

NUMBER 19 VOLUME 38 .

WEDNESDAY . JANUARY 12, 1994



CIRCLE IN A SQUARE—An unknown early-morning artist made this spiral pattern in Killian Court in newly fallen snow. While viewers from offices in higher floors around the court could enjoy the view, the passing jogger didn't have the same **Photo by Donna Coveney** vantage point.

RADIATION

MIT Reviews Fernald Nutrition Studies; Vest Expresses Concern

IT has released details of an in M ternal review on the four published nutrition studies involving iron and calcium which were carried out by the late MIT Professor of Nutrition Robert S. Harris and others

MIT President Charles M. Vest has expressed his concern over the apparent lack of fully informed consent involved in nutritional research conducted by MIT at the Walter E. Fernald State School in Waltham, MA four decades

The research used minute amounts of radioactive iron and calcium as diagnostic tracers of the digestive process. The exposures to radiation were 30 percent to 99 percent below the much more stringent limits that are in effect today.

At the time, the custom was that the

patients' medical doctors or clinicians were the ones who communicated with the patients or the subjects of research. In the late 1960s and early 1970s, the federal government assigned to the US research institutions the responsibility for obtaining the consent of research

According to records reviewed to date, Fernald school authorities informed the parents of the research. It is not clear, however, whether those authorities said that the studies involved the use of low levels of radioactive tracers of iron and calcium.

Dr. Vest said Friday, "I was sorry to hear that at least some of the young people who participated in this research and their parents apparently were unaware that the study involved radioactive tracers. People should not unknowingly become the subjects of research studies of this type. We have had in place for more than two decades at MIT numerous safeguards and approval processes that assure informed consent of human subjects of any research.

"It is important to recognize that the purpose of these studies was to im-(continued on page 4)

INNOVATION FOCUS

Lemelson Prize, Chair Established at MIT

Jerome H. Lemeison, America erome H. Lemelson, America's most lished at MIT the \$500,000 Lemelson-MIT Prize, the nation's largest prize for innovation and invention.

The prize is one element of a fourpart, multimillion dollar program designed to foster innovation that will be administered by the internationally respected MIT economist, Lester C. Thurow, who has been named the first Jerome and Dorothy Lemelson Professor at MIT.

The announcements of the Lemelson-MIT Prize and of the establishment of the Jerome and Dorothy Lemelson Chair were made in New York Monday, Jan. 10, at a luncheon attended by Mr. Lemelson, MIT President Charles M. Vest, Provost Mark S. Wrighton, Sloan School Dean Glenn Urban and other MIT faculty, administrators, alumni/ae and supporters.

Mr. Lemelson is an independent inventor who holds approximately 500 patents, the most of any living American, and the fourth highest in the nation's history after Thomas Edison, MIT's Elihu Thomson and the late Edwin Land, founder of Polaroid and a Visiting Institute Professor at MIT.

The Lemelson Professorship is intended to foster innovation in the United States and to motivate students to pursue careers in invention and innovation.

"Innovation launched America as an industrial power," Dr. Vest said. "Rekindling the spirit of innovation is an essential part of America's quest to remain an economic superpower. This chair will give MIT the opportunity to spearhead initiatives that will help to foster inventions and innovations that clearly provide real-world benefits. Professor Thurow can provide extraordinary leadership in this regard."

The chair is part of MIT's longstanding commitment to fostering the spirit and development of technological innovation. A recent program with this goal, developed by Professor Thurow while dean of the Sloan School, is Regaining the Productive Edge (REPE). REPE will serve as a stimulus and support for MIT's students who have chosen innovation as a career path. Dr. Thurow established REPE, an outgrowth of MIT's report, Made In America, to study issues surrounding American productivity and competitiveness. REPE's goals include designing workable solutions and offering concrete policy recommendations as well as developing new strategies in order to increase America's productivity.

The Lemelson gift to MIT is part of a national program the inventor has established to spur innovation and invention in America in cooperation with prestigious institutions of higher learning. Late last year, he began a \$3.2 million series of initiatives at Hampshire College. Hampshire is one of the nation's most distinctive liberal arts colleges.

In all, Mr. Lemelson has committed \$10 million through the Lemelson National Program in Invention, Innovation and Creativity to stimulate the development of new inventions and innovative technologies, establish new businesses and encourage the nation's young to enter careers in invention and innovation.

"America's greatest natural resource remains American ingenuity," Mr. Lemelson said at the luncheon. Mr. Lemelson holds patents for inventions such as components of industrial ro-(continued on page 4)

RENEWED COMMITMENT

Affirmative Action Progress Noted

President Charles M. Vest, noting some progress in increasing diversity among the administrative staff, said much remains to be done. He called for a continued commitment to affirmative action in employment and education "to ensure equality of opportunity... at the Institute."

In a statement issued in anticipation of the Martin Luther King holiday and on the 20th anniversary of MIT's celebration of Dr. King's life, President Vest said the first requirement is to create on the campus "an atmosphere

of civility, collegiality, and mutual respect-one that stimulates and supports all of our faculty, students and staff." (See accompanying statement).

Dr. Vest has often said that one can see the changing demographic face of America among MIT students, but not as much among staff and faculty. He has noted that some progress is being made, however, citing such areas as the Office of Undergraduate Education and

(continued on page 4)

1,500 EXPECTED

Black Women's Conference **Draws Large Registration**

R egistration for January 13-15 national conference, Black Women in the Academy: Defending our Name, 1894-1994, has soared past the 1,300

Plenary sessions will be held at Kresge Auditorium where the three keynote speakers-Lani Guinier (10:30am Thursday, Jan. 13); Johnnetta Cole (5pm Friday, Jan. 14); and Angela Davis (2pm Saturday, Jan. 15)will deliver their remarks. Every session is expected to have a capacity audience. They can be seen on closedcircuit television in Rms. 10-250, 34-101, and 9-150.

Several workshops and panel sessions will be held at various locations on campus on Thursday, Friday and Saturday.

The executive committee organizing the conference consists of Professors Robin Kilson and Evelynn Hammonds of MIT and Florence Ladd of Radcliffe College's Bunting Institute.

Serving on the advisory committee are MIT President Charles M. Vest and his fellow college presidents Linda Wilson of Radcliffe, Neil Rudenstine of Harvard, Diana Chapman Walsh of Wellesley, Nan Keohane of Duke and Johnnetta Cole of Spelman. Other members are Shirley Malcom, AAAS; Sara Lawrence-Lightfoot, Harvard School of Education; Nell I. Painter, Princeton; Nellie Y. McKay, University of Wisconsin, Madison; Darlene Clark Hine, Michigan State; Henry Louis Gates Jr., Harvard, and Cornel West, Harvard.

The program notes that the conference is dedicated to the memory of Phyllis Wallace, professor emerita, MIT Sloan School of Management; Sylvia Boone, Yale, and Audre Lorde, Hunter College, "and other women of color who have labored in the academy and helped to prepare the way for the present generation."

Statement on MIT's Commitment To Affirmative Action/Equal **Employment Opportunity**

These are times of rapid change in our society. We at MIT respond to change by generating or incorporating new ideas and new knowledge in our professional and scholarly lives. We must become equally adept at incorporating cultural and demographic change into our life as an academic community if we are to maintain our high quality and our relevance to the world. To do this, we must recognize and draw on the full range of talents brought to us by men and women from many different racial, cultural, economic and ethnic backgrounds. Our greatest challenge in this regard is to reduce the under-representation and underutilization of minorities at MIT.

This requires, first, that we work to create at MIT an atmosphere of civility, collegiality, and mutual respect-one that stimulates and supports all of our faculty, students and

Second, we must take renewed, affirmative action to ensure equality of opportunity in education and employment at the Institute. Specifically, thoughtful and effective recruitment and career development of minorities for positions at all levels is necessary to ensure their greater and more effective participation in MIT's workforce.

MIT has always been a place where people with exceptional talents and intellect have gathered to work, to explore, to learn and to teach. Success in these efforts will enable us not only to reflect the changing face of America, but to draw on the full range of talents needed to meet the challenges of a changing world.

Charles M. Vest

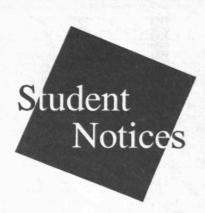
IN BRIEF

GIVE BLOOD

The Red Cross has announced that blood inventories in the area are unusually low right now because of the recent stormy weather. You can help out by donating a pint at TCA's IAP Blood Drive today (Wednesday, Jan. 12), 10am-4pm in the Sala de Puerto Rico. No appointment is necessary.

NO PAPER

Tech Talk will not be published next week because of the Martin Luther King Day holiday observance. Regular publication will resume January 26.



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

***-Open to members only

ANNOUNCEMENTS

Open House, Course Evaluation Guide**-Jan 12: Meet, eat, and drink. Sponsored by the Office of the Dean for Undergraduate Education and Student Affairs, 5pm, Rm W20-401. More info: x3-9784.

VI-A Orientation Lecture**-Feb 2: For all Course VI sophomores interested in applying for the EECS Dept's VI-A Internship Pro gram, 3pm, Rm 34-101. Sponsored by the VI-A Internship Office, EECS.

Lab Animal Training Seminar ** - Feb 8: Sponsored by the Committee on Animal Care and the Department of Comparative Medicine, 1-5pm, Whitehead Auditorium, 9 Cambridge Center. For agenda and more information contact Mozhdeh Zahedi, x3-9436.

A Safe Ride**-Call 253-2997 for a free ride within MIT boundaries. Service operates Sun-Wed 6pm-3am; Thurs-Sat 6pm-4am. Guide to shuttle stops available.

Free Museum of Science Admission for MIT Students-With MIT student ID, provided by Mass Beta chapter of Tau Beta Pi, the National Engineering Honor Society. Reduced admission to special exhibits.

Language Conversation Exchange**-Internationals and Americans are invited to participate in this program which matches persons interested in practicing a language and getting to know someone from anoth country. Presently, there is a need for English partners to fill continued requests of internationals wanting to practice and improve their English. Persons speaking the following languages waiting for partners include: Japanese, Chinese, Korean, and Russian. There is also a need for more English speakers wanting to practice these languages Sponsored by the Wives' Group, call x3-1614 for more information

Arts Hotline-Recorded information on all art events at MIT may be obtained by dialing x3-ARTS. Material is updated every Monday

■ RELIGIOUS ACTIVITIES

The Chapel is open for private meditation 7am-11pm daily.

Baptist Student Fellowship* - Meets every Tuesday, 5:15pm supper in Bldg W2A; 6pm large group in MIT Chapel. Sponsored by the MIT Baptist Chaplaincy (Baptist Campus Ministry). More info: x3-2328.

Morning Bible Studies**-Fri, 7:30-8:30am, L-217. Ed Bayliss, x3456 Linc.

Tech Catholic Community**—Regular weekday mass Tues & Thurs 5:05pm, Friday 12:05pm, Saturday 5pm, Sunday 10am & 5pm. Call x3-2981.

Graduate Christian Fellowship**-We invite you to join us. Open to believers and seekers, GCF is a group of graduate students, faculty, and staff who desire to know God better and reflect the love and presence of Jesus Christ.

Weekly meetings in Student Center, DR 1&2, Thursdays at 6pm. We also have Bible studies and a Faith & Technology Roundtable. Info: Andrew Parris x3-2319.

Christian Science Organization**-Meetings are Thursdays at 7:30pm in the Chapel. We'll share thoughts about God, hear testimonies of Christian healing and read from the Bible. All are welcome! Call x3-8797 or <lnorford@eagle.mit.edu> for further information.

Friends Worship Group*—Under the care of Friends Meeting at Cambridge, meets Wednesdays during the academic year in Rm 3-137C. Gather at 5pm for unprogrammed ("silent") worship, 5:15-5:45pm. Begins January 19.

MIT Hillel*-More info: x3-2982.

MIT Korean Baptist Student Koinonia (KBSK)**—Friday Night Bible Study and Fellowship 7-8:30pm, Private Dining Room #3, 3rd floor of Student Center. Everyone is welcome, refreshments provided. For more information contact Chris Pak x3-9342 or

Lutheran-Episcopal Ministry at MIT*-Wednesday worship, 5:10pm, MIT Chapel, followed by supper and conversation across the street at 312 Memorial Drive. Contact Rev. Susan P. Thomas x3-2325 or Rev. Scott Paradise x3-2983.

Lincoln Laboratory Noon Bible Studies*—Tues & Thurs, Kiln Brook III, Rm 239. Annie Lescard, x2899 Linc.

MIT Muslim Students Association*-5 daily prayers in the prayer room, Ashdown House (Bldg W-1) west bsmt. Friday congregation: 1:10-1:45pm in Ashdown House (Bldg W-1) west bsmt. Info: x8-9755.

MIT Orthodox Christian Fellowship**—Meets every Wednesday at 5:30pm in Private Dining Rm #1 in the Student Ctr for dinner/ fellowship/discussion followed by Vespers (evening prayer) in the MIT Chapel. Open to Eastern Orthodox Christians and those interested in learning about traditional Christian Faith. Info: Mike Decerbo, Dorm x5-7569.

MIT Vedanta Society*-Meditation and discourse on the Bhagavad Gita with Swami Sarvagatananda, senior monk of the Ramakrishna Order of India. Sponsored by the MIT Vedanta Society and MIT Chap laincy, Fridays at 5:15pm in the MIT Chapel

■ OPPORTUNITIES

1994 Summer Intensive Language Study Fellowships**-Available under the Foreign Language and Area Studies (FLAS) Fellowship Program of the US Dept. of Edcuation Open to MIT masters & doctoral students in the social sciences who will be studying at an approved insitution (i.e., Middlebury, Norwich or other major Title VI area centers in the US). Support includes full or partial pay ment of tuition and a stipend of \$1500 for the summer term. For application forms and full information contact Liz Leeds, Center for International Studies, Rm E38-652, x3-9861. Application deadline: March 11, 1994.

1994-95 Academic Year Fellowships ** - Available under the Foreign Language and Area Studies (FLAS) Fellowship Program of the US Dept. of Edcuation. Open to MIT doctoral students in the social sciences who will be full-time students and enrolled in language training courses that are essential to their doctoral programs. Support includes a sti pend of \$8000 for the academic year. Awards may be used in conjunction with RAs, TAs and other financial aid. For application forms and full information contact Liz Leeds, Center for International Studies, Rm E38-652, x3-9861. Application deadline: March 11, 1994.

■ INTERNATIONAL

MIT Language Conversation Exchange**—This service assists members of the MIT community to practice a language with a native speaker and get to know someone from another country. Call x3-1614 for more information.

Crimewatch

The following incidents were reported to the MIT Campus Police Department between January 1-6, 1994:

Jan 1: Westgate, bike stolen, \$175; Hayward open lot, '85 Toyota stolen.

Jan 2: Westgate, witnesses state a male broke into the variety store and was seen fleeing the area in an older Mercury Cougar with various items totaling \$2,375.

Jan 3: Bexley, Super Nintendo games stolen, \$300; Bldg 8, vandalism.

Jan 4: Bldg 8, male arrested for trespassing; Hayden Library, male exposed

Jan 5: Bldg 16, camera stolen, \$555; Bldg N42, suspicious activity; Walker, suspicious activity.

Jan 6: Bldg NE43, wallet stolen. \$45; Albany Garage, '86 Chevy Blazer stolen; 243 parking lot, Toyota broken into and tire and jack stolen, \$120.



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.

INSTRUCTIONS: Ads are limited to one (of about 30 words) per issue and may not be repeated in successive issues. All must be accompanied by full name and extension. Persons who have no extensions or who wish to list only their home telephones, must come in person to Rm 5-111 to present Institute identification. Ads using extensions may be sent via Institute mail. Ads are not accepted over the telephone. Faxes are not accepted.

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

Crosswoven Oriental design area rug, 8x11.5, 100% polypropylene pile, red/blue/rust/white/ beige, dry cleaned to sell, pd \$250, will sell for \$125, Call 643-4176.

George Washington bedspread, F-sz. 96"x110". natural color, turn-of-century design, pure cotton, machine wash/dry, made in USA by Bates, nvr used, \$45. Rosalie 776-3748.

All for \$10/ea: Toddler Stride Rite rubber boots, hardly worn, sz9; Disney Store toddlerraincoat, Disney's Pluto character, sz 3T; baby comforter that zip pers into a bunting. Cheryl x3-2848 or 438-1908.

Walnut executive desk, 2 side drawers & 1 top drawer, glass top, \$75 or bst. Sue x3-0423.

King-sz futon & frame, \$100. Call 225-9611.

Ski rack & roof rack for Subaru wagon, used 1 season, pd\$120, bst offer; also gas can, jumper cables. Keoki x3-5487 or 437-1521.

Queen-sz almost new waveless waterbed w/tubes \$300; F-sz wooden headbd & steel frame, \$50; microwave, \$40. Prices negot. Call x3-8608.

IBM Selectric II typewriter, gd cond, \$75. Jean, Linc x4516.

■ VEHICLES

Two cars: 1986 Hyundai Excel hatchbk, 5-dr, AM/FM/cass, a/c, auto, no rust, 43K, \$2900. 1991 Subaru Loyale sta wgn, auto, a/c, ext warr, exc cond, 34K, \$9600. Paul x3-3326.

MIT-Japan Program. A unique opportunity for MIT science, technology and management students to spend a year in Japan working at a major Japanese company or laboratory. Training, placement, travel and living expenses are covered by the Program. Call Patricia Gercik x3-3142, Rm E38-754.

■ VOLUNTEERS

The MIT Public Service Center has compiled the following volunteer opportunies.

Museum of Science. Volunteers are needed to help young people explore hands-on science, explain the human body, and assist with birthday parties. Call Linda or Mary Alice at 589-

La Alianza Hispana. Help someone learn English, math, Spanish reading and writing, or basic computer literacy. Tutors are needed to work one-on-one with low-literacy Spanishspeaking adults. A training session is available for prospective tutors. For more informa tion please call Jonathan Leaning at 427-7175 ext. 275 or 250.

Friend-to-Friend Volunteer. Elizabeth Peabody House is looking for volunteers who are inter ested in participating in the Friend-to-Friend program, which matches adult volunteers with children ages seven through 14 who are in need of some extra attention. This is a unique opportunity for children to gain the support of a concerned and caring adult role model who is willing to spend 2-4 hours week with the child. For more information, please call Ann Fraser at 623-5510.

Bridge Over Troubled Waters. Bridge Over Troubled Waters is dedicated to serving runaways and homeless youth and offers them

Search Committee Named To Identify New OSP Head

Financial Operations Vice President James J. Culliton has appointed a search committee to recommend a successor to George H. Dummer, director of the MIT Office of Sponsored Programs since 1971. Mr. Dummer has indicated his desire to step down from that position.

Mr. Dummer said he believes it is time for new leadership in the management of the OSP. After his successor is identified, he will devote his efforts to the problems and challenges being created by the changing research environ-

The search committee is headed by Professor Kim Vandiver of the Department of Ocean Engineering. Other members are Professor Jonathan Allen, director of the Research Laboratory of Electronics; Jean Dzengeleski, special project director, Office of the Provost: Kenneth L. Hewitt, MIT senior personnel officer; Philip J. Keohan, comptroller of MIT; Professor Monty Krieger of the Department of Biology; Albert Vezza, senior research scientist and associate director, Laboratory for Computer Science; Bruce K. Willard, chief financial officer, Lincoln Laboratory; and Charlene M. Placido, assistant to the vice president and dean for research.

The committee has established an e-mail address, <ospdir>, and invites members of the community to offer suggestions about the search.

Nominations Sought for Killian Award

Members of the community are reminded to submit soon any additional nominations for the 1994-95 James R. Killian Jr. Faculty Achievement Award.

The award was established "to recognize extraordinary professional accomplishments by full-time faculty members... and by so doing to honor the contributions made by Dr. Killian to the intellectual life of the Institute."

The award carries an honorarium of

stereo, exc cond, 78K hwy, \$5200. Call 617-

1990 Chevy Corsica, 4-dr compact sedan, like new both ext & int, auto, a/c, ps, pb, AM/FM

Arlington: spacious furn room in renovated sunny

Arlington Hts: Studio, furn, incl all utils, priv

Arlington Hts: room for rent, furn rm on bus line, ktchn privileges, share bath, \$90/wk. Call

Bartlett, NH: quiet chalet, privacy, vnr Attitash, Black,

Belmont: sunny 4BR, 2b furn hse avail for rent

Belmont: fully furn BR/study in priv home, Cushing Sq, shr bath, lt ktchn priv, linens, on transp, prkg

greenhse. Call x3-8504.

Cranmore, Wildcat, and the best touring center in

the East (Jackson), accommodates 6 people, wknds

or wks, v reasonable. Dave Hovey, Linc x4449.

during second semester, close to all schools &

T, off-st prkg for 2 cars, priv garden & htd

ail (\$35/mo), non-smkg, intl guests welcome,

\$495/mo incl all utils. Leova Wolf 484-6455.

Cambridge: Porter Sq/Avon Hill, sunny 1BR &

mo, incl all utils. Orianna 864-8566, x256.

study w/grt skyline vws, ww, avail now, \$1100/

the chance to build lives away from the streets.

Many of the young people at Bridge are able to overcome drug and alcohol addictions,

study for high school diplomas, and learn

how to be good parents. If you wish to volun-

teers time or money to help this program,

please call Barbara Whelan at 423-9575.

The UROP Office invites MIT and Wellesley stu-

dents to join with faculty members to pursue

research projects of mutual appeal. For detailed information on procedures, please read the par-

ticipation section of the 1993-1994 UROP Direc-

Spring proposals for direct UROP funding will be

accepted starting January 14, 1994. Please read

the Spring 1994 Guidelines available now for current information. Pertinent information is

posted regularly on the UROP bulletin boards in

the infinite corridor near Rm 3-103, and in the

Faculty supervisors wishing to have projects listed

may send brief descriptions to 20B-140, call x3-

Pre-UROP Training Workshops at the

Edgerton Center. Four workshops covering

basic skills that UROPers need: Jan 12: The

Nuts and Bolts of Being a UROPer, 12-2pm

in Rm 34-101; Jan 12-14: Preparation for a

Chemistry UROP (limited to 25 students), 3-

5pm in Rm 4-402; Jan 13: Hand Tools and

Machines (limited to 15 students), 12-2pm in 4-409, Jan 14: Electrical Tools and Devices

(limited to 15 students), 12-2pm in 4-409.

These workshops are open to all undergraduates. For more information and to preregister,

contact: Andrea McGimsey, Program Coordi-

nator, Rm 4-409, x3-4629, <acmcg@mit.edu>.

UROP Office, Rm 20B-140.

7306, or email to <urop@athena>.

tory, available now at 7-104 and 20B-140.

UROP

pets. Call x3-4251 or 646-1876.

ome nr T/bus avail for non-smkr, no lease,

\$360 (incl utils). Call x3-4533 or 646-9699.

bath, priv entrance, lrg deck, non-smkr, no

241-0991

HOUSING

\$8,000 and the recipient is invited to give one or more public lectures on some aspect of his or her work of interest to a wide audience outside the particular professional field.

Preliminary nominations, accompanied by only a few sentences of support, should be sent to Professor Stephen A. Benton, chairman of the Selection Committee, Rm E15-416, by Tuesday,

Cambridge: beaut furn apt, 1BR, roof deck, v quiet, perfect for single scholar or couple, 10 minute walk to Kendall Sq, \$825/mo. John

Watertown: lrg sunny room w/private bath, ktchn use, prkg, in contemporary home, nr T, 15 minutes from Hvd Sq, \$450 incl utils. Call 926-4138 4-9pm.

CHILD CARE

The Wives' Group needs baby-sitters for the coming academic semester, Wednesdays, 3-5pm, in the Student Center, Rm 491, pay \$6.75/hr. Susan x3-1614.

■ MISCELLANEOUS

Theoretical physicist, PhD, teaching/research experience, available to tutor students at all levels of physics (undergrad/grad), and college level math. Flex sched, \$25/hr. Call x3-

Want to learn Macintosh desktop publishing design? Private tutoring. Kate 617-666-5739.

MIT TECH TALK (USPS 002157)

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Recycled Pape



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

January 12 - 30

SPECIAL INTEREST

Martin Luther King, Jr. Celebration*—Jan 15: Journey Into a Dream: Musical Tribute to Martin Luther King. See Music section, below. Feb 11: 11:50am—Silent march to Kresge Auditorium. 12:10pm—Keynote address by Mrs. Coretta Scott King, Kresge Auditorium.

■ SEMINARS & LECTURES

WEDNESDAY, JANUARY 12

- Science Teaching Forum: What's There to Discuss?**—Daniel Goroff and Brian White. Part of the (Even) Better Teaching at MIT Series, sponsored by Undergraduate Academic Affairs and the Dean of the Graduate School. 2pm, Rm 16-134. More info: Peggy Enders, x3-3561.
- Replication Protein A*—Anindya Dutta, Brigham and Women's Hospital. 7:15pm, Auditorium, Whitehead Institute. More info: x8-5236.
- The SWI/SNF Protein Complex: Helping Activators Contend with Chromatin*—Craig Peterson, Univ. of Mass. Medical Center. 7:15pm, Auditorium, Whitehead Institute. More info: x8-5236.

THURSDAY, JANUARY 13

- The Neuroanatomy of the Hippocampal Fortures*—David Amaral, SUNY, Stonybrook. 12pm, Rm E25-401. More info: x3-5687.
- (A Little) Writing, Everyone? Ten Painless Gimmicks**—Travis Merritt, Les Perelman, and Ian Waitz. Part of the (Even) Better Teaching at MIT Series, sponsored by Undergraduate Academic Affairs and the Dean of the Graduate School. 2pm, Rm 16-134. More info: Peggy Enders, x3-3561.

FRIDAY, JANUARY 14

- Teaching a Recitation Section: Tips to Ensure Success and Save Time**—Donald Sadoway and Jackie Acho. Part of the (Even) Better Teaching at MIT Series, sponsored by Undergraduate Academic Affairs and the Dean of the Graduate School. 2pm, Rm 16-134. More info: Peggy Enders, x3-3561.
- Microcellular Polymer Processing and the Design of a Continuous Sheet Processing System*—Daniel F. Baldwin. Doctoral presentation, 2:30pm, Rm 1-134.
- Ice Core Data: What Should You Believe?*— Dr. Richard Alley, Pennsylvania State Univ. Sponsored by the Dept. of Earch, Atmospheric, and Planetary Sciences, 3pm, Rm 54-915. Refreshments, 2:30pm, Ida Green Lounge.
- Numerical Simulation of Cloud Dynamics, Microphysics, and Chemistry*—Chien Wang, Center for Clouds, Chemistry, and Climate, Scripss Institution of Oceanography. Sponsored by the Center for Global Change Science and the Center for Meteorology and Physical Oceanography, 4pm, Rm 54-915.

TUESDAY, JANUARY 18

- At MIT Humor is No Laughing Manner**— Jay Keyser, MIT. Brown Bag Lunch Series sponsored by the MIT Women's League, 12-1:30pm, Rm 10-105 (Bush Rm). This series is part of the year long celebration of the 80th anniversary of the Women's League.
- Good Teaching: At What Cost? At What Benefit?**—Hermann Haus and Frank Solomon. Part of the (Even) Better Teaching at MIT Series, sponsored by Undergraduate Academic Affairs and the Dean of the Graduate School. 2pm, Rm 2-105. More info: Peggy Enders, x3-3561.

WEDNESDAY, JANUARY 19

Teaching Laboratory Subjects**—Jennifer Caulfield and Jonathan Wilker. Part of the (Even) Better Teaching at MIT Series, sponsored by Undergraduate Academic Affairs and the Dean of the Graduate School. 2pm, Rm 2-105. More info: Peggy Enders, x3-3561.

THURSDAY, JANUARY 20

Teaching People to Think**—Shaoul Ezekiel.

Part of the (Even) Better Teaching at MIT Series, sponsored by Undergraduate Academic Affairs and the Dean of the Graduate School. 11am, Rm 2-105. More info: Peggy Enders, x3-3561.

FRIDAY, JANUARY 21

- Conference on Technology and Employment*—Sponsored by the Technology and Culture Seminar and the MIT Community Fellows Program. Continues Saturday. For info: x3-0108 or cparadise@mit.edu>.
- Teaching in English—Your Second Language**-Suzanne Koons. Part of the (Even) Better Teaching at MIT Series, sponsored by Undergraduate Academic Affairs and the Dean of the Graduate School. 11am, Rm 10-280. More info: Peggy Enders, x3-3561.

SATURDAY, JANUARY 22

Conference on Technology and Employment*—Sponsored by the Technology and Culture Seminar and the MIT Community Fellows Program. Continued from Friday. For info: x3-0108 or paradise@mit.edu>.

MONDAY, JANUARY 24

Should You Do It With a Computer?**—Greg Jackson. Part of the (Even) Better Teaching at MIT Series, sponsored by Undergraduate Academic Affairs and the Dean of the Graduate School. 11am, Rm 6-120. More info: Peggy Enders, x3-3561.

TUESDAY, JANUARY 25

- Producing and Teaching a Successful Subject**—Daniel Kemp. Part of the (Even) Better Teaching at MIT Series, sponsored by Undergraduate Academic Affairs and the Dean of the Graduate School. 11am, Rm 6-120. More info: Peggy Enders, x3-3561.
- The Private and Public Worlds of Katharine Dexter McCormick**—Margery Resnick, MIT. Brown Bag Lunch Series sponsored by the MIT Women's League, 12-1:30pm, Rm 10-105 (Bush Rm). This series is part of the year long celebration of the 80th anniversary of the Women's League.
- Developmental Effects of Endocrine-Disrupting Chemicals in Wildlife and Humans**—Dr. Theo Colborn, W. Alton Jones Foundation and World Wildlife Fund. Sponsored by the MIT Initiative in Environmental Leadership, 2-4pm, Rm 48-316. More info: x3-1992.

WEDNESDAY, JANUARY 26

- How to Speak**—Patrick Winston.Part of the (Even) Better Teaching at MIT Series, sponsored by Undergraduate Academic Affairs and the Dean of the Graduate School. 11am, Rm 6-120. More info: Peggy Enders, x3-3561.
- Managing the Future Use of Chlorine*—Brad Lienhart, Managing Director, Chlorine Chemistry Council. Sponsored by the MIT Initiative in Environmental Leadership, 2-4pm, Rm 48-316. More info: x3-1992.

THURSDAY, JANUARY 27

Dupont's Use of Quality Principles to Establish Corporate and Site Pollution Prevention Programs**—Randy S. Price, Manager of Environmental Affairs, DuPont Co. Meeting of the MIT Working Group on Business and Environment, 4-6pm, Rm E40-212. More info: x3-3586.

FRIDAY, JANUARY 28

The Hydrologic System of a Plio-Pleistocene Growth Fault*—Prof. Peter B. Flemings, Pennsylvania State University. The Crosby Lecturer, sponsored by the Dept. of Earth, Atmospheric, and Planetary Sciences, 4pm, Rm 54-915. Refreshments, 3:30pm, Ida Green Lounge.

■ READINGS

Reading by Jill McCorkle*—Jan 26: Reading by the author of Crash Diet, Ferris Beach, Tending to Virginia, The Cheer Leader, and July 7th. Sponsored by the Friends of Wellesley College Library and the staff of the MIT Libraries, 5pm, MIT Humanities Library Reading Room.

COMMUNITY INTEREST

- African American Parenting**—Dates and time to be scheduled. Continuing discussion series, begun in spring 1993, on the special challenges faced by African American families. New members welcome. Cosponsored by the Family Resource Center and the MIT Medical Dept. More info/preregistration: x3-4911.
- Alcoholics Anonymous (AA)**—Meetings every Tues, 12-1pm; Thurs, 12-1pm, Rm E23-364. For info: Alise, x3-4911.
- Women's 12-Step AA**—Meetings every Monday evening, 5:30-7pm, Rm E23-364. More info: Alise, x3-4911.
- Al-Anon**—Meetings every Fri, noon-1pm, Health Education Conference Rm E23-297;

- every Tues, noon-1pm, Rm 1-246; and every Mon, 12-1pm, 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. Call Alise, x3-4911.
- Alcohol Support Group**—Meetings every Wednesday, 7:30-9am, sponsored by MIT Social Work Service. For info call Alise, x3-4911.
- Cancer Support Group**—Meetings every Thursday, 12-2pm, Bldg E51. For those with acute and chronic forms of cancer. Sponsored by the MIT Medical Dept. For information about weekly luncheon meeting, call Dawn Metcalf, Social Work Service, x3-4911.
- Co-Dependents Anonymous (CoDA)*—Meetings every Thurs, 6:30-8pm, Rm 66-156. Info: Alise, x3-4911.
- Eastgate and Westgate Programs**—To obtain a list of programs sponsored by the Family Resource Center at Eastgate and Westgate, call x3-1592.
- Family Resource Center**—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, and individual consultations concerning parenting, child care options, and work/family issues. Call x3-1592. Lincoln Lab families can call 981-7028.
- Figure Skating/Ice Dance Club**—New members welcome! Low-cost figure skating and ice dance lessons, club-only ice times, an opportunity to be in the annual ice show. For more info, stop by the rink in Johnson Athletics Center on Saturday mornings, 8-10am, or Sunday mornings, 10am-12pm, or contact Kamyar Ghandi x3-5488 or <kghandi@mit.edu>. Must have figure skates.
- The Furniture Exchange at MIT**—Great buys throughout the store to furnish dorm room or apartment. A service project of the MIT Women's League. Hours and location: Regular hours: Tues/Thu, 10am-4pm; 1st Saturday of the month, 10am-1pm. Bldg WW15, 350 Brookline St. Call x3-4293.
- Gay, Bisexual, and Lesbian Employees and Supporters (GABLES) at MIT**—Come to discuss and work on issues ranging from domestic partner policies to gays in the military. Take part in varied cultural, educational, and social activities. For info on upcoming events, call x2-1014. To sign up for the staff lesbigay e-mail lists, send e-mail to <gabeserequest@athena.mit.edu>. If you have questions about GABLES, call Stephen, x3-6736.
- Graduate Student/Postdoc Parenting Discussion Group**—Dates and time to be scheduled. Discussion of special issues for graduate students and postdocs who are parents. Cosponsored by the Family Resource Center and the MIT Medical Dept. More info/preregistration: x3-2916.
- Guide for Foreign National Spouses Seeking Work**—Guides provide information on topics such as American resumes, job interviews, volunteer work, employment agencies, salary negotiation, visa issues, much more. Free information booklets available in Rm 5-106 (International Students Office), Rm 4-105 (International Scholars Office), and Rm 20A-023 (Office of Special Community Services). Reference binders may be used in Rm 12-170 (Office of Career Services); ask for Cathy Taylor.
- Hosts to International Students Program*—
 Each year many international students arrive at MIT to study. Far from family, friends and familiar ways, they face a challenging transition. Through the MIT host program one can offer assistance, encouragement and occasional hospitality to our students from around the world. This is not a home-stay program but rather one planned to promote friendship among people from different cultures. Faculty, staff and alumni/ae (singles, couples or families) are particularly encouraged to participate in this most rewarding volunteer opportunity. If you are interested, please call Kate Baty x3-4862.
- Informal Embroidery Group**—MIT Women's League, 10:30am-1:30pm. Upcoming dates are: Jan 19. Meets in the Emma Rogers Room 10-340. Info: x3-3656.
- Job Search Support Group**—A self-help group for spouses of foreign nationals who are looking for paid or volunteer work. Sponsored by the MIT Wives' Group. More info: Christine 720-2494 or Miho 661-7691.
- Narcotics Anonymous*—Meetings at MIT, every Mon, 1-2pm, Rm E23-364 (MIT Medical Dept). Call 569-0021.
- Overeaters Anonymous**—Meets Thursday, 1-2pm, Rm E23-364. More info: x3-4911.
- New Overeaters Anonymous (OA)*—Meets Friday, 12-1pm, Rm E23-364. Only requirement for membership is the desire to stop eating compulsively. Info: Alise, x3-4911.
- Parenting Children with Special Needs**—
 Dates and time to be scheduled. Participantled group for those with children of all ages who
 have special needs. Sponsored by the Family
 Resource Center. More info: Mary Hess 617484-5040 or <hessma@bcvms.bc.edu>, or Eric
 Celeste x3-0633, <efc@mit.edu>.
- Playgroups**—The MIT Wives Group, with the cosponsorship of the MIT Family Resource

- Center, sponsors and provides ongoing support for establishing and maintaining informal parent-child playgroups. Contact Wives Group, Rm E23-376, x3-1614.
- Tai Chi*—Ancient Chinese art, exercise, stress reduction, anti-aging, no age requirement, MIT affiliation not required, Student Center, West Lounge, meets Wednesdays 5-6pm. More info: x3-4724. Sponsored by the MIT Women's League.
- MIT Toastmasters**—Upcoming meeting: Jan 21 (meet in Rm 37-252 for this meeting only). An organization that helps people improve and practice their public speaking skills. 12:05-1:30pm. Sponsored by MIT Personnel Office.
- User Groups**—Jan 19: Microsoft Word (for the Macintosh) User Group, coordinated by Information Systems, 12-1pm, Rm 4-231. Topic: Word's Glossary Feature. More info: Phyllis Crerie, x3-0736.
- Working Parents Group**—Ongoing meetings weekly on Tuesdays, 12:30-1:30pm. Led by Jackie Buck, Social Worker, MIT Medical Department. Cosponsored by the Family Resource Center and the MIT Medical Dept. New members welcome, no fee, preregistration required, call x3-4911.
- Yoga*—Mondays, beginners, 5:15-6:30pm, Rm W31-2. Sponsored by the Women's League. More info: Ei Turchunetz 862-2613.

■ HEALTH EDUCATION

- Nursing Mothers' Support Group**—Third Wednesday of each month, 11am-12pm, Rm E23-297. No fee. No registration. Call x3-2466 for details. Sponsored by the MIT Health Education Service.
- Childbirth Preparation**—Early Pregnancy, Lamaze Childbirth Preparation, and Lamaze Review classes are offered to patients of the MIT Medical Department's Obstetrics Service. Call x3-1316 for details.
- Tape Time for Health**—A free video loan program. Topics include birth, parenting, baby care, smoking cessation, etc. Visit the Health Resources Center to borrow a tape or call x3-1316 for a list of titles available.

MITAC

Location: Room 20A-023, 18 Vassar St, Cambridge - 9:30am to 3:30pm, Monday, Wednesday, Thursday, & Friday. Room LIN-A-218, Lincoln Labs, Lexington - 1:15pm to 4pm; Thursday & Friday. MITAC is closed Tuesday and all Institute Holidays. Callx3-7990 or e-mail < byg@mit.edu> for futher information.

- Discount Movie Tickets: Loews Cinemas \$4.75 (\$4.25 plus 50¢ service charge), Showcase Cinemas \$4.75 (\$4.25 plus 50¢ service charge), General Cinemas \$5.00 (\$4.50 plus 50¢ service charge).
- Discount Aquarium Tickets: \$5.50 (regularly \$8) adult (11+), good anytime through May 1994.
- Entertainment Books: \$30 (regularly \$35).
- Camping & RV Show—Jan 22-30: Bayside Expo Center, Boston. \$2.75 adults & \$1.50 child (6-12).
- Home Show—Feb 5-13: Bayside Expo Center, Boston. \$2.75 adults & \$1.50 child (6-12).
- Beavers (Omni Theater Show)—Feb 24: 2pmshow: \$6.50 adult & \$5 child (3-14)/senior (65+).
- Swan Lake—Mar 13: By the Boston Ballet, 2pm at the Wang Center: \$43.

SOCIAL ACTIVITIES

- Chinese Lunch Table. Meets every Tuesday, 12-2pm, Student Center, Rm 439. Bring your own lunch and come practice speaking Chinese. All levels welcome. Sponsored by the Chinese Students Club.
- Japanese Lunch Table. Meets Tuesdays 12-2pm in Rms 407 and 491 in the Student Center. Bring a lunch. The MIT Japanese Wives' Group is eager to welcome all who wish to come and talk—either in English or Japanese. Make new Japanese friends, and learn about Japanese culture and traditions. Free babysitting provided. Call x3-2839.
- La Table Francophone. Informal French conversation, open to all. Meets Thursdays at 1pm in Walker Memorial Dining Room. More info: x3-9777.
- Esperanto Conversation Group. Meets 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>.

■ MUSIC

For recorded information on upcoming concerts call the MIT Music and Theater Arts Concert Line, 253-9800. Updated weekly.

Journey Into a Dream: Musical Tribute to Martin Luther King*—Jan 15: Annual Martin Luther King Celebration/Tribute performed by jazz vocalist Semenya McCord and Associates. 8pm, Kresge Auditorium. MIT Women's Chorale. Thursday evening rehearsals start Jan 20, 7:45-10pm, Emma Rogers Room (10-340). Open to all women in the MIT/Harvard community. Marilyn Dorsey, 484-8187.

THEATER

Theater & Dance Performance Hotline, x3-4720 for complete up-to-date information.

- Teresa Ralli Lecture/Demonstration—Jan 13, 18: Workshops with Teresa Ralli, a leading actress and member of the internationally-acclaimed Peruvian theater company Yuyachkani, visiting Artist-in-Residence at MIT. Ralli will demonstrate physical and vocal expertise through theory exercises and interactions withtraditional and modernmasks and costumes. Jan 13: 3pm, Kresge Little Theater. Jan 18: 8pm, Killian Hall. More info: x3-5623.
- Work-in-Progress: Yuyachkani and Master Class Students—Jan 20: Performance by Peruvian theater company Yuyachkani, visiting artists-in-residence at MIT, and students of their master acting class, 8pm, Kresge Little Theater. \$8, \$7 MIT community, \$5 MIT/Wellesley students. More info: x3-5623.
- Baby—Jan 28-30, Feb 3-5: MIT Musical Theatre Guild production of the musical by Maltby and Shire, 8pm, Stratton Student Center, Sala de Puerto Rico. \$8, \$7 MIT community, \$5 MTT/Wellesley students. More info: x3-6294.
- The Foundling (or A Basket of Ham)—Jan 29-30, Feb 4-6: The MIT Gilbert & Sullivan Players present an original comic opera inspired by the works of Gilbert and Sullivan, written by Mary A. Finn '81 with a score by Robert Weingart, 8pm, Walker Dining Rm, Rm 50-140. More info: x3-0190.

EXHIBITS

- List Visual Arts Center (E15): "Dan Graham: Public/Private." Film, video, performance, architectural models, and glass and mirror structures, by the American conceptual artist. "Maria Fernanda Cardoso: Recent Sculpture." Colombian artist Maria Fernanda Cardoso cElegant, Minimalist-inspired sculpture from materials exotic to a North American audience, by the Colombian artist. Jan 14: Opening Reception: The artists of both exhibitions, Dan Graham and Maria Fernanda Cardoso, will attend. 5-7pm. Jan 15: Artist's Gallery Talk. Maria Fernanda Cardoso will speak on her exhibition, 3pm. Shows run Jan 15-March 27. Hours: Tues, Thurs, Fri 12-6; Weds 12-8pm; Weekends 1-5; closed holidays. More info: x3-4400; 24-hr Hotline, x3-4680.
- MIT Museum Bldg (N52). The Works of Charles H. Woodbury. Major retrospective of artist/teacher Charles H. Woodbury (1864-1940), MIT 1886, one of the earliest artists working in the Impressionist style. Ongoing: Crazy After Calculus: Humor at MIT; Doc Edgerton's Stopping Time; Holography: Types and Applications; Light Sculptures by Bill Parker, Math-in-3D: Geometric Sculptures by Morton C. Bradley, Jr.; MathSpace. Tues-Fri 9-5, Weekends 1-5. More info: x3-4444.
- Compton Gallery. Sculptures and Paintings by David Bakalar. Bakalar's iconographic works are created with emphasis on high technology in both materials and technique. Jan 21-March 4. (Enter 77 Mass Ave. Weekdays 9-5. Info: 253-4444) Hart Nautical Gallery, Course 13, 1893-1993: From Naval Architecture to Ocean Engineering. The history of the Dept of Ocean Engineering. Includes a prototype autonomous underwater vehicle, designed and built in the 1970s, and current work including research performed by the department for Bill Koch's successful America's Cup campaign with America3. Permanent exhibition of MIT Museum's Ship Models. Ongoing. Weekdays 9-8. More info: x3-5942
- Strobe Alley. Optical Alchemy. Full-color fluorescent photographs taken at night during underwater dives by Charles H. Mazel, research engineer, MIT Department of Ocean Engineering. Bldg 4, 4th floor. More info: x3-4444.

■ OTHER

Wiesner Gallery Second Annual Student Art Competition*—Jan 19: Competition open to all MIT students, judged by a special panel. Winners to display their work at a special exhibition in February marking the opening of the Spring Season. Submit no more than three pieces (2-D or 3-D work), 9am-4pm, to the Campus Activities Complex, Rm W20-500. All pieces must be complete and ready for display when submitted. Decisions will be announced the following week. During the year the committee meets regularly to review MIT student work. Application forms for exhibits are available at the CAC Office, Rm W20-500. Info: x3-3913.

Deadline for Submissions for Spring RUNE— Jan 31. The MIT Journal of Arts and Letters is accepting submissions in prose, poetry, plays, photographs, artwork. Hard copy submissions can be deposited in several offices: Rm 7-104, Rm 14N-317, Rm W20-401. Electronic submissions and questions should be sent to 'crune-staff@mit.edu'. All pieces must be accompanied with individual's name, telephone number, and electronic mail address.

Send notices for Wednesday, January 26 through Sunday, February 6 to Calendar Editor Rm 5-111, before 12 noon Friday, January 21.



THE LONG GRAY LINES-Belinda Garcia, a junior in math and computer science, takes a moment to bask in sun and shadows. Photo by Donna Coveney

IAP 1994

What's Happening Around Campus This Month

This year's IAP features many sessions and seminars of interest to a sizable cross-section of the MIT community. Among the offerings are a pair of two-day events on high-tech jobs and Martin Luther King, Jr. youth observances. A sampling of others is described below.

TECHNOLOGY / EMPLOYMENT

The centerpiece of this year's IAP is MIT's Conference on Technology and Employment slated for January 21-22, sponsored by the Technology and Culture Seminar. The conference will examine factors underlying the ongoing trend of high-tech industry layoffs affecting both highly trained workers and new entrants into the job

Cambridge Mayor Kenneth Reeves will welcome attendees at 9am on January 21. Before and after that day's series of workshops, there will be plenary sessions addressing the impact of the high-tech revolution on productivity and jobs. Among the speakers are MIT Professors Jonathan King of biology and Thomas Kochan of the Sloan School, Helen Shapiro of Harvard Business School, and David Arian, presi-

dent of the International Longshoremen's and Warehousemen's Union. On Saturday, small working groups will discuss issues including education, job creation, and research and development. The full program is listed in the

To register and reserve program documents, send \$5 to Patricia Weinmann (checks payable to the Technology and Culture Seminar) at 312 Memorial Drive. For more information, contact her at x3-0108 or <paradise@mit.edu>.

HEALTH AND ENVIRONMENT

'Critical Condition: Human Health and the Environment" is the title of a session that will be conducted Wednesday, Jan. 26 by Dr. Eric Chivian, a psychiatrist with the MIT Medical Department and co-author and editor of a book by the same name. The bookwhich is a resource for physicians, environmental scientists and activists, and the general public-is a medical response to the Earth Summit in Rio de Janeiro and addresses the threat to human health from population growth and environmental degradation.

With Drs. Helen Caldicott and Ira

Helfand, Dr. Chivian revived Physicians for Social Responsibility in 1978. He was also a co-founder in 1980 of International Physicians for the Prevention of Nuclear War, recipient of the Nobel Peace Prize in 1985.

The talk will be in the Emma Rogers Room from noon-1pm (note change of location).

M.L. KING YOUTH CONFERENCE

The annual MIT Community Fellows' Youth Conference in honor of Martin Luther King Jr. will be held January 14-15 at the Student Center.

The theme is "Realizing the Dream Through Poetry and Hip Hop: Positive Words for a Positive Future." Organizer of the activities in Melvin H. King, director of the Community Fellows Program.

Events begin at 1:30pm Friday with registration and continue with educational programs and a panel discussion. Poetry and hip hop entertainment conclude the first day's activities.

Saturday events begin at 9am and workshops are scheduled throughout

The concluding event Saturday is Journey Into a Dream, a musical tribute to Dr. King by jazz vocalist Semenya McCord and her group at Kresge Auditorium. The event is free and open to the public.

COLD FUSION

Cold fusion will be the focus of a day-long seminar on Saturday, January 22. The series of talks and group discussions will be held in Rm 2-190 from 9-11am and Rm 6-120 from 11am-4:30pm. Seven speakers are scheduled for the event, which is free. For more information, contact Mitchell Swartz (MIT SB '71, SM, EE, and ScD) at <mica@world.std.com>.

SCIENCE JOURNALISM

Three science journalists and two leading MIT scientists will address the process of science journalism and the factors that affect its quality at a program on Monday, Jan. 24, noon-2pm at the Whitehead Institute for Biomedical

"Meet the Press" will feature a panel discussion with Paul Raeburn, science editor for the Associated Press; Dick Thompson, a science writer with Time magazine; and Cris Russell, a freelance writer formerly with the Washington Post. Also on the panel will be Professor Phillip Sharp, head of the Department of Biology, and Professor Gerald Fink, director of the Whitehead Institute. David Ansley, acting director of the Knight Science Journalism Fellowships, will serve as moderator.

Each panelist will talk for five to 10 minutes. Their presentations will be followed by a Q&A session. "The intended audience is young scientists who have little to no experience in talking with the press, but all members of the MIT community are welcome," Mr. Ansley said.

The program will be held in the Whitehead Auditorium.

TEACHING SEMINARS

With the quality of college teaching much in the news these days, a series of seminars has been arranged to enhance pedagogical skills at MIT. Ranging from "How to Speak" offered Wednesday, Jan. 26 by Professor Patrick Winston to "Teaching Laboratory Subjects" presented by graduate students Jennifer Caulfield and Jonathan Wilker on Wednesday, Jan. 19, some of the daily topics give nuts-and-bolts tips to those now teaching and those who hope to some day. Other offerings, such as "Good Teaching: At What Cost? At what Benefit?" by Professors Hermann Haus and Frank Solomon, are more philosophical in nature.

The series has been arranged by the Undergraduate Academic Affairs Office and the Office of the Dean of the Oraquate School. For a complete insting of the remaining schedule, call Peggy Enders, x3-3561.

MIT Reviews Fernald Studies

(continued from page 1)

prove understanding of nutritional processes in order to promote health of young people, and that radiation exposure appears to have been well within even today's limits," Dr. Vest said.

Professor of Physics J. David Litster, vice president and dean for research, reviewed the four articles published in professional journals in the 1950s plus a PhD thesis that dealt with the work. The published studies made no mention of the matter of informed consent, and the review was therefore limited to the scientific aspects and the radiation exposures.

The occupational and research limits today for people 18 and under is 500 millirems per year, in addition to normal background radiation of 300 millirems per year plus any medical radiation (see Tech Talk Radiation Guide, Jan. 5, 1994).

The adult occupational limit and the research limit are 5,000 millirems per year above background levels, plus any medical radiation. For a fetus, the mother's occupational limit is also 500 millirems, but it is recommended that exposure to the mother (and fetus) be limited to no more than 50 millirems per month. (In the 1950s, the limit for an adult was 15,000 millirems; for a person 18 or under, it was 1,500 millirems.) Levels of exposure to radioactivity, like alcohol intoxication levels, depend on a person's weight.

The dietary iron study by Professor Harris and three other MIT researchers showed that iron supplements are more effective when taken between meals, because eating cereals decreases iron

To track the iron absorption, less than a billionth of an ounce of a radioactive iron tracer was mixed with breakfast cereal. Seventeen youths, aged 12 to 17, had seven oatmeal or farina breakfasts over a period of 40 weeks. The average exposure in the iron study was 230 millirems, or 54 percent below the current limit. The exposure of the lightest youth was 330 millirems (34 percent below the current limit) and the exposure of the heaviest youth was 170 millirems, or 66 percent below the current limit. (Editor's Note: These numbers correct the figures [average of 172 millrems, range of 127-245 millirems] published regarding this research in last week's Tech Talk).

The calcium studies were pioneering studies which laid the foundation for much subsequent research on osteoporosis. The scientists gave 45 youths and one adult two exposures totaling 4 to 12 millirems (99 percent to 97 percent below the current limit). To interpret these figures, it should be noted that the extra radiation dose for a round trip airplane flight from Boston to California is 12 millirems. Also, 10 millirems is the amount of exposure per year from daily use of salt substitute (potassium chloride).

The research was done by F. Bronner, Professor Harris, C.J. Maletskos, all of MIT, and C.E. Benda, who had an appointment at the Harvard Medical School and was clinical director at the Fernald School.

The first calcium study, published in 1954, involved 19 youths aged 13 to 17 with a low-calcium diet. They received two oatmeal or farina breakfasts three weeks apart, each containing in the milk 0.85 microcuries (twotrillionths of an ounce) of radioactive calcium45 as a tracer.

The second study, published in 1956, involved 17 youths aged 10 to 16 with a moderate-calcium diet; each of them also received two oatmeal or farina breakfasts three weeks apart containing the same amount of radioactive calcium. The two studies showed that if sufficient calcium was present in the diet, phytates (a class of chemical compounds) in food such as oatmeal have no effect on the amount of calcium absorbed by the body. The amount of dietary calcium required was about three times the amount of phytate in the diet; this requirement is met by most American diets (but not, perhaps, by very low-calcium diets in other coun-

A third calcium study, also published in 1956, involved nine youths (aged 11 to 15) who had the same breakfast as those in the other two studies. They also received a direct injection of calcium containing as a tracer slightly less than two-trillionths of an ounce (0.75 microcuries) of radioactive calcium. An adult also received an injection with a proportionally higher dosage.

The purpose of the third study was to establish a baseline for the metabolism of calcium in the blood, including how much is excreted via the urine and feces after the calcium-in a reverse absorption process—passes through the wall of the lower gastrointestinal tract. The third calcium study found that calcium in the body system is excreted mostly through the urine, with only a third being excreted in the feces. It also showed that the body excretes injected calcium very slowly (because the calcium goes to the bones and stays there).

By comparison, radiation exposure from therapeutic treatment for medical conditions is vastly larger. For example, radioactive iodine drinks for hyperthyroidism deliver 10,000,000 millirems to the thyroid gland and 20,000 millirems to the rest of the body.

emelson Prize, Chair Created

(continued from page 1)

bots, bar code scanning systems, cordless telephones, fax machines, VCRs and the magnetic tape drive used in the Sony Walkman tape player.

"We've established the Lemelson-MIT prize to encourage young people in this country to seek careers in invention and innovation-to inspire their ingenuity," Mr. Lemelson said.

\$6.5 MILLION INITIATIVE AT MIT

The Lemelson-MIT prize is open to United States citizens and will be conferred for the first time in early 1995. It is part of a \$6.5 million initiative that also includes the Jerome and Dorothy Lemelson professorship, 10 research fellowships linked to the chair to support graduate students studying ways to increase innovation, and eight awards for undergraduate MIT students who have demonstrated achievement in inventiveness and innovation in any field.

"This prize and the program are significant to MIT," said Dr. Vest, "because the university was founded 133 years ago on the idea that it's important to develop new ideas and solutions to real-world problems. One of the ways we cultivate those ideas is by linking undergraduate students with MIT faculty in a wide range of innovative research activities."

Mr. Lemelson said he considered MIT "an ideal partner because of its longstanding commitment to fostering the spirit of invention and the development of technological innovation and the international respect it commands. The prize program and MIT's other commitments to stimu-

three. The lifetime risk for a fatal cancer is one in five. For the iron study, there was an average increased lifetime risk of a fatal cancer of about 1 in 3,000. For the calcium study, the average increased lifetime risk of a fatal cancer was about 1 in 100,000.

lating invention can set a precedent that other influential American institutions can follow to ensure America's future economic success."

Mr. Lemelson believes that America is facing an innovation crisis because



Jerome H. Lemelson

too few of its high school students are interested in careers in innovation. "A survey we commissioned just last week found that almost 75 percent of high school students would prefer to be in show business than be an inventor," he observed. "We must convince our nation's young people that the field of invention can be far more rewardingfinancially and in other respects-than most of them think."

Mr. Lemelson is committed to this mission because "every new American inventor is a potential new American business. By growing our own technology and rewarding American inventors with protectable patents, we create jobs at home and capture revenue streams throughout the globe."

When asked to comment on the luncheon and the events of the day, Mr. Lemelson smiled and simply said, "This was the best day of my life.'

Affirmative Action Progress

Student Affairs, the Medical Department, Athletics and Resource Development. Managers throughout the Institute have been urged to give increased attention to career development and mentoring of their staff members, and specific career development assistance including further education and professional training—has been provided to several minority administrators.

President Vest said that a specific action that will demonstrate renewed commitment to affirmative action in employment at MIT is "thoughtful and effective recruitment and career development of minorities for positions at all levels." This is necessary, he said, "to ensure their greater and more effective participation in MIT's

A major step in helping MIT maintain its commitment to equality of opportunity in education was the successful conclusion of the litigation with the federal government on financial aid. MIT views its commitment to needblind admission and need-based sup-

(continued from page 1) port as vital in this regard, President Vest has said.

> Dr. Vest and Provost Mark S. Wrighton announced earlier that special programs that assist departments in seeking minority faculty and women for faculty posts will continue to be funded. In the last three years, 11 new minority faculty members have been hired, four of whom are women. In addition to those four, there have been 21 women professors hired in the last three years. The Provost's Office also reported that several current offers of faculty positions made through these two recruitment programs are under consideration.

> "MIT has always been a place where people with exceptional talents and intellect have gathered to work, to explore, to learn and to teach. Success in these efforts will enable us not only to reflect the changing face of America, but to draw on the full range of talents needed to meet the challenges of a changing world," Dr. Vest said in his statement.

Despite current fiscal constraints,

A person's normal lifetime risk of contracting cancer from all sourcestobacco, chemicals, background radiation, medical radiation, etc.—is one in