x8-7489. Notices of future Blue Cross visits will be published in the Calendar section of MIT Tech Talk.

**■ SENIOR FOCUS** 

Strength Training and Aging\*\*—Mar 20: Learn how to avoid osteoporosis and increase your strength. Sponsored by the Retiree's Association of MIT and the Health Education Service, 11am-12pm, Bartos Theatre (Rm E15-

AARP Chapter Meeting\*\*—Mar 25: Presenta-tion by the Mystic Valley Railway Society, 4:30pm, Stratton Student Center, Rms 301 302. Coffee & cookies served. More info: Debra Fair x3-7914.

**■ MITAC** 

Special Notice: The MITAC Office will be closed Wednesday, March 26.

The MIT Activities Office (MITAC) is a nonprofit employee service that serves the cultural and recreational needs of the MIT community (including MIT's retirement community), their families, and friends. Two locations: (1) Room 20A-023, 18 Vassar St. Cambridge, 9:30am-3:30pm, Monday, Wednesday, Thursday, and Friday (closed Tuesday and all Institute holidays); (2) Room LLA-218, x6130, Lincoln Lab. Lexington, 1:15-4pm, Thursday and Friday only. Call x3-7990 at 20A-023 or e-mail <iulieh@mit.edu> for further information. Please note that MITAC accepts only cash or a personal check (with a valid MIT ID) made payable to MIT. (Include MIT ID#, room number, and extension on checks.) Credit cards not

Juno and the Paycock\*\*-Apr 6: Lyric Stage, Boston, 2pm. Tickets \$15.50 (reg. \$24). Must be purchased by Mar. 21.

Boston Red Sox vs. Kansas City Royals \*\*-May 6: Fenway Park, 7:05pm. Tickets \$13.50 (reg. \$16).

Preservation Hall Jazz Band\*\*—Apr 13: Symphony Hall, Boston, 3pm. Tickets \$35.

Shear Madness\*\*—Apr 20: Charles Playhouse/ Stage II, Boston, 3pm. Tickets \$20 (reg. \$28). Must be purchased by Mar 21. Alvin Ailey American Dance Co.\*\*-Apr 26: Wang Center, 2pm. Tickets \$34 (reg. \$40). Must be purchased by Mar. 28.

Handel & Haydn Society\*\*—May 4: Symphony Hall, 3pm. Tickets \$29.50 (reg. \$45). Must be purchased by Mar. 28.

Museum Passes\*\*-Children's Museum, \$4 (reg \$6-7); Museum of Science, \$4 (reg \$5.50-

Nick's Comedy Stop\*\* Tickets \$5.50 (\$5 + 50¢ svc charge), admits 2 people.

Discount Movie Tickets\*\*-Sony Theatres, Showcase Cinemas, General Cinemas \$5 (\$4.50 plus 50¢ svc chg); General Cinemas, children \$3 (\$2.75 + 25¢ svc chg); Kendall Square Cinema, \$5.50 (\$5 plus 50¢ svc chg).

#### **■ MOVIES**

Admission to below Lecture Series Committe Movies is \$2.00, and MIT or Wellesley identification is required. For the latest Lecture Series Committee ovie and lecture information, call the LSC Movieline, x8-8881, or check TechInfo or the Web.

Apr 4: Jerry Maguire, 7 & 10pm, Rm 26-100. The Wild Bunch, 7:30pm, Rm 10-250. Apr 5: Star Trek: First Contact, 3, 7, 10pm, Rm 26-100.

Next deadline for listings: 12 noon Friday, March 28. Covers events from Wednesday, April 2 through Sunday, April 13. Listings for the Institute Calendar and Student Notices may be emailed to <ttcalendar@mit.edu> or mailed to Calendar Editor, Rm 5-111. Faxes not accepted.

#### Submission Guidelines for Tech Talk Calendar, Classified Ads and Notices

Calendar Items/Notices

· E-mail Address: <ttcalendar@mit.edu>

• Format as follows: Date. Title of Lecture/Event/Notice-Speaker, affiliation. Short description (may be edited). MIT sponsorship, time, location. Contact person, phone or e-mail address. Open to general public or not. (Note: listings open to the public may be published in the local press.)

#### **Classified Ads**

· Keep ad length to about 30 words.

· No more than one ad per issue per person.

Ads may not be repeated in successive issues. Renewals must be resubmitted after skipping an issue. Ads/renewals are not accepted via telephone or fax.

· You must be a current member of the MIT community (student, staff, faculty, Draper, Lincoln Labs, etc.) or a retired staff or faculty member to place an ad. Include full name and phone extension (or proof of MIT affiliation).

• E-mail Address (must be mailed from an mit.edu address): .... < ttads@mit.edu>

· Tech Talk ads are intended for personal and private transactions between members of the MIT community and are not available for commercial use. The Tech Talk staff reserves the right to edit ads and to reject those it deems inappropriate.

Deadline for ads, calendar items and notices is noon Friday before publication.

Please note that all Tech Talk ads and notices are provided to TechInfo on the date of publication, which makes them accessible world-wide via the Internet.

#### Family Resource Center Seminars\*—Mar 20: Children of Divorce, 12-1:30pm, Rm 14E-304. Apr 4: Teaching Teens Responsibility, 12-1:30pm, Rm E19-758. Preregistration re quested, call x3-1592 or e-mail <frc@mit.edu> or see <http://web.mit.edu/ personnel/www/frc/>. Sponsored by the Family Resource Center.

GABLES at MIT\*-Mar 31: Monthly lun cheon, 12:10-1pm, Café LaBrioche, 101 Main St. RSVP <rtdavis@mit.edu>. Info:

Health Education Service Workshops\*\*-Mar 21-May 9: Tai Chi. Fridays, 8 sessions, 12:30-1:30pm, \$70 (\$65 MIT Health Plan, students, retirees). Mar 24-May 10: Yoga, Mondays, 8 sessions, 1:30-2:30pm, \$70 (\$65 MIT Health Plan, students, retirees). Mar 25-May 13: Exercise and Fitness for Women. Tuesdays, 8 sessions, 12-1pm, \$70 (\$65 MIT Health Plan, students, retirees). Mar 26-May 14: Yuanji Therapeutic Dance and Exercise. Wednesdays, 8 sessions, 12-1pm, \$70 (\$65 MIT Health Plan, students, retirees). Mar 31-June 2: Fed Up With Dieting but Still Determined to Lose Weight? Mondays, 8 sessions, 12-1pm, \$70 (\$65 MIT Health Plan, students, retirees). Apr 4-May 23: Mindfulness Meditation. Fridays, 8 sessions, 12-1pm, \$70 (\$65 MIT Health Plan, students, retirees). Preregistration required, limited enrollment. More info:

Health Education Services Free Parenting Programs\*\*-Mar 19: Helping Your Child Be Friends. Mar 26: Raising Children to Fell Good About Themselves. Apr 2: Secrets of Successful Discipline or How To Get Preschoolers To Do What You Want. 12-1pm, Rm E23-297. More info: x3-1316.

Infant-Toddler Child Care Briefings\*\*-Mar 31: Introductory discussions for expectant parents and those new to parenting or child care, covering types of care, costs, finding and evaluation care, and parental leave. Sponsored by the Family Resource Center, 12-1:30pm, Rm 4-144. Preregistration required,

Informal Needlework Group\*\*-Sponsored by the MIT Women's League, 10:30am-1:30pm, Rm 10-340 (Emma Rogers Room). Upcoming meetings: Mar 19, Apr 2, 16, May 7, 21, June 4.

Lifeguard Training\*\*-Mar 24-28: The Red Cross will be offering lifeguard training at the MIT Alumni Pool over spring break, 9am-5pm, \$149. MIT students will receive Physical Education credit for completing the class. Call 375-0700 x221.

MIT Pistol & Rifle Club, Basic Pistol Marksmanship Course\*-Starts Apr. 10: 4 nights—Apr. 10, 11, 17, 18, 6-9pm, duPont pistol range. NRA certified course covers safe handling, storage and use of firearms, as well as developing marksmanship skills to meet local police department requirements for pistol permits. Fee \$50, \$10 deposit. Info/ registration: Valerie Lowe, Draper x8-4769 or e-mail: <vlowe@draper.com>

User Groups and Quick Start Classes\*\*-Mar 19: Eudora Quick Start, 12-1pm, Rm E40-302. Mar 20: OS/2 User Group, 5-6:30pm, Rm 2-105. Mar 21: Windows 95 Quick Start, 12:15-1pm, Rm 11-206. Mar 24: World Wide Web Quick Start, 12-1pm, Rm E40-302. Mar 25: Troubleshooting Word, 12-1pm, Rm 11-206. Mar 26: Technology Orientation for New (and/or Confused) Employees, 12:30-2pm, Rm E40-302. Mar 27: HTML Demo, 9-12pm, RM E40-302. CWIS Publishers User Group, 12-1:30pm, Rm E40-302. All events free. Sponsored by Information Systems.

MIT Wives' Group\*\*-Mar 19: Easter Egg Hant and Egg-Decorating Demonstration. 3 4:45pm, Student Center Room 400, Mar 26: Group Family Ice Skating, kids & spouses welcome, 11:45am (skating 12-1pm). Bring your own skates or you can rent them for \$5. Bring your MIT card and MIT Athletic Card (if you have one). All members of the MIT

community are welcome. Info: x3-1614.

## Here & There

■ Prompted by the Japanese economic boom and bust, Charles P. Kindleberger, Ford International Professor of Economics emeritus, has written a third edition of his 1978 history entitled Manias, Panics and Crashes: A History of Financial Crisis. Other updates in the new edition are discussions of the US stock market crash of 1987 and the recent peso devaluation. "Kindleberger is a good writer and presents a lively and informative history," wrote the Fort Worth (TX) Star-Telegram in a February 24 capsule review

■ In a February 9 New York Times article about the potential problem of repetitive strain injury among college students who spend hours at the computer, Dr. David Diamond, an internist with the MIT Medical Department, details MIT's experiences with student RSI. While RSI is not a crisis at the Institute, he sees one to three students a week with the condition and estimates there are four to six serious cases a year, mostly among graduate students. "They've had to modify their course loads, change deadlines, think of alternative careers," he says in the article

While universities can't monitor computer use as easily as employers can, Dr. Diamond notes that freshmen get training during R/O on how to avoid RSI. MIT has also formed an RSI committee among administrators and is buying ergonomically correct chairs and workstations for students

■ The Complete Works of Shakespeare, a Web site created by The

Tech, came in for praise in an Orange County Register article about math, social studies, language arts, science and reference resources on the Web. "Not enough good things can be said about [the site]," the article said. "While reprinting the plays and sonnets in their entirety, this Massachusetts Institute of Technology site still makes the Bard as accessible as Cliff's Notes. How? By using hypertext, the ultimate footnote. Many difficult words and phrases are highlighted, allowing readers to simply click in order to find the definition or explanation."

**DIANA BORSINI** 

retired in 1995.

Cemetery in Medford.

Land ho

**RALPH S. CATALDO** 

A funeral was held at the Long

Home for Funerals on February 24 for

Diana Borsini, 67, of Somerville, who

died on February 21. She was hired at

MIT in 1957 and was a senior office

assistant at the MIT Press when she

brothers, Jeremiah A. and Latino L. of

Somerville, and several nieces and

nephews. She was buried in Oak Grove

A funeral Mass was said on Febru-

Ms. Borsini is survived by two

The URL for The Complete Works of Shakespeare is <a href="http://">http:// the-tech.mit.edu/Shakespeare/ works.html>.

#### QUOTES:

-"It's always more exciting when something doesn't fit into theories; that means you're truly making progress. When I've seen new things, sometimes I've been so excited I just cheer out loud and kind of dance around the control room. It's that much fun."-Research scientist Heidi Hammel of earth, at-



Hammel

mospheric and planetary sciences, on how she and other scientists look forward to more surprising new knowledge from the recently refurbished Hubble Telescope, in a

February 19 article in the Ft. Lauderdale (FL) Sun-Sentinel.

## **Obituaries**

ary 22 at St. Michael's Church in Bedford for Ralph S. Cataldo, 65, of Concord, who died on February 13 after a December 8 car accident which also claimed his wife Barbara. He was an electrical engineer at Lincoln Laboratory who retired last year after 23 years of service.

Mr. Cataldo is survived by two daughters, Linda M. of Goffstown, NH, and Laurie J. of Germantown, MD, and a son, Richard F. of Boca Raton, FL. He was buried in St. Bernard's Cemetery in Concord. Contributions in his memory may be may to the American Heart Association, 20 Speen St., Framingham, MA 01701 or the Northeast Animal Shelter, 204 Highland Ave., Salem, MA 01970.

#### THOMAS W. HALPIN SR.

A funeral Mass was held at St. Joseph's Church in Everett on February 18 for Thomas W. Halpin Sr., 69, of Malden, who died on February 13. He began working at MIT in 1978 and was head custodian in Physical Plant at his retirement in 1992.

Mr. Halpin is survived by two daughters, Nancy Sullivan of Malden and Charlotte Skiffington of N. Reading, and a son, Thomas Jr. of Malden, and three grandchildren. He was buried in Holy Cross Cemetery in Malden. Donations in his memory may be made to the American Cancer Society, 30 Speen St., Framingham, MA 01701.

#### WILLIAM SAMPSON

William Sampson, 87, of Dorchester, a retired custodian in Physical Plant who retired in 1975 after 19 years of service, died on February 14. Survivors include his wife, Agnes.

#### **EDNA WATKINS**

Edna Watkins, 76, of Cambridge, died on February 14. She was hired in 1970 and was an infirmary aide in the Medical Department when she retired in 1983. She is survived by a son, Vusumuzi Maduna of Boston; a daughter, Arllette Watkins of Belmont, and five grandchildren.

#### **FREDERIC W. WATRISS**

Frederic W. Watriss, 78, of Concord, a former associate treasurer, died on February 20. He began his MIT career in 1941 and retired in 1978. Mr. Watriss received the SB in industrial management from MIT in 1941 and was involved in aircraft testing at the Wright Brothers Wind Tunnel during World War II.

He leaves his wife, Mary E.; two sons, Frederic Jr. of Concord and James G. of Acton; a brother, James of Glyndon, MD, and two grandchil-

## TCC openings announced

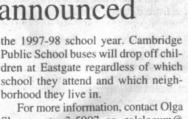
The Technology Children's Center now has the following openings: Eastgate half-day nursery school (8-12:30am)—three MWF slots and two 5-day slots.

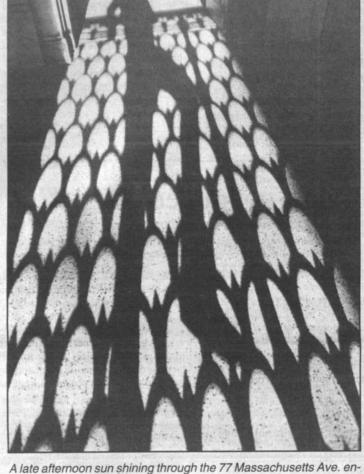
Eastgate Afterschool Program (K-2; 2-5:30pm)—three 5-day slots.

TCC is also signing up children for

the 1997-98 school year. Cambridge Public School buses will drop off children at Eastgate regardless of which school they attend and which neigh-

Slocum at x3-5907 or <olslocum@





trance elongates human and balcony-front shadows on the floor Photo by Donna Coveney overlooking Lobby 7.

## Classified

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- · E-mail address (return address must be mit.edu): <ttads@mit.edu>
- Interdepartmental/Walk-in address: Calendar Editor, Rm 5-111.

Please note that all Tech Talk ads are provided to TechInfo on the date of publication, which makes them accessible world-wide via the

All extensions listed below are campus numbers unless otherwise specified, i.e., Dorm, Lincoln, Draper, etc.

MIT-owned equipment may be disposed of through the Property Office.

Deadline is noon Friday before publication.

#### FOR SALE

Color monitor, 3/86 computer; 80 Mb HD, 5.25 & 3.5" disk drs. mouse. Windows 3.1, WordPerf 5.2, Excel, Graphics prog, askg \$300. Martin 492-2152 or <hennegri@helix.mgh.harvard.edu>.

Thomas Minstrel 130D organ with mini-mate

rhythm section, like new, \$300 and you pick up. Cheryl x3-9755.

HP B/W Deskscan IIp Scanner for PC/Mac with software and cable, \$200. Call 247-0197.

Deco wardrobe: 2 closets & 3 drawers & extra storage space, inlaid wood, orig mirror & casters, beaut and useful, 40x20x72, \$425. Contact < sexton@psfc.mit.edu> or 822-2183.

Drill press: 3/4 HP floor model w/adj cast iron tabl hardly used, moving, must sell, askg \$125; 2 oak end tables w/glass top inserts, 24"x28", askg \$25/ea. Pam 868-5321 or x3-3123.

Part of estate: side by side refrig-freezer, \$150 or bst; Maytag gas dryer, \$225 or bst, F-sz bedroom set, \$500 or bst. Bea 438-3776.

Little Tikes Workshop w/tools, exc cond, \$50. Cheryl 252-1122 or 438-1908 or <cmt@mit.edu>.

Double bed, \$75; single bed, \$50; 4-drawer & 2drawer file cabinets, \$10/ea; buffet, \$50; desk & chair, \$125; all v gd cond. Jane 275-9360.

Crawford red maple dining rm set: table 38"x64" w/2 leaves: 4 side chairs, 2 arm chairs, from Paine Furniture, exc cond, pd \$1400, askg \$900 or bst. MaryEllen x3-9436.

#### **■ VEHICLES**

86 Isuzu pick-up, 108K, one owner, new stereo. cass, runs grt, gd cond, \$700 negot. Call 623-

1990 Mercury Sable Wagon, V-6, metallic blue, 4-dr, 7-8 pass, AM/FM/cass stereo, pw, a/c, rf rack, grt shape, nw brakes, tune-up, hi miles, nds head gasket, \$4,000 or bst. Debbie x3-3879.

1991 Acura Integra, exc, maroon w/gray int, 75K, moonroof, \$7500. Call x3-3087 or 508-281-5190

1993 Hyundia Excel, 4-sp 2-dr htchbk, mint cond, 70K, \$2000. Jim, Draper x8-2977.

1995 Volvo 850, forest green w/leather int, auto a/c, loaded, 68K hwy miles, full service, exc cond, \$17,500 negot. Call x3-3096 or e-mail <janine@crc.mit.edu>.

#### **■ HOUSING**

Cambridge: 2BR, 12 minute walk to MIT, completely furnished, sm grand piano, laundry in bldg, avail April 1, \$1225/mo. John 721-7725 or <jfn@draper.com>.

Florida: Disney area, 3BR, 2b condo, htd pool, slps 8, 10 min to Disney, \$450-525/wk. Gary x3-6177(w),666-5805(h),<dekow@pfc.mit.edu>, <users.aol.com/mcdeeke>

Hyannisport/Craigville Beach: 3BR Cape, walk to warm-water beach, child-safe street, no smkg/ pets, \$700/wk July & Aug, \$550/wk June & Sept. Steve, Linc x7137 or <mcalarney@ll.mit.edu>.

#### ■ WANTED

Icelandic doctor & wife wish to rent furn apt July 15-Oct 1 nr Red Line, non-smkrs, fastidious house keepers, impeccable credentials. Contact Helgason x3-3668 or < helgason@mit.edu>.

Apt wanted nr Red Line for married couple, 1BR. unfurn, ~ \$600/mo if poss, cannot afford to pay a

fee, nd for ~ Apr 1, but dates flex. Laura Moses x3-3452 or 661-8961, or e-mail < lhurst@mit.edu>.

Summer housing needed: prof couple (MIT grads) & infant in Boston area June and/or July, will house sit/rent, refs. Steven/KarenJo910-316-2237,617-862-3728 or <shapiross@rascal.guilford.edu>.

Studio apt wanted, reasonable rent (\$475-\$525) in Cambridge, Somerville, Malden, Arlington or Medford. Need for April or May 1. Please call Helene 643-7299 or x3-2845.

Foreign F medical student sks cheap room or housesitting possibility for April, earlier if needed, willing to help around house & cook, quiet, nonsmkg, refs. Nora x3-3097 or 864-2765.

#### **■ ROOMMATES**

Brookline: 30+ non-smkg F to share 2BR, 2b apt nr C line, d/d, a/c, cable TV, porch, laundry, no pets, avail 4/1, \$650/mo. E-mail Imanion@mit edu>

#### LOST AND FOUND

Found: textbook in VI-A Office (Rm 38-473) during VI-A Interviews. To claim ownership, please identify. Lydia x3-4656 or x3-4644

Lost: Ray-Ban sunglasses, wire-frame, lost on Mar 3 or Mar 5. Gregg x3-2627.

#### **■ CHILDCARE**

On-campus child care sitters wanted, 2 hours on Wednesday afternoons (3-5pm). Kristin Swoszowski Tran, x3-1614 or e-mail <swos@mit.edu>.



## New Programs for New Parents

· Getting Ready For Your Baby Tuesday, April 1; 6-7:00pm

 Transition to Parent-Tuesday, April 8; 7-8:30pm

Becoming A Father Tuesday, April 15; 7-8:30pm

 Baby Basics Tuesday, April 22; 7-8:30pm

· Safety for Infants and **Toddlers** 

Tuesday, April 29;7-8:30pm

Free to MIT Health Plan members & students. All others, \$10 nonrefundable. Preregistration required.



MIT Medical **Health Education** E23-205 253-1316

## Competitions seek student artists

S cherzos and sketching, glissandos and glass blowing, sonatas and silk screens—MIT students are invited to display their artistic talents for two upcoming competitions. The MIT

Symphony Orchestra (MITSO) seeks soloists in its concerto competition and the Stu-

and the Student Art Association (SAA) is looking for visual artists to compete for a cash prize and a chance to exhibit their works

#### **CONCERTO COMPETITION**

The deadline for entry in this year's MITSO Concerto Competition is Tuesday, April 1. One winner will be selected from the MIT/Wellesley student body to perform a concerto with the orchestra during the 1997-98 season. Soloists who have already performed with the MITSO are not eligible. All concerto repertoire is acceptable and the entire work must be prepared for the audition. Accompanists are not necessary

Applications may be picked up at the Concerts Office (Rm 14N-207) or downloaded from <a href="http://web.mit.edu/mta/www/music/symphony/concertoform.html">http://web.mit.edu/mta/www/music/symphony/concertoform.html</a>>. Auditions will be held on Sunday, May 4 from 9am-3pm in Kresge Auditorium. For more information, call x3-2826.

#### SCHNITZER PRIZE

**Arts at MIT** 

The entry submission date for the

second annual Harold and Arlene Schnitzer Prize in the Visual Arts is Wednesday, April 2.

Three prizes will be awarded to registered MIT students, based on a body of work: first prize is \$1,000, second prize is \$600 and third prize is \$400. Artists must submit at least three pieces of original work or one piece of original work and visual representations of other originals (to be available for later viewing), along with a written personal statement concerning his/her creative interest as it pertains to the works and art in general.

A panel from the MIT arts community will judge the artists' overall artistic talents and creative concept on Friday, April 11, and announce the winners the following week. The winning entries will be displayed in the Wiesner Student Art Gallery from May 13 through June 14, with a winners' reception on May 13. The winners' names will be added to the permanent plaque on the wall of the

The award was established by the SAA through an endowment from Harold and Arlene Schnitzer of Portland, OR. Mr. Schnitzer, a real estate investor, graduated from MIT in 1944 with a degree in metallurgy.

Applications are available at the SAA (Rm W20-429), the Campus Activities Complex (Rm W20-500) and the Office of the Arts (Rm E15-205). For more information, call x3-7019.

## Student savings on play tickets

Student Rush coupons are available in the Office of the Arts (Rm E15-205) for the New Repertory Theatre's upcoming production of David Mamet's American Buffalo. With the coupon, students can buy tickets for \$10 apiece on the day of the performance. Regular prices are \$19-\$27. (Note: American Buffalo contains strong language and mature themes.)

The play runs through April 13. The New Rep is located in Newton Highlands and is easily accessible by public transportation.

#### Pastoral pastels



New England Landscapes: An Interpretation in Pastel, an exhibition of Teresa M. McCue's paintings, will open at the Dean's Gallery with a reception on Thursday, March 20 from 4:30-6pm. The show will run through April 30. The Dean's Gallery in Rm E52-466 is open weekdays from 9-5pm. For more information, call x3-9455 or go to <a href="http://web.mit.edu/deans-gallery/www/">http://web.mit.edu/deans-gallery/www/</a>.

#### **Arts News**

"Find out what the university culture is, not just what you want it to be" and "involve the students" were among the words of advice offered by Associate Provost for the Arts Alan Brody in a February 20 panel discussion at Northeastern University entitled "The Mission of the Arts Educator Related to Today's Liberal Arts Concerns."

■ Professor Peter Child's Tableaux was performed at a February 28 Boston Musica Viva concert, which the Boston Globe's Richard Buell has already put onto "the list of 1997's best concerts." Mr. Buell wrote, "A sure but delicate hand is evident in [Tableaux's] instrumental twinnings,

its way of having its music-stuff cohere or pile up additively."

"In the end, Kosuth shows us the context for viewing art, and we see ourselves," wrote the Boston Globe's Cate McQuaid of Joseph Kosuth: Redefining the Context of Art 1968-97, on view at the List Visual Arts Center. "Improvisational, collaborative art put together by people around the world may well be an entirely new form," she wrote of the List Center's exhibition, Port. "It's an exciting prospect... They're not aiming for high art; they're aiming for high interactivity. Given the newborn quality of their pursuits, that's good enough."

## Leon offers dramatic advice

(continued from page 1) that famed South African playwright Athol Fugard once gave him: Be yourself. Remember to laugh. And trust the

"Three things make a play great: the actors' faith and trust in each other as people and as performers, their faith and trust in the director, and their faith and trust in the play," he told the group of about 20 students.

A great play is not made, he assured the group, by actors trying to guess what directors want, by directors trying to guess what producers want, and so on up the theater-job food chain. Instead, he encouraged young dramatists to go for honesty and impact—the "magic," as Mr. Leon called it it.

"The magic of a play doesn't come from our ideas," he said. "It doesn't come from memorizing lines. The magic is when you get up and add physicality. As a director, I want to empower actors to make choices authentic to themselves. I want the play to come off the page."

To Mr. Leon, plays that belong off the page and on the stage include works from every multicultural source. Raised by his grandmother in rural Florida and later bused to an affluent white high school, Mr. Leon has deeply held, personal roots in the black American experience.

#### TRYING TO DIVERSIFY

In 1990, when he was appointed artistic director of the Alliance Theater, he was one of only three black artistic directors of a major American regional theater. (The other two were Ricardo Khan at Crossroads Theatre Company in New Brunswick, NJ, and Lloyd Richards, who retired from the Yale Repertory Theater in 1991.) His goals of diversifying the actors, audience and Alliance board were met with

ambivalence by both white and black Atlantans.

Since then, Mr. Leon has received kudos from the arts and theater worlds. Before receiving the MIT award, he won the 1993-94 Connecticut Critic Circle Award for Best Director, a Morehouse College Candle in the Dark Award and a Bronze Jubilee Award for Theatre Excellence. He has also diversified the staff, board and program at the Alliance Theater.

Switching seamlessly from conversing to directing at last week's MIT class, Mr. Leon watched intently as three students silently performed a peasant-beating scene from Nothing Sacred. In no time, he was back with the magic, the real engine of drama, the body in space.

"Speed it up, speed it all up," he encouraged the trio. "And be the motorcycle. Don't be the person riding the motorcycle. Be the motorcycle!"

## Institute Arts

For more arts-related information call the 24-hour hotline at 253-ARTS or consult the World Wide Web at <a href="http://web.mit.edu/arts/www/">http://web.mit.edu/arts/www/>.</a>

#### ■ MUSIC

Chapel Concerts\*—Mar 20: Prof. Marcus Thompson, viola; John Gibbons, harpsichord.

Apr 3: "Danças Brasileiras - Choros, Sambas, e Valsas." Glorianne Collver-Jacobson (faculty, Music Dept., Wellesley College) performs works for solo guitar by Villa Lobos, Garoto, Savio, Powell, and Reis. 12noon, Chapel. More info: x3-2906.

Advanced Music Performance (AMP)\*—Mar 19: Susan Shi '97, piano. Haydn, Schumann and Schoenberg. Apr 2: Gary Crichlow (G), tenor/countertenor. Works by Handel, Wolf, Mompou, Vivaldi. Youssef Marzouk '97, piano. Both shows at 5pm, Killian Hall. More info: x3-2826.

North Indian Classical Music\*—Mar 21. MITHAS with Bharati Nanavati, khyal (vocal) and Sunil Banerjee, tabla. \$15, \$12, \$10 at the door only, \$2 discount for MIT students; general admission. 8pm, Killian Hall. More info: x8-7971.

Deadline for Entries for MIT Symphony Concerto Competition\*—Apr 1: One winner will be selected from the MIT/Wellesley student body to perform a concerto with the orchestra during the 1997-98 season. Soloists who have already performed with the MITSO are not eligible. All concerto repertoire will be considered. The entire work must be prepared for the audition. Accompanists are not necessary. Applications may be picked up at the Concerts Office, Rm 14N-207, or downloaded from <a href="http://web.mit.edu/mta/www/music/symphony/concertoform.html">http://web.mit.edu/mta/www/music/symphony/concertoform.html</a>>. Auditions will be held on Sunday, May 4, from 9am-3pm in Kresge Aud. More info: x3-2826.

Endellion String Quartet\*—Apr 6: Haydn's Op. 54, No. 3; Britten's Quartet #1 in D;

Schumann's Quartet in A minor. 4pm, Kresge Auditorium. More info: x3-2906.

MITCAN: Music of Africa Performance Class.\*\*—Directed/taught by Prof. James Makubuya. Ensemble class offers hands-on practice and performance experience on various traditional African musical instruments. This semester, the MITCAN expands its syllabus of activities to Kenyan and South African music and dances as it continues with items from Uganda. No previous experience is required. Meets Thursdays, 7-9:30pm, Kresge Reh Rm A. More info: x3-4964 or <a href="makubuya@mit.edu">makubuya@mit.edu</a>>.

MIT Guild of Bell Ringers\*—Change ringing on hand bells. Beginners always welcome. Will also ring for occasions. Meets Mondays, 6:30pm, 2nd floor balcony of Lobby 7. More info: Ken, 784-6114

#### ■ DANCE

MIT Folkdance Club\*—Sun—International Dancing: Early teaching for beginners—7-8pm; Teaching & requests—8-11pm, Sala de Puerto Rico or Lobby 13. Mar 23: International Folk Dance w/live music by Cambridge Folk Orchestra, 7-11pm, Student Center Sala de Puerto Rico. Tues—Advanced Balkan Dancing: Regular teaching & requests, 8-11pm, Student Ctr 4th floor. MIT/Wellesley students free, 25¢ others. Call x3-FOLK or e-mail <fdc-request@mit.edu> for locations on a given week.

#### ■ THEATER

King John\*—March 20-22. Shakespeare Ensemble production directed by visiting lecturer and drama coach, Tina Packer of Shakespeare & Co. \$7, \$5 students/seniors, \$1 off/ticket for groups of 10 or more. 8pm, Student Ctr Sala de Puerto Rico. x3-2903 or e-mail<ensemble@mit.edu>.

#### ■ READINGS

Martini-In-Transit Reading\*—March 20. Poets Rosanne Wasserman and Tomoyuki Iino read from their latest collections of poetry. 7:30pm, Bartos Theater (E15). x3-6475

#### ■ EXHIBITS

List Visual Arts Center (E15)\*-Joseph Kosuth-Re-Defining the Context of Art: 1968-97. Kosuth, a key figure in the redefinition of the art object that took place during the 1960s and 1970s with the formulation of Conceptual art, will site this new project at the List Visual Arts Center and venues around Cambridge and Boston. Jill Reynolds, Artistin-Residence: The Shape of Breath, Seattlebased artist Jill Reynolds will create this new project employing an artistic vocabulary that includes stone, blown-glass, graphite, paper, water, breath, leaves and other natural and found objects. PORT: Navigating Digital Culture. This thematic exhibition organized by the New York-based collaborative artnetweb, will present the work of artists who use the internet as their medium. Schedules and descriptions: <a href="http://artnetweb.com/">http://artnetweb.com/</a> port>. All shows run through March 29. Hours: Tues-Thurs & Weekends 12-6pm; Fri 12-8pm; closed holidays. Curatorial Office Hours-Meet the curatorial staff for informal discussions-Weds, 12:30-1:30pm. x3-4680

MIT Museum (N52)\*—Gestural Engineering:
The Sculpture of Arthur Ganson. Permanent installation of Ganson's whimsical kinetic sculptures address emotional and philosophical issues between the animate and inanimate, human and machine. Ganson is a former MIT Artist-in-Residence. Apr 2: Gallery talk by Arthur Ganson, 12pm. Ongoing. What's So Funny About Science? Exhibition of cartoons of New Yorker science cartoonist Sidney Harris. Through May 31. Maps from the Age of Allases. Rare maps from the MIT Museum's Hart Nautical Collections. Through Mar 31.

Ongoing: LightForest: The Holographic Rainforest. Holography: Artists and Inventors; MIT Hall of Hacks; Light Sculptures by Bill Parker; Math-in-3D: Geometric Sculptures by Morton C. Bradley, Jr.; MathSpace. 265 Mass Ave. Tues-Fri 10-5, Weekends 1-5. More info: x3-4444.

Compton Gallery—On the Surface of Things:
An Exhibition of Images in Science and Engineering Photographs. Photographs by science photographer Felice Frankel, who has been a visiting lecturer and artist-in-residence at the Edgerton Center since 1994, communicate recent research in a variety of disciplines at MIT and other institutions. See calendar listing for Apr 2, page 4, for talk by Felice Frankel. Feb 14-June 27. MIT Museum's Compton Gallery. Weekdays: 9-5. x3-4444

Hart Nautical Gallery\*—Ships for Victory: American Shipbuilding's Finest Hour. Shipbuilding production during World War II. Permanent Exhibition of MIT Museum's Ship Models. Ongoing. Weekdays 9-5pm. More info: x3-5942.

The Dean's Gallery—New England Landscapes:
An Interpretation in Pastel. by Teresa M.
McCue. Mar 20: Opening Reception, 4:306pm. The Dean's Gallery, Sloan School of
Management, E52-466. Show runs through
April 30. Weekdays 9-5pm. x3-9455 or <a href="http://web.mit.edu/deans-gallery/www/">http://web.mit.edu/deans-gallery/www/</a>.

Wolk Gallery—A Sense of Place, A Sense of Time. An Exhibition of Drawings by J.B. Jackson. John Brinckerhoff Jackson (1909) 1996), was America's leading authority on vernacular landscape; he founded and published Landscape magazine from 1951-1968 and taught landscape and environmental history at Harvard, MIT and the Univ. of CA/Berkeley. Through April 1. The Wolk Gallery (Rm 7-338). Mon-Fri, 9-5pm. x8-9106

A Message in Many Bottles: Sculpture and Informatics. An installation by Biology Research Affiliate Joe Davis presented in memory of Dr. Carl Sagan. Through March 24. Weekdays 9am-6:30pm, Lobby 68 (Dept of Biology). x3-4710

ORIZURU: Japanese Paper Cranes. Folded sculptures by Prof Akira Naito, Professor Emeritus of Nihon University, whose January visit to MIT was sponsored by individuals in Mechanical Engineering, the MIT Japan Program and Foreign Languages and Literatures. Exhibit is up indefinitely in the hallway gallery outside of Rm 4-405. More info: x8-7940 or e-mail <lavin@mit.edu>. The MIT community is welcome to attend meetings of the MIT Origami Club. E-mail <origamirequest@mit.edu> or see the Web at <a href="https://web.mit.edu/origami/">https://web.mit.edu/origami/>.web.mit.edu/origami/orig

Women's Studies. Permanent exhibition of archival photographs documenting the role of women at MIT over the decades. Rm 14E-316. More info: x3-8844.

#### ■ OTHER

Harold and Arlene Schnitzer Prize in the Visual Arts Entries Due-April 2. Three prizes will be awarded to registered MIT students based on a body of work: first prize is \$1,000; second prize is \$600; third prize is \$400. Artists are required to submit at least three pieces of original work or one piece of original work and visual representations of other originals (to be available for later viewing). The artist must also submit a written statement by the artist concerning his/her creative interest as it pertains to the works and art in general. Applications available at the Student Art Association (W20-429), Campus Activities Complex (W20-500), Office of the Arts (E15-205). 9am-4pm, Rm W20-429. x3-7019

Applications for Wiesner Student Art Gallery\*\*—All students welcome to apply to put up an exhibit. Information: Ted Johnson, Campus Activities Complex, Rm W20-500. x3-3913

## Distance-learning facility dedicated

■ By Robert J. Sales **News Office** 

Video equipment donated by longtime lecturer and MIT alumnus Robert H. Rines that transforms Edgerton Hall into a state-of-the-art facility for remote education was dedicated last week.

Mr. Rines (SB '42, physics) made a sizable contribution to purchase the advanced technology equipment for the 300-seat lecture hall. Three remote control cameras concealed in the rear wall face the rostrum, and another beof the room focuses on the audience. The sensitive cameras provide excellent picture quality without requiring additional TV lighting.

In addition, equipment to operate the cameras, preview pictures and make broadcast-quality videotape has been installed. Seven "shotgun" microphones built into the ceiling can pick up questions from the audience.

A lecturer in the Department of Electrical Engineering and Computer Science (EECS) since 1962, Mr. Rines teaches the popular Inventions and

sponsor the multidisciplinary NSBRI.

Following a 60-day cooperative agree-

ment for detailed definition, a five-

year contract with three five-year ex-

tensions will be awarded on June 1.

The total value of the 20-year agree-

ment is approximately \$145 million,

the NSBRI will focus on developing a

partnership between NASA, the scientific

community and industry as their efforts relate to human development, exploration

The NSBRI will function as a geo-

graphically distributed consortium us-

ing computer links. By expanding re-

search already in progress on the MIT

campus and elsewhere, the NSBRI will

offer opportunities for faculty sabbati-

cals at the Johnson Space Center; for

NASA scientists to visit MIT, and for

graduate training in biomedical re-

and long-term presence in space.

In addition to its twofold mission,

beginning at \$10 million per year.

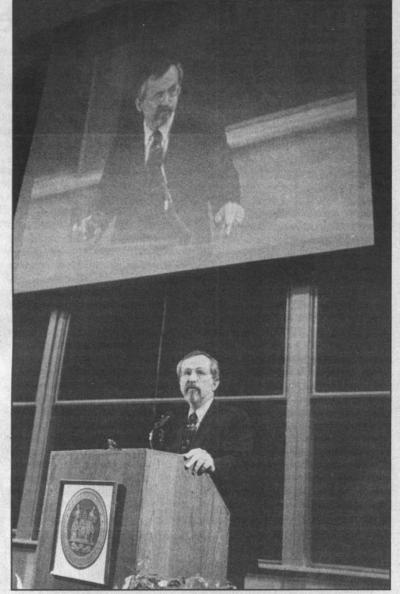
hind the projection screen at the front Patents elective. Mr. Rines, a graduate of Georgetown University Law School, is a partner in the Boston law firm Rines and Rines, and he founded the Franklin Pierce Law Center in Concord, NH, which specializes in the relationship among science, technology and

About 130 friends, family and colleagues of Mr. Rines attended the dedication at Edgerton Hall last Wednesday (March 12), among them Professor Paul L. Penfield, head of EECS; Professor Richard C. Larson, director of the Center for Advanced Educational Services; and Professor Paul E. Gray, chairman of the Corporation.

Professor Gray read a proclamation that saluted Mr. Rines's accomplishments, which include more than 60 patents for inventions such as highdefinition radar used in the Gulf War and sonic systems that helped locate the Bismarck and the Titanic. He also cited Mr. Rines for co-founding the Academy for Applied Science, which fosters interest in science and technology among young people and sponsors scientific projects like the Loch Ness expeditions.

Referring to his MIT teaching career, Professor Gray told Mr. Rines, "You have enabled generations of MIT students to understand and appreciate the inventive process, and in doing so, have inspired many to try their hands at both invention and company forma-

Beyond that, Professor Gray said, "You have been instrumental in converting Edgerton Hall into one of the most technologically advanced facilities of its kind, invaluable not only for its on-site instruction but also for creative interactions between MIT-based groups and their counterparts thousands of miles away."



Richard C. Larson, director of the Center for Advanced Educational Services, speaks below a video screen—part of a newly installed system for remote education in Edgerton Hall—at a gathering to dedicate the system funded by EECS lecturer and alumnus Robert Rines.

**Photo by Donna Coveney** 

## Young to head new space biomedical research institute

(continued from page 1)

Professor Young cited in particular the work of two MIT biomedical research scientists: Dr. Charles M. Oman, a senior lecturer in the Department of Aeronautics and Astronautics, director of the Man-Vehicle Laboratory and a specialist in neurovestibular adaptation, and Dr. Richard J. Cohen, an HST professor, director of the Biomedical Engineering Center and an expert in cardiovascular alterations. Both scientists will be team leaders for the NSBRI research consortium.

"This is an effort to try to enhance the quality and intensity of space life-sciences research," said Dr. Bobby R. Alford, chairman of the board of directors of the new space institute and dean of medicine at Baylor College of Medicine.

The NSBRI consortium will be led by the Baylor College of Medicine. Other consortium members are MIT, Harvard Medical School, Johns Hopkins University Medical School and Applied Physics Laboratory, Morehouse School of Medicine, Rice University and Texas A&M University

"We expect to have close collaboration among the consortium members. Now we can use the first-rate work already being done by universities with NIH-supported work and direct its application to space problems," Professor Young said.

"The Institute is a great opportunity to allow space life sciences to reach its full potential," he added. "We have a lot of homework to do to send people to

The Johnson Space Center will

Vincent Vitto of Lincoln Lab to be Draper president/CEO Vincent Vitto, an assistant directhe Radar Systems Group (1979) and as

tor of Lincoln Laboratory, was elected as the new president and CEO of the Charles Stark Draper Laboratory, Inc. Mr. Vitto will assume his new position on July 1, when current president and CEO Ralph Jacobson retires. The announcement was made at the March 5 meeting of Draper's board of

During his 32 years at Lincoln Laboratory, Mr. Vitto served as assistant leader of

leader of the Radar Imaging Techniques Group(1982). Healso led the Laboratory's

workintechnology development for space-based radar systems for many Mr. Vitto be-

came associate head of the Aerospace Division in 1984 and moved on to head the Communications Division in 1988.

He assumed his current position of assistant director for Surface Surveillance and Communications programs

Mr. Vitto serves as a member of the Naval Studies Board of the National Research Council and has been chairman of its Space Panel. He is a member of the Air Force Scientific Advisory Board and has been a member and chairman of several Defense Science

Board panels. "It's an exciting opportunity," Mr. Vitto said of his appointment. "I'll be relying on the breadth of experience I acquired at Lincoln and on my involvement in many defense planning studies to extend the technical expertise at Draper to both emerging national defense problems and industrial markets.

Sarah Wright

#### Partner-company offices closed April 4

he VWR Scientific stockroom and the offices for partner companies BOC Gases, Office Depot and VWR will be completely closed for business on Friday, April 4 as they move from Building 18 to Building

The new location for the VWR stockroom will be Rm 56-070; business offices for the three partner companies will be in Rm 56-022. All will reopen for business on Monday, April 7. Their phone numbers will not change.

Researchers, technicians and graduate students are the primary customers for the stockroom. They should anticipate their needs for laboratory supplies early during the week of March 31 because there will be no emergency sales on April 4.



PLEASE COME TO

AN MIT COMMUNITY RECEPTION

TO CELEBRATE AND PAY TRIBUTE

TO PAUL AND PRISCILLA GRAY

AS PAUL COMPLETES

HIS SERVICE AS CHAIRMAN

OF THE MIT CORPORATION

Tuesday

8 April 1997

4:30 - 6:30 PM

Remarks at 5:30 PM

Walker Memorial

## Use proper address for incoming packages

ailing address, the shipping address and the actual street address—and there are also several methods by which packages are delivered to MIT addressees. Mail Services is advising package recipients to use the correct address form to avoid delays in delivery.

For mail received via the US Postal Service, the proper mailing address is:

> Attn: Professor Doe/Department Name Building-room number Massachusetts Institute of Technology

77 Massachusetts Av Cambridge MA 02139-4307

Note that the last two lines should always consist of the street address and the city, state and ZIP. Do not put any information below these two lines.

UPS ground service packages are delivered to three receiving rooms on campus:

For Buildings 1, 3, 4, 5, 7, 9, 10, 11, 12, 13, 17, 24, 33, 35, 37, 39, 41, 42:

60 Vassar St

Cambridge MA 02139

For Buildings 2, 6, 8, 14, 16, 18, 20, 26, 34, 36, 38, 44, 45, 48, 54, 56, 66, 68, E40, E51, E52, E53:

18 Vassar St Cambridge MA 02139

ost MIT offices have not one but three addresses— For Buildings E15, E17, E18, E19, E23, E25:

Cambridge MA 02142

If your building is not one of those listed above, UPS will deliver directly to your street address. For example, all buildings in the northeast section of campus that begin with the designation NE receive delivery directly from

For express couriers who deliver directly to offices, such as DHL, Federal Express or UPS Air Service, use your building's street address.

Using the above guidelines, residents of Building 9, room 123 should have packages addressed to:

77 Massachusetts Av

**UPS** ground service:

9-123

60 Vassar St

DHL, Federal Express or UPS air service:

9-123 105 Massachusetts Avenue

Building and room number should always be included, regardless of the particular address you're using. Anyone with questions may call Mail Services at x3-6000.