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Methanol Marathon: Four undergraduate students will represent the University in a 1,100-mile road rally in a car that the students converted to run on methanol. Student teams from 15 American and Canadian universities will depart April 29 from Detroit, Mich., arriving five days later in Washington, D.C. The teams will be judged on such variables as fuel economy, emissions and rally time. Members of the University's Methanol Marathon team are (from left): Michael Orf, Stephen Kiefer, Joann Smith, Edward Nowakowski and David Ho; and faculty advisers Richard Rabbitt, Ph.D., and Theodosios Korakianitis, Ph.D. Not pictured is K. J. Dauer. Since the photo was taken, Orf graduated, but is still involved in the project; Ho is no longer working on the project. Dauer, Kiefer, Nowakowski and Smith will drive the "customized" Chevrolet Corsica LT. For more on the Methanol Marathon, see story on page 2.

Magellan Mission

'Next 10 years in space will be priceless,' says Ray Arvidson

The United States is poised to launch the Magellan Mission to Venus on April 28. The first U.S. planetary project since the 1978 Pioneer mission to Venus, Magellan promises a treasure-trove of new knowledge. But it also threatens to raise the stream of computer-generated space data to the flood stage.

"In terms of understanding the solar system, the next 10 years in space will be priceless," says Raymond E. Arvidson, Ph.D., professor of earth and planetary sciences and a member of the radar investigation group for the Magellan Mission. "But there is a corresponding data explosion that must be met. The situation will become critical by the time Magellan data return to Earth. At first glance, this seems to be simply too much of a good thing, but the implications are deeper than that."

In the 11 years since the last planetary mission, scientists have made tremendous advances in remote sensing (computer imaging) — advances that promise to make Magellan one of the most enlightening space explorations ever undertaken. These same advances, however, have led to sensors that can generate data sets far more voluminous and complex than those of the past, says Arvidson.

According to Arvidson, the Magellan Mission will map by radar 70 percent of the Venusian surface with a resolution as fine as the width of two football fields, providing unprecedented "snapshots" of Earth's sultry twin. Magellan alone will return enough data to double the existing digital image data for all the previous planetary missions combined. Closer to home, the amount of data generated from various Earth Observing System (EOS) spacecraft could encompass a staggering one trillion bits a day by the mid-1990s, according to a July 1988 National Research Council report.

Arvidson is the director of the University's remote sensing laboratory, one of 13 NASA Regional Image

Facilities. The laboratory is home to an archive of moon and planet photographs and digital maps used by scientists throughout the world. In recent years, the laboratory has expanded to include highly refined digital maps of the Earth.

Arvidson and NASA scientists at the Jet Propulsion Laboratory in Pasadena, Calif., the U.S. Geological Survey in Flagstaff, Ariz., Massachusetts Institute of Technology and Brown University will be the prime caretakers of the complete collection of radar imaging of Venus from the Magellan Mission. Those images will be computer-interpreted and assembled to make global maps of Venus — data that will help the scientists explore possible volcanic activity, changes in the planet's climate and similarities between the Venusian and Earth surfaces.

Venus: a hot topic

Scientists already know or can infer a good deal about Venus, thanks to major efforts by the Soviet Union (the Venera series) and the United States (the Pioneer spacecraft) during the 1970s. Previous remote sensing and rock sample data reveal a world of lava flows and mountains. Extraordinarily hot — its surface is about 850 degrees Fahrenheit, roughly one-and-a-half times the highest heat of a kitchen stove — Venus is largely devoid of water and lacks any evidence of continents.

The Magellan Mission, with its high-resolution imaging, may prove that there are active volcanoes on Venus, a notion scientists have held for many years. Analyses of rocks from the Soviet Venera missions reveal granite and basalts, which suggest a history of volcanism, but are not conclusive enough evidence.

"Previous tests have revealed an abundance of sulfuric acid in the Venusian atmosphere," Arvidson says. "Something is putting sulfur in the air right now, perhaps volcanoes."

Magellan data also may show whether the mountain ranges of Venus, like the Earth's, are due to plate tectonics, or whether some other process is involved. It is known that Mars, Mercury and the moon, for instance, are one-plate planets that release their interior heat mainly by conduction through the crust.

Finally, the greenhouse effect, which on Earth concerns many scientists, is a natural condition on Venus. The greenhouse effect — where heat is trapped by carbon dioxide, thus evaporating water and heating the planet — is so rampant on Venus it is called a "runaway" effect. Ninety-seven percent of the Venusian atmosphere is composed of carbon dioxide. Water in such an extreme environment is not stable.

The numerical bits generated by Magellan, as well as by other existing and projected space satellites and communications systems, provide NASA scientists the raw data to geologically map Earth and the planets. They also tip scientists to such global problems as the greenhouse effect and depletion of the ozone layer. But, Arvidson warns, the enormous jumble of data is meaningless without the computer power to interpret it — a classic case of "water everywhere, but not a drop to drink."

Finer view

At the crux of the 1990s space challenge is the decade-long advance in remote sensing. For example, the Viking Landers that imaged Mars in 1976 examined the "Red Planet" through three filters of red, blue and green, each filter showing a different aspect of the Martian surface. In contrast, equipment to be used on the EOS spacecraft, Arvidson notes, will reflect light in more than 200 wavelengths, revealing intimate information about the atmosphere, oceans and surface of the Earth.

Arvidson's colleague Mohamed

Continued on p. 2

Cox named first Welge professor in computer science

Jerome R. Cox, Sc.D., professor of computer science and chairman of the department, has been named the first Harold B. and Adelaide G. Welge Professor of Computer Science in the School of Engineering.

Cox was honored at a ceremony April 24 in Lopata Hall Gallery.

The Welge professorship will provide ongoing support for Cox's research activities in computer communications, computer imaging and algorithms for mapping of the human genome.

"Since joining the Washington University faculty in 1955, Dr. Cox has made many outstanding contributions to computer science and its applications," says James M. McKelvey, Ph.D., dean of the School of Engineering. "He is a highly versatile engineer who now, as in the past, is in the middle of exciting scientific advances. Dr. Cox is richly deserving of this honor."

Harold B. Welge is a Washington University School of Engineering alumnus who worked for the Department of Public Utilities in St. Louis, Fruin-Colnon Construction in St. Louis and the St. Louis Water Division. Adelaide G. Welge holds a master's degree in mathematics with a minor in science from the University of Pittsburgh. The Welges have maintained a longstanding interest in the sciences, including computer science.

"I am honored to be the first Welge Professor," says Cox. "The support this position provides is of great assistance to my current projects in computer imaging, communications systems, computer architecture, data communications and biomedical computing and speech recognition."

Cox holds the bachelor's, master's and doctoral degrees in electrical engineering from the Massachusetts Institute of Technology.

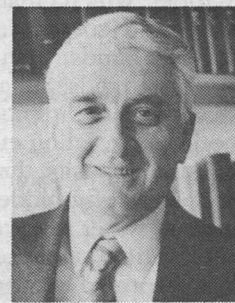
In 1955 he joined the research department of the Central Institute for the Deaf, which is part of the Washington University Medical Center, as head of electrical engineering and physical acoustics. That same year he joined the faculty as assistant professor of electrical engineering. He was appointed associate professor in 1958 and professor in 1961, becoming director of the Biomedical Computer Laboratory in 1964.

In 1965 he was appointed professor of biomedical engineering in the Department of Physiology and Biophysics; he was chairman of the Washington University Computer Laboratories from 1967 to 1983.

In 1975 Cox resigned his post as director of the Biomedical Computer Laboratory to become chairman of the Department of Computer Science.

Cox has served on many committees for the National Institutes of Health, the National Science Foundation, the Defense Mapping Agency and other organizations. Since 1974, he has co-chaired the International Conference of Computers in Cardiology with Paul Hugenholz of the Thoraxcenter, Rotterdam, the Netherlands, and later with Jurgen Meyer of Johannes-Gutenberg University, Mainz, Germany.

Cox holds membership in various professional organizations, including senior membership with the Institute of Medicine of the National Academy of Sciences.



Jerome R. Cox



As a member of the NASA radar investigation group for the Magellan Mission to Venus, Raymond E. Arvidson, Ph.D., professor of earth and planetary sciences, says, "If all goes well, we will be on line to receive the Magellan data by the fall of 1990 and ready to participate in the most illuminating decade of the U.S. space program."

Magellan Mission — continued from p. 1

Sultan, Ph.D., a research associate in the earth and planetary sciences department, has mapped Egypt's Nubian Shield, an arid area near the Red Sea. The scientist used satellite data from the Landsat Thematic Mapper, which creates images from sunlight in six visible and reflected infrared bands. With the EOS 200-plus imaging bands, Sultan will be able to study the area in much finer detail, perhaps revealing evidence of valuable mineral deposits, the effects of drought and even long-hidden aquifers (underground water reserves).

To help stem the enormous tide of uninterpreted numerical bits flowing back to Earth, the W.M. Keck Foundation has awarded a \$300,000 grant to the University's Department of Earth and Planetary Sciences to purchase new computer equipment for its remote sensing laboratory.

"The gift is vital to take us where we want to go," says Arvidson. "It's a beautiful match between the challenge we face with the new data and our desire to make the 1990s the most exciting space decade of the 20th

Century." Arvidson will administer the Keck grant, which, he says, comes not a moment too soon.

The gift's most immediate use will be in interpreting data from the Magellan Mission. The funds from the Keck Foundation, one of the nation's largest foundations in terms of annual grants, will be used to buy advanced "smart" computer equipment from the Digital Equipment Corp. (DEC), which has agreed to sell the equipment at approximately a 50 percent discount.

Arvidson and his colleagues plan to work with an advanced network of computers that will enable them to rapidly assemble, display and analyze the Magellan data as it is being beamed toward Earth in September 1990. The network of as many as 10 computers also will help his laboratory speedily access and display the images.

"If all goes well," Arvidson says, "we will be on line to receive the Magellan data by the fall of 1990 and ready to participate in the most illuminating decade of the U.S. space program."

Tony Fitzpatrick

Modern Arabic fiction expert to talk

Roger Allen, a leading expert on modern Arabic fiction, will present a lecture at 7 p.m. Monday, May 1, in Hurst Lounge, Duncker Hall. His lecture, part of the Assembly Series, is titled "Naguib Mahfuz and the Arabic Novel: The Historical Context."

The event is free and open to the public.

Allen is professor of Arabic at the University of Pennsylvania. He is co-founder and co-editor of the journal *Edebiyat*.

Allen has written extensively on Arabic literature. His books include *Modern Arabic Literature* and *The Arabic Novel: An Historical and*

Critical Introduction. Allen's contributions to books focus on nationalism and Arabic literature, Arabic poetry and the Arabic novel outside Egypt.

Allen has translated into English many works by Arabic authors, including *Autumn Quail* and *Mirrors* by Naguib Mahfuz, who won the 1988 Nobel Prize in literature. Mahfuz's works examine the changes that have taken place in Egyptian society during the last half-century.

The lecture is co-sponsored by the Assembly Series and the Department of Asian and Near Eastern Languages and Literatures. For more information, call 889-5285.

Making a 'futuristic technology happen now'

1,100-mile road rally will test students' methanol-converted car

Washington University's name will catch the eye of thousands of motorists in the eastern states and even in Canada next week.

Four undergraduate students will represent the University in a 1,100-mile road rally that will test their craftsmanship and ability to operate a 1988 Chevrolet Corsica LT that the students have converted to run on methanol.

The Methanol Marathon, featuring students from 15 American and Canadian universities, will depart April 29 from Detroit, Mich., and wind its way through Toronto, New York State, New Jersey, Delaware and Maryland, ending five days later in Washington, D.C.

Student teams from California to Texas to Montreal, Canada, will compete for cash prizes ranging from \$1,000 to \$6,000.

Stephen Kiefer, Edward Nowakowski, Joann Smith and K.J. Dauer, seniors in engineering, will drive their "customized" Corsica emblazoned with a red and green Washington University logo.

Primary sponsors of the event are General Motors Corp., the U.S. Department of Energy, and the Canadian Department of Energy, Mines and Resources.

Methanol is an alcohol derived from non-crude-oil resources such as natural gas or coal. It can be burned either "neat" (100 percent) or near-neat or in low concentration blends with gasoline. Another alternative fuel sold in several states, gasohol, is a mix of 90 percent gasoline with 10 percent ethanol, alcohol derived from grains such as corn and soybeans.

Both alternative fuels are generally considered less of an environmental threat than gasoline, although there are drawbacks to their large-scale acceptance. Several U.S. and Canadian cities presently are experimenting with

methanol-fueled buses and other vehicles.

Theodosios P. Korakianitis, Sc.D., and Richard D. Rabbitt, Ph.D., assistant professors of mechanical engineering, are faculty advisers of the students in the event. They say the Washington University entry is an outgrowth of a special engineering design class, Mechanical Engineering 404.

"Students in this class have to cooperate on a design project that is related to a technological problem," says Rabbitt. "For the Methanol Marathon, the students had to write their own proposal, and once accepted, perform their own modifications. This project shows that a group of undergraduates can make a futuristic technology happen now."

Like the other contestants, the Washington University team, which began work on the automobile last November, modified the vehicle to run on an 85 percent methanol/15 percent gasoline mix. They altered the engine, the intake/exhaust systems, fuel and ignition systems. They will be judged on such variables as fuel economy, startability, emissions, acceleration and rally time. Thus, a team that crosses the finish line first is not necessarily the first-place winner.

"The students have been a pleasure to work with," says Korakianitis, who is coordinator of the Washington University internal combustion engineering laboratory. "We look for projects that will emphasize teamwork and will end up with results of practical importance to the nation's population and the manufacturing sector. This one was a great match."

The Washington University Methanol Marathon Rally team was supported locally by the Terry Fisher dealership in St. Peters and Carter Carburetor in St. Louis.

St. Louis Dancers to present nine solos

The St. Louis Dancers will perform a spring concert, which includes four premieres, at 8 p.m. Friday and Saturday, May 5 and 6, and at 2 p.m. Sunday, May 7, in Edison Theatre. The program, titled "Personal Spaces," will feature nine soloists, some performing their own choreography.

Four of the soloists are guest artists, including James Reedy, a member of the renowned Eric Hawkins Company of New York City, who will premiere "Sun on Rocks," a work he choreographed. Fred Matthews, a member of the Limon Company of New York and an acclaimed choreographer, will make a guest appearance.

The program also features choreography and performances by Muriel Cohan and Patrick Suzeau, artists-in-residence in dance at Washington University, as well as Michael Ballard, assistant professor of dance and former lead dancer with the Murray Lewis Company.

"A solo dance is probably the most difficult task for a choreographer, especially if the choreographer and the performer are the same person," says the group's founder and artistic director, Annelise Mertz, who is professor emerita of dance.

The troupe, a professional company affiliated with Washington University, is composed of faculty and alumni of the University's dance department.

A benefit reception for the St. Louis Dancers will be held following the May 5 performance in the Alumni House, 6510 Wallace Circle, off Forsyth

Boulevard. Admission to the champagne and dessert reception is \$7.

Tickets for the performance are \$15 for the general public; \$10 for Washington University faculty and staff; and \$7 for students. There will be a \$2 discount for all tickets bought in advance.

For information, call 889-6543.

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NOTABLES

Saul Boyarsky, M.D., J.D., professor of surgery, gave a talk on "Expert Witness Bias" at the annual convention of the American College of Legal Medicine, held March 4 in Rancho Mirage, Calif.

Thomas F. Eagleton, LL.B., University Professor of Public Affairs and former senator, and Howard Baker were the invited speakers at the celebration of the 200th anniversary of when the U.S. Senate met and, with a quorum present, officially conducted business for the first time. Eagleton's lecture, titled "The Compromise of 1850 — Compromise in 1989," was delivered in the Old Senate Chamber on April 6.

Roland Jordan, Ph.D., associate professor of music, and **Emma Kafalenos**, Ph.D., lecturer in comparative literature, organized and chaired the section on "Narrative and Narratology: Comparative Studies in Music and Literature" at the national conference of the American Comparative Literature Association, held March 8-11 at Brandeis University. At the same conference they presented a jointly written paper, titled "Sources: Music and Narrative Technique in E. T. A. Hoffmann."

R. Gilbert Jost, M.D., professor of radiology, recently was appointed associate editor of the magazine *Digital Imaging*. He also has been elected to the Board of Directors of the Radiology Information System Consortium, an organization to promote the development of computer applications in radiology.

Bill Kohn, professor of art, had his paintings displayed at the Boger Gallery Feb. 24-March 31. He delivered an opening lecture Feb. 24, titled "Travel With a Paint Brush, Mexico and Spain." Kohn also presented a multimedia show with music by **Rich O'Donnell**, director of the University's percussion ensemble, to the Society for Spanish and Portuguese Historical Studies at its national meeting, held April 22 at the Marriott Pavilion Hotel.

Udo Kultermann, Ph.D., the Ruth and Norman Moore Professor of Architecture, will speak on "The Residence of the Artist as an Image of the World" on April 26 at the Goethe-Institut of Chicago. The lecture is co-sponsored by the Literary Society of Chicago.

Tom R. Miller, M.D., Ph.D., associate professor of radiology, presented "Advanced SPECT Filtering" at the SPECT Symposium of the Society of Nuclear Medicine, held in New Orleans.

Gilbert H. Nussbaum, Ph.D., associate professor of radiation physics in radiology, presented a paper titled "Hydralazine Enhanced Heating of Deep-Seated Canine Tumors" and was an invited panelist and speaker in the workshop on "Advancing Hyperthermia Through Cooperation Between the Research Community and System Manufacturers" at the annual meeting of the Radiation Research Society and the North American Hyperthermia Group, held March 18-23 in Seattle.

Robert L. Pierce, Ph.D., associate professor of social work, was among three individuals honored April 8 at the fifth annual conference sponsored by the St. Louis Affiliate of the National Black Child Development Institute. Pierce received an award from the affiliate in recognition of his pioneer work in the area of family violence and child abuse. In the early 1970s, he was one of the first academicians in the area to do in-depth research into

family violence and child abuse. In addition, a paper he co-wrote, titled "Munchausen Syndrome by Proxy: Covert Child Abuse," was published in the *Journal of Family Violence*. Co-authors were former student, **Doris Manthei**; **Robert J. Rothbaum**, M.D., and **Uwe Manthei**, M.D., both assistant professors of pediatrics at the medical school; and **James P. Keating**, M.D., professor of pediatrics. Pierce also co-authored a videotape, titled "Death in a Cancer Support Group: A Question of Survivorship." The videotape was produced by the social work school in collaboration with Barnes Hospital.

Mark R. Rank, Ph.D., assistant professor of sociology, recently presented a paper, titled "Fertility Among Women on Welfare: Incidence and Determinants," at the Midwest Sociological meetings held in St. Louis. The paper subsequently was published in *American Sociological Review*, the premier academic journal in sociology.

Dharni P. Sinha, Ph.D., Barbara Bailey Visiting Professor at the School of Social Work for March through May, is teaching a course on strategic planning for students in the master of social work program and a seminar for the school's agency field instructors on management training for social work administrators. Sinha is the principal of the Administrative Staff College of India, Bella Vista, Hyderabad, India. His stay is funded by the Barbara A. Bailey International Program endowment fund.

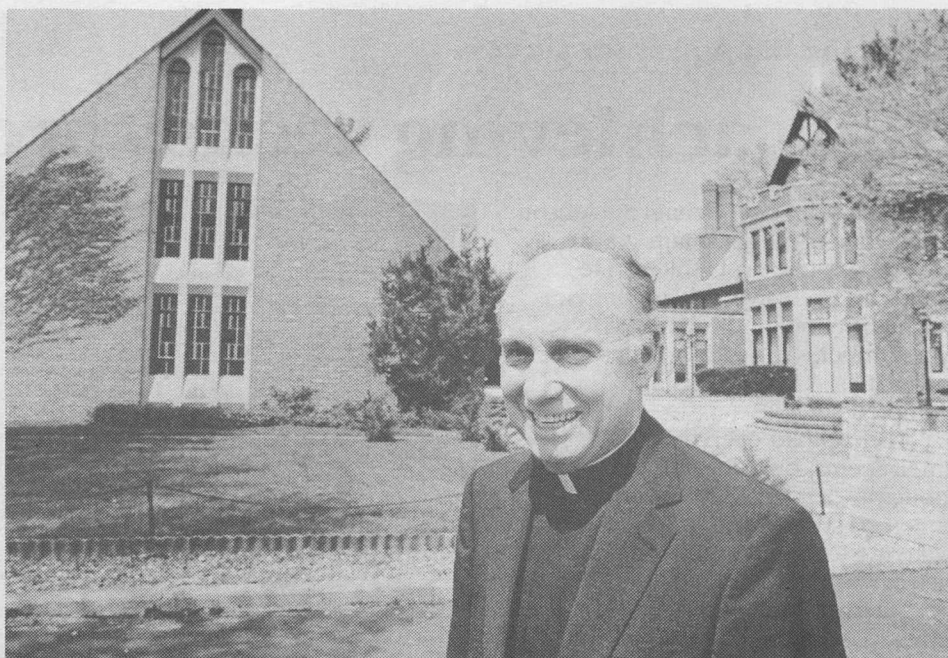
J. Gershon Spector, M.D., professor of otolaryngology and editor of *The Laryngoscope*, the official publication of the American Trilogical Society Inc., has completed the redesign and restructuring of the journal. From among 90 publications participating in the 1989 Successful Magazine Awards contest, the journal was named the gold award winner in the scientific and scholarly division and the bronze award winner in the overall competition, finishing behind *Archeology* and *The Nation*. Winners were announced in April at the annual meeting of the Successful Magazine Publishing Group in Atlanta, Ga. Entries were judged by a group of independent publishing experts and the journalism faculty at the University of Alabama for overall excellence in writing, editing, design and art work. The journal is in its 94th year of publication.

Donald R. Stone, business manager for the Department of Radiology, has been elected president of the Greater St. Louis Chapter of the Healthcare Financial Management Association (HFMA) for its fiscal year beginning May 1, 1989. The national HFMA has 75 chapters throughout the United States with approximately 30,000 members.

Jerold W. Wallis, M.D., assistant professor of radiology, presented "Three-Dimensional SPECT Display" at the Society of Nuclear Medicine's SPECT Symposium, held in New Orleans.

Have you done something noteworthy?

Have you: Presented a paper? Won an award? Been named to a committee or elected an officer of a professional organization? The Washington University Record will help spread the good news. Contributions regarding faculty and staff scholarly or professional activities are gladly accepted and encouraged. Send a brief note with your full name, highest-earned degree, current title and department along with a description of your noteworthy activity to Notables, Campus Box 1070, or by electronic mail to p72245SS at WUVMC. Please include a phone number.



Farewell: Monsignor Gerard N. Glynn, who opened the self-supporting Newman Center for Washington University students in the early 1950s, is retiring after 38 years as the Catholic chaplain at the University. He and six Catholic chaplains from other non-Catholic schools got together and set in motion the Newman movement, which today is thriving on campuses nationwide, including Washington's. In addition to providing religious programs and counseling services, the Catholic center also offers social and cultural activities for students of all denominations at Washington. Under Glynn's guidance, the students associated with the center have become involved in many social service activities. Through an Outreach group, the students help the elderly, the poor, and needy children in St. Louis. Among their activities, they winterize homes for those in need, hold dinner/dances for senior citizens at St. Vincent's Parish in the inner city, serve food in soup kitchens and visit orphanages. A reception for Glynn will be held April 30 from 3 to 7 p.m. at the Newman Center.

AIDS task force aims to educate

From spotlighting the story of a person living with AIDS, to disseminating printed materials on the deadly disease, a Washington University task force is sensitizing the University community about AIDS.

The AIDS Task Force, which boasts approximately 30 members, comprises Washington faculty, students and staff.

Madge Treeger, a counselor with the Student Counseling Service, and Mary Parker, M.D., associate professor of preventive medicine and director of University Health Services, formed the group in 1987 "to educate members of the University community about AIDS so they can make informed decisions about their own behavior and be sensitive to issues surrounding the problem," according to Treeger, who serves as co-director of the task force with Tammy M. Gocial, a coordinator of student activities.

The task force is strictly designed as an educational tool. It does not set policy. The Washington University Committee on AIDS, headed by J. Russell Little, M.D., professor of medicine and of microbiology and immunology, is the policy-making group for the University.

To achieve their goal, task force members have sponsored several AIDS programs this academic year. On March 1, the group held a dialogue titled "Do You Know Someone With Aids?...You Will!" The event featured talks by a person with AIDS and a volunteer for St. Louis Effort for AIDS.

Gocial thinks the talks raised awareness about AIDS. "A lot of people came to realize that, five years from now, they may have a friend,

sister or brother with AIDS. It is not a discriminating disease."

The AIDS task force also co-sponsored the Feb. 21 Assembly Series speech by Jonathan Mann, director of the World Health Organization's Global Programme on AIDS.

Suzanne Landolphi, an actress, filmmaker and volunteer for the Fenway Community Health Center in Boston, gave an AIDS presentation sponsored by the task force to nearly 600 people last November in Edison Theatre. "The audience was absolutely captivated," notes Treeger.

Other task force activities have included distributing Valentinegrams in residence halls and throughout key campus locations. The Valentinegrams contained resource information about AIDS. The organization also has sponsored numerous AIDS programs for students living in residence halls, sororities, fraternities, resident advisers and at freshman orientation. In addition, the task force was instrumental in securing condom machines for the residence halls.

"The AIDS Task Force is the most energetic and committed group I've worked with on campus," says Treeger. "We plan to continually keep this issue alive throughout the school year and introduce it in all areas of the students' educational experience."

"Although education remains our major goal, we've reached a point now where our students can take what they know and reach out to the community and do volunteer work. They can be a liaison to the community. That's the direction we hope to take next year."

For more information, call Treeger at 889-5980 or Gocial at 889-5994.

NEWSMAKERS

Washington University faculty and staff make news around the globe. Following is a digest of media coverage they have received during recent weeks for their scholarly activities, research and general expertise.

The 1986 overhaul of the federal income tax system was supposed to make things simpler, but instead it sent millions more Americans to tax preparers, says an article in the March 19 issue of *Newsday*. The article

mentions a recent study conducted by Richard McKenzie, Ph.D., adjunct fellow at the Center for the Study of American Business, and a colleague that shows that most middle-income families did not benefit from the overhaul — they paid the same amount of taxes as before the tax reform. The study also predicts that some families with incomes over \$200,000 will pay sharply lower taxes for 1989 than for 1987.

MEDICAL RECORD

Sacrificing happiness for success

High achieving teens' problems often overlooked

Seventeen-year-old Michael Stevenson (a fictitious name) is smart, good-looking, popular and athletic. He attends an exclusive college preparatory high school and is being courted by a number of private colleges and universities. A few weeks ago, he attempted suicide.

Michael had everything going for him, it seems, but himself. Despite his popularity, a solid A average, and numerous sports awards, he can't shake the feeling that he just doesn't measure up.

Michael's one of a growing number of bright young people — high achievers — whose need to succeed is so great that they throw themselves into a sort of competitive overdrive, says pediatric psychologist Peter Ambrose Jr., Ph.D. It's a phenomenon that Ambrose has observed in his practice at the Pediatric Psychology Center at the School of Medicine, and one that he suspects is occurring more and more across the country. These young people are so intent on meeting their goals that they refuse to acknowledge their limitations, often-times pushing themselves to succeed even when they may be out of their league.

These are teenagers, often from upper-class families, who by most standards have it all, or at least the potential for having it all, Ambrose says. But the standards they set for themselves are impossibly harsh. "These teenagers — especially those in competitive upper-echelon schools — are very bright, but they compare themselves with peers who may be even more intelligent and then start to feel there is something wrong with them, that they can't make the grade," Ambrose says.

"We assume their lives are rosy. Nobody expects these kids to have problems, so nobody is helping them."

— Peter Ambrose

The feelings of inadequacy can grow, he points out, culminating in a host of emotional problems, from anxiety disorders to full-blown depression and tragically at times to suicide attempts. Precisely because of the obvious advantages in their lives, these upper-echelon achievers "fall through the cracks," Ambrose says. "We assume their lives are rosy. Nobody expects these kids to have problems, so nobody is helping them."

While this is by no means an epidemic, Ambrose says, he can walk into almost any elite academic program and find a handful of teenagers who fit this description.

Some degree of competition is good, Ambrose comments. Otherwise, young people wouldn't be stimulated to excel. However, parents should be prepared to step in, he adds, when competitiveness exceeds a healthy level.

"Basically you're looking for symptoms of depression or anxiety. The most obvious one is social with-



To help teens conquer feelings of inadequacy, Peter Ambrose, Ph.D., works with the teens as well as their parents.

drawal — usually the bright kids who are unhappy have fewer peers. It's okay to be non-traditional or anti-establishment, but when you see an adolescent has no friends or little social contact, there could be a problem. Parents should look for teenagers withdrawing from their friends and withdrawing from their families," Ambrose says. He also advises watching for changes in their daily schedules. This would include disturbed sleeping or eating patterns, and of course signs of drug or alcohol use. Many times they may also give up activities that were once pleasurable.

It's okay if a child who loves piano suddenly stops playing it to study for an algebra final, he says but points out, if the sacrifice is a permanent one, made simply to survive, then priorities need to be reevaluated.

"Sometimes parents have to be the watchdog. If these children are compromising their health, like living on three hours sleep a night, then the parents need to make a stand. If they are compromising their social life, the parents may need to be more involved. Obviously, you can't tell a teenager 'I want you to go out, it's Friday night.' But you can say, 'Look, I don't think you need to study every night of the week until 2 o'clock. Unless there's a final exam, the lights go off at 11.'"

Unfortunately, over-achieving teenagers often base their criteria for success on parental expectations. "It's a double-edged sword. How much do you push your kids? How much should you expect from them? In the long run, the question should be, what do your kids want for themselves?"

Well-meaning parents often put too much emphasis on their children being successful, rather than happy, Ambrose notes. The classic example, he offers, is the parents who insist on

an Ivy League school because they want the best for their child, and the best education will help them land the best job. Whether intentionally or not, he remarks, parents program their children early that there are certain criteria for success.

"To some parents, being a professional — whether it's judge, doctor, professor, or what — is important. In other families being a CEO is better because monetary status is more important. Parents need to learn that their influence early on does stay with these kids," Ambrose stresses.

"Sometimes parents have to be the watchdog. If these children are compromising their health, like living on three hours sleep a night, then the parents need to make a stand."

— Peter Ambrose

Inevitably, young people functioning merely to please their parents will end up feeling unhappy and unequal to the task, he says. These children set very certain and strict, often unattainable, criteria for success: scoring 600 on the SATs or ranking in the top 10 percent of a very competitive class. Parents frequently don't realize the pressure their children feel in trying to live up to values that don't fit their own goals, he notes.

"At some point parents need to ask themselves, 'Whose life is this?'"

Most parents will tell you they want their children to have everything they didn't have. That's an admirable sentiment, but the pressure shouldn't be for them to have 10 times as much."

Parents can best help by providing their children with opportunities and support from which to make their own decisions, Ambrose says. "Teenagers need a reasonable grade average, and they need the truth. If they really do want to go to medical school, they need to know that their competition is working hard, and does have the 3.75 grade average and the 600 SATs." With this information available teenagers can make educated decisions on how much they are willing to sacrifice.

Parents should have expectations of their children, and should encourage them to excel, Ambrose says, but they should not choose the competitive arena. While grades are important, kids should know academics are not the only measure of their worth, he reminds. And, he says, they should be encouraged to develop other talents — art, music, cooking, athletics — that can be a source of confidence.

Ultimately, he says, parents must teach their children to believe in themselves. "Whenever a child tells me 'I can't do that,' I usually try to find an example of where they have done it under other circumstances, or more importantly, when they've done something more difficult. I try to make them realize that we all have our limitations, and it's time to start enjoying what they can do."

"Really, what parents should establish is an environment where their children are rewarded for effort and perseverance. If children are allowed to fail, they are also allowed to succeed."

Joni Westerhouse

Scientists to study HIV prevalence in drug users

A scientist at the School of Medicine has received funding to conduct the first study in the St. Louis area on the prevalence of HIV infection in intravenous drug users and their needle-sharing and sexual partners.

The three-year study is being directed by Linda B. Cottler, Ph.D., an epidemiologist with the Department of Psychiatry. Cottler, a research instructor, will receive a total of \$797,000 from the National Institute on Drug Abuse for the project.

Until now, there have been no studies in St. Louis to determine the prevalence of HIV infection in drug users, Cottler says, because of the area's relatively low number of reported AIDS cases. However, research and educational efforts elsewhere in the country have begun to focus on IV drug users, she notes, since educational programs have stabilized the rate of new HIV infections among homosexuals.

The St. Louis study will follow some 650 subjects, including 300 IV drug users, 150 non IV drug users and 200 sex partners. In addition to studying prevalence of HIV infection, Cottler will evaluate risk factors for HIV infection — particularly the co-occurrence of psychiatric symptoms, other substance abuse, needle-sharing, personality, and high-risk sexual behaviors — to better target public education efforts.

Ultimately she hopes to determine whether education can help change high risk behaviors and thus reduce the incidence of HIV infection in this study population.

Participants for Cottler's project will include prisoners and prostitutes, as well as clients in area drug treatment programs. Sexual partners will be recruited as well.

British editor to deliver Brodman lecture

Stephen P. Lock, M.D., F.R.C.P., editor of the British Medical Journal, will deliver the ninth annual Estelle Brodman Lecture May 9 at the School of Medicine.

The lecture, "Twenty-five Years of Publishing the British Medical Journal: Ethics, Authorship, Peer Review and Challenge of the New Electronic Media," will begin at noon in Cori Auditorium.

Lock has been editor of the British Medical Journal since 1975. Trained as a hematologist, he served on the staffs of London teaching hospitals before being appointed assistant editor of the journal in 1964. He became deputy editor in 1974 and was a medical correspondent to the BBC Overseas Service from 1966 to 1974.

Lock's special interest is medical writing and biomedical communication, including evaluating scientific information, the role of peer review, the editing process, and the impact of new information technology. He has taught many courses in medical writing in Britain, Finland, Iraq, Kuwait, Canada and Australia.

The Estelle Brodman Lecture is sponsored by the School of Medicine Library in honor of Brodman, who served as library director and professor of medical history at the School of Medicine from 1961-81.

For more information on the lecture, call 362-2773.



Aloha: Students at Central Institute for the Deaf (CID) practice a hula dance during their dress rehearsal for CID Follies and Fashions International, a program held April 21 in Edison Theatre to celebrate the school's 75th anniversary. The children modeled fashions from Famous-Barr and performed skits, songs and dances with an international theme. Proceeds from ticket sales will benefit the school's scholarship fund. CID, founded in 1914, is known internationally for teaching deaf children to talk.

Brown to co-direct infectious diseases division

Eric J. Brown, M.D., has been named director of the newly created research section of the division of infectious diseases at the School of Medicine.

Brown is associate professor of microbiology and immunology, and of cell cell biology and physiology. The appointment, effective July 1, was announced by David M. Kipnis, M.D., head of the Department of Internal Medicine.

Brown will serve as co-director of the Division of Infectious Diseases with Gerald Medoff, M.D. Medoff, who has headed infectious diseases since 1972, will devote fulltime efforts to directing the division's clinical section.

A professor of microbiology and immunology, Medoff is also co-principal investigator of the School of Medicine's federally funded AIDS Clinical Trials Unit.

Brown joined the faculty in 1985 as associate professor of medicine and microbiology and immunology. He was named associate professor of cell biology and physiology in 1988.

His research focuses on the body's defenses against infection. Specifically, he studies phagocytosis, a mechanism by which certain cells ingest and digest other cells, bacteria, bits of dead tissue, and foreign particles. He is especially interested in

how signals in the body regulate and stimulate phagocytosis, because abnormalities in this process may explain genetic diseases that are characterized by increased incidence of infections.

Brown received his medical degree from Harvard Medical School in 1975, then served an internship and junior residency at Beth Israel Hospital in Boston. His postdoctoral training includes eight years with the laboratory of clinical investigation at the National Institute of Allergy and Infectious Diseases, part of the National Institutes of Health. He has published numerous papers on his research.

Beyer chosen as first McDonnell Scholar in cancer research

Eric C. Beyer, M.D., will serve as the School of Medicine's first McDonnell Scholar in Cancer Research.

Beyer, who will join the faculty July 1, recently was named a 1989 McDonnell Scholar by the James S. McDonnell Foundation's Program for Molecular Medicine in Cancer Research. His appointment brings with it a three-year, \$375,000 grant that will enable him to pursue his research in oncology.

The McDonnell Foundation's program was established this year to develop physician-investigators who will apply techniques of modern biology to problems in clinical oncology. It supports young physicians who have demonstrated superior potential for original basic research as well as an interest or training in oncology.

The award serves as a bridge between postdoctoral training and independent faculty status. Recipients are not expected to assume clinical service or teaching duties during the period of the award, but are encouraged to devote most of their time to the development of independent research in an environment where senior researchers are available for support.

Beyer's work focuses on molecules on cell surfaces that are involved in cellular communication, adhesion, and development. Using the tech-

niques of molecular and cellular biology, he has isolated membrane proteins that form tunnel-like structures between cells. These "gap junctions" play a role in passing between cells small molecules involved in metabolic support, growth control, and the development of embryos. In the heart, they permit electrical communication from one muscle cell to another. Beyer plans to study the synthesis and assembly of the gap junction proteins and to analyze their role in cell to cell communication in normal and cancer cells.

Currently Beyer is an instructor of pediatrics at Harvard Medical School. He also serves as an assistant in medicine at The Children's Hospital and as a clinical associate at the Dana Farber Cancer Institute. Since 1985, he has been a research fellow at The Children's Hospital, the Farber Cancer Institute, and the departments of pediatrics and anatomy and cellular biology at Harvard Medical School.

Beyer received his doctorate in physiology and pharmacology in 1981 and his medical degree in 1982 from the University of California in San Diego. His postdoctoral training includes an internship and residency in pediatrics at The Children's Hospital, and a clinical fellowship in pediatric hematology and oncology at The Children's Hospital and the Farber

Cancer Institute. He has received numerous awards and honors for his research, including the 1987 American Heart Association's Clinician Scientist Award.

The McDonnell Foundation's \$10 million Program for Molecular Medicine in Cancer Research, one of the largest of its kind in the nation, will support 25 scholars over the next four years. Scholars are selected by the foundation's trustees with assistance from a national advisory committee chaired by Philip W. Majerus, M.D., professor of biological chemistry and medicine and co-director of the division of hematology-oncology at Washington University School of Medicine.

The James S. McDonnell Foundation was established in 1950 by the late aerospace pioneer who guided the McDonnell Douglas Corporation from 1939 until his death in 1980. The foundation awards millions of dollars in grants annually to support programs in the biological and medical sciences, education, and international affairs.

The School of Medicine's McDonnell Center for Cellular and Molecular Neurobiology, McDonnell Center for Higher Brain Function, and Center for Genetics in Medicine were all made possible by grants from the McDonnell Foundation.

MEDICAL RECORD



Healthy babies: Second-year medical student Susan Benfield (left) chats with Sylvia Brown and her daughter, Erica, at the Perinatal Project birthday party held April 21 at the medical center. The party was held to celebrate the births of babies born during the course of the year-old program, which matches pairs of students from the School of Medicine with low-income pregnant teenagers who are clients of People's Health Centers. The students go regularly to the teenagers' homes offering medical advice, moral support and assistance in securing community resources. The goal of the program is to decrease the St. Louis infant mortality rate by helping young women achieve healthy pregnancies and have healthy babies.

\$1.1 million granted for study on atherosclerosis

The director of the Lipid Research Center at the School of Medicine has been awarded a \$1.1 million grant to study the role of certain blood proteins in causing atherosclerosis.

The grant, from the National Institutes of Health, was awarded to Gustav Schonfeld, M.D., Kountz Professor of Medicine in the Department of Internal Medicine.

The grant will support a project titled "Metabolism of Genetic Variants of Apolipoprotein B." The study will involve looking for variants of the blood protein that are responsible for carrying cholesterol and triglycerides, with a goal of finding the structure-function relationships of apoB and its role in atherosclerosis.

In addition to directing the Lipid Research Center, Schonfeld is head of the metabolism division at Jewish Hospital and on staff at Barnes Hospital, both sponsoring institutions of the Washington University Medical Center.

A 1956 graduate of Washington University and a 1960 graduate of the School of Medicine, he joined the faculty in 1968 as an assistant professor of medicine. He became a full professor in 1977 and was named Kountz professor in 1987.

Schonfeld belongs to many professional societies, including the Association of American Physicians, the American Society for Clinical Investigation, the American Society of Biological Chemists and the Council on Atherosclerosis, American Heart Association. He is a diplomate of the American Board of Internal Medicine and a fellow of the American College of Physicians. He serves on the editorial boards of several journals, and is an associate editor of the journal *Circulation*. He is author or co-author of more than 130 papers.



Gustav Schonfeld

Olson named to genome advisory committee

Maynard V. Olson, Ph.D., professor of genetics at the School of Medicine, has been chosen as one of 12 members of the National Institute of Health's (NIH) Program Advisory Committee on the Human Genome.

The committee will advise the NIH and its associate director for human genome research, Nobel Prize-winning scientist James D. Watson, Ph.D., on the new NIH initiative to map and sequence the human genome. Watson and his colleagues won the Nobel Prize in 1962 for their discovery of the molecular structure of DNA.

Olson is associate director of Washington University's Center for Genetics in Medicine. He is renowned for his innovative method of cloning

human DNA in yeast cells, a technique which allows larger unique fragments of human DNA to be cloned and purified than was previously possible. His work plays a significant role in the effort to piece together the human genetic puzzle by mapping and sequencing the entire human genetic structure. Scientists think that doing so could lead to the determination of the genetic basis for as many as 3,500 diseases caused by genetic mutation, as well as possible ways to diagnose, correct and prevent many genetic disorders.

Olson will serve a four-year term on the committee, which includes members from academia, industry, and non-profit organizations. The goals of the committee include the training of

scientists, the coordination of the program with private sector resources, the management of the massive data processing and storage requirements that will be necessary to handle the knowledge gained through the program, and the consideration of ethical and legal issues that may arise.

It is estimated that the total cost of the human genome initiative could be \$3 billion over the next 20 years. President George Bush has allocated \$100 million to the NIH in fiscal year 1990 for this project.

Olson came to the School of Medicine in 1979 as an assistant professor of genetics, and was named professor in 1987. He received his doctorate in chemistry from Stanford University in 1969.

Immune system expert Herman Eisen to give Lowry lecture

Herman N. Eisen, M.D., an expert on immune system responses to disease, will deliver the 12th annual Oliver H. Lowry Lecture in Pharmacology May 11 at the School of Medicine.

The lecture, open to all members of the medical profession, will begin at 4 p.m. in the Carl V. Moore Auditorium, 660 S. Euclid Ave. Eisen will discuss cytolytic, or killer, T Cells, antibodies that are capable of dissolving or destroying other cells.

Eisen, a former member of the Washington University faculty, is Whitehead Institute Professor of Immunology at the Massachusetts Institute of Technology (MIT). He has played a major role in defining the biochemical and molecular basis for the immune system's recognition and

response to viruses, microorganisms and other disease-causing substances.

He was recruited to the Department of Dermatology at Washington University School of Medicine in 1955, and from 1960-73 served as professor and chairman of microbiology and immunology. He left St. Louis in 1973 to develop a program in immunology at the Massachusetts Institute of Technology, where he has turned his efforts to understanding the basis for recognition and response to pathogens by the cellular arm of the immune system.

Eisen received his bachelor's degree Phi Beta Kappa in 1939 and a medical degree in 1943 from New York University. After further clinical and scientific training at Columbia

University, he joined the faculty of industrial medicine at New York University in 1949.

The Lowry Lecture is sponsored by the Department of Pharmacology to honor Oliver H. Lowry, M.D., Ph.D., distinguished professor emeritus and lecturer. Lowry served as head of the department from 1947-76 and as dean of the School of Medicine from 1955-58. Since February, he has been serving as interim head of the Department of Pharmacology. An internationally known histochemist, his discoveries have widely influenced research in medical science, particularly in the areas of neurobiology, muscular dystrophy, mental retardation and biochemistry.

Parkinson's disease exercise class has openings

The Parkinson Exercise class, sponsored by the Irene Walter Johnson Institute of Rehabilitation at the School of Medicine and the Greater St. Louis Chapter of the American Parkinson Disease Association, is accepting new enrollees.

The class is a professionally supervised outpatient program of group exercises and activities designed to address the problems encountered by those with Parkinson's disease and their families.

The group classes emphasize good posture, deep breathing and practical daily activities. Activities also stress improved coordination and walking.

Goals of the program are to improve functional mobility, motivate patients to exercise regularly, encourage family support, promote socialization and improve self-help skills.

Participation is open to any patient with Parkinson's disease with the approval of their physician. Participants may attend class once or twice a week on a monthly fee basis. Cost is \$60 per month.

For more information, call Linda Hunt at 362-2370.

PERSONNEL NEWS



Staff Day '89: Jeanne Hauser (left) and Debbie Lydon, both of the School of Fine Arts, had fun playing bingo at last year's Staff Day. In addition to bingo, this year's Staff Day, which will be held Monday, May 22, will feature softball, volleyball, wallyball, Win/Lose or Draw, a live band and a complimentary buffet luncheon for Washington University's nonacademic employees. The 14th annual Chancellor's Staff Day will begin at 11 a.m. with a service awards ceremony in Edison Theatre, followed by the luncheon at noon in Bowles Plaza. Winning teams in the afternoon softball, volleyball and wallyball competitions will receive trophies, and winners in the craft show will receive plaques. Bingo and Win/Lose or Draw contestants will compete for various prizes. An award also will be given for the "Best Dressed" Department. Individuals will be able to swim in both the Millbrook outdoor pool and the Millstone indoor pool, as well as play tennis at the Tao Tennis Center. For more information about Staff Day '89, call the Personnel Office at 889-5990.

Tuition benefits available to employees are outlined

Effective July 1, 1985, the following non-taxable tuition benefits are available to full-time faculty, administrators and staff after five full years of continuous service.*

1.) Education benefits are available to children who are dependent on a parent who is a full-time member of the University. Such children must meet the normal admission standards of Washington University.

a. Those who do may attend any undergraduate division of the University on a tuition-free basis.

b. Additionally, full-tuition remission is available to the children of eligible personnel for pursuing pre-baccalaureate studies in University College.

The total period of financial aid at Washington University and other schools may not exceed eight semesters, or the equivalent. Such financial assistance also is available to the children of faculty members, administrators and staff members who died while full-time employees of the University or were on leave, including disability leave. It also is available to the children of retired faculty members, administrators and staff members who were full-time employees of the University.

2.) After five full years of continuous service* the spouse of any full-time member of the University who meets the normal admission requirements may enroll in Washington University in an undergraduate program or in individual undergraduate courses at half the then stated tuition rate. This also applies to undergraduate courses taken in the Unclassified Undergraduate Program.

3.) Any full-time faculty, administrative, professional and staff member or spouse who meets the normal admission standards may enroll in regularly scheduled courses in University College at one-half the then stated tuition rate, except for a few courses in which enrollment must be limited because of the facilities that are available. A reasonable maximum load normally is seven credit hours; enrollment by an employee for more than seven hours requires special approval.

4.) In addition, after seven full years of continuous service* tuition of not over half of the then current Washington University tuition, and not in excess of the tuition and required academic fees of the college or university attended, whichever is less, is also available to such children who choose to attend undergraduate programs at other accredited colleges or universities.

The full-time member must

establish eligibility for each individual child through the Personnel Office. The staff member or spouse must establish his/her eligibility through the Personnel Office. Employees or spouses enrolling in University College are approved for one-half tuition at the time they register.

*Full-time service at other institutions of higher education may be counted to meet the eligibility requirement.

Accessibility guide is updated

The Office of Physical Facilities in coordination with the Committee on University Policy and Practice Affecting the Disabled published a brochure last fall indicating accessibility to facilities on the Hilltop Campus for mobility impaired persons. The following list updates the Guide to *Handicapped Accessibility* — *Hilltop Campus*.

-Coordinator for Handicapped Services relocated to fully accessible Mallinckrodt Center.

-Additional curb cuts — approximately 20 curb cuts, and permanent ramps installed.

-Handicapped parking spaces marked as required by local codes and ordinances.

-Modification of selected restrooms has taken place: men's room on first floor of Alumni House; women's room in South Brookings; unisex room on first floor of Whittemore House; men's room, basement of Wilson Hall; unisex room, Umrath Health Service; January Hall; Brown Hall; Busch Hall; Olin Library; Eliot Hall and Mallinckrodt. In addition, all new and recently renovated buildings have restrooms accessible by the handicapped.

-Health Service exterior access ramp has been designed and is scheduled for installation. A chair lift specified and to be installed during the summer of 1989.

-Graham Chapel accessible to handicapped via a permanent ramp and via a temporary ramp.

-Alumni House first floor and basement accessible via separate entrances.

-Blewett B Hall first level accessible.

-Brown Hall all levels accessible.

-Busch Hall basement and first floor accessible.

-Cupples Hall I, Mathematics Library accessible at courtyard level. Computer Service accessible at basement level.

-Eads Hall basement level accessible.

-Eliot Hall accessible from campus side (south side) via a ramp.

-Faculty Club first floor accessible; unisex rest room available.

-Francis Gymnasium accessible to handicapped.

-January Hall basement and first floor accessible from different entries.

-Louderman Hall all three levels accessible via southeast entry of McMillen Lab.

-Mudd Hall part of first floor accessible from campus side. The remainder of Mudd accessible from Throop Drive. Inner campus accessed via Mudd elevator to G level, across breezeway to Eliot elevator to second floor, exit onto deck area to campus.

-South Brookings Hall basement level accessible to handicapped. Access ramp to first floor of South Brookings scheduled for installation.

-Steinberg main floor accessible.

-Wilson Hall ground level auditorium accessible to handicapped.

-Wohl Center accessible via two entries.

Copies of the guide may be obtained from the Office of Physical Facilities.

Retirement annuity contributions can be changed on July 1

Participants under the retirement annuity may change their tax-deferred contribution on July 1, 1989. Eligible non-participating employees may consider enrolling in the retirement annuity at this time.

The retirement plan comes under the Internal Revenue Code, which limits the annual amount of your tax-deferred contribution to up to \$9,500 and the number of salary reduction agreements to one agreement per year.

Under tax reform, there is also a \$30,000 annual limit on combined employer/employee tax-deferred and after-tax contributions.

The minimum contribution to qualify for the University contribution under the basic plan is 5 percent. The percentage of University contribution is based on the participant's age as of July 1 of each year. The contributions for those employees attaining 5 years of service will be based on their salary as of July 1 of each year. Their contribution schedule follows:

Annual Earnings	Required Contribution
Less than \$20,000	Waived
\$20,000 but less than \$22,500	1%
\$22,500 but less than \$25,000	2%
\$25,000 but less than \$27,500	3%
\$27,500 but less than \$30,000	4%
\$30,000 and over	5%

Contributions for union employees are determined in accordance with the contract agreement between the University and the union.

If you desire to contribute a tax-deferred amount in excess of the general limits, it is necessary to have a calculation done by the Payroll Office.

Additional investment options to TIAA/CREF are available under the Supplemental Retirement Plan through the Vanguard Group of Investment Companies and TIAA/CREF. Enrollments in Vanguard, including transfers to Vanguard, must be made effective on July 1 of each year, except for new employee enrollments.

For more information or forms, contact the following people: Hilltop Campus, Bill Maurer (academic) and Sylvia Pedrole (nonacademic), 889-5990, Box 1184; Medical School Campus, Jane Schindler (academic) and Mary Walsh (nonacademic), 362-7194, Box 8002; and Dental School, Carol Komor (academic and non-academic), 454-0350, Box 8100.

Staff openings

Qualified candidates are being sought to fill secretarial, clerical and technical positions. Current staff openings on the Hilltop Campus follow:

Accountant, 1 position; Administrative Assistant, 3 positions; Area Coordinator, 2 positions; Biology Lab, Research, and Technician, 7 positions; Buildings Supervisor, 1 position; Librarian, 5 positions; Library Assistant, 3 positions; Programming, 1 position; Secretarial/Clerical, 11.

Information about these and other positions is available through the Hilltop Campus Personnel Office, 889-5990, and the Medical Campus Personnel Office, 362-7195.

Personnel News

Personnel News appears monthly in the Record and is prepared by Gloria W. White, vice chancellor for personnel and affirmative action, and other members of the Personnel Office. Personnel News is designed to keep Washington University employees and their families informed of the benefits and opportunities available at the University.

CALENDAR

April 27-May 6

LECTURES

Thursday, April 27

2:30 p.m. Dept. of Mechanical Engineering Colloquium, "U.S. Air Force Experience With Damage Tolerance," John W. Lincoln, technical expert, U.S. Air Force, Wright-Patterson Air Force Base, Ohio. 100 Cupples II.

4 p.m. Dept. of Chemistry First Jack Marcus Colloquium, "Biophysical Approaches to the Roles of Signal Sequences in Protein Export," Lila Gierasch, Dept. of Chemistry, Southwest Medical Center, U. of Texas. 311 McMillen.

4 p.m. Dept. of Pathology Seminar, "Contributions of Non-catalytic Sites to the Inhibitor and Substrate Specificity of Physiological Proteinases," Glen L. Hortin, instructor, WU Dept. of Pediatrics. 3rd floor aud., Children's Hospital.

4:30 p.m. Dept. of Mathematics Colloquium, "Interpolation of Operators in Mixed Normed Spaces," Satoru Igari, prof. of mathematics, Tohoku U., Japan. 203 Cupples I.

8 p.m. Dept. of English Colloquium, "Utopianism and Modernity in 18th-century Britain: A Discourse on Corruption and Enthusiasm," Gregory R. Claeys, WU assoc. prof. of history. Hurst Lounge, Duncker Hall.

Friday, April 28

10 a.m. Oral Examination for the Doctoral Degree for Jane Goldmuntz Grady, Dept. of Psychology. Dissertation title: "Self-handicapping, Self-esteem and Performance Effects." 115 Eads.

Noon. Dept. of Cell Biology and Physiology Seminar, "Na, K-ATPase Structure and Function," Robert W. Mercer, WU asst. prof. of cell biology and physiology. 4914 S. Bldg.

Noon. Democratic Socialists of America, WU Local, Lecture, "Does Socialism Have a Future in Vietnam?" Joel Glassman, prof. of political science, U. of Missouri, St. Louis. Co-sponsored by the Asian Studies Program. Lambert Lounge, Mallinckrodt Center.

3 p.m. Oral Examination for the Doctoral Degree for Marilyn Frances Maracle, Dept. of Sociology. Dissertation title: "Beyond Abstinence, a Study of Recovery Among Women in Alcoholics Anonymous." 140 McMillan.

3 p.m. Dept. of Cell Biology and Physiology Seminar, "The 1988 Summer Olympics — A Head Physician's Perspective," James C. Puffer, head physician of U.S. Summer Olympics, U. of California, Los Angeles. Erlanger Aud., McDonnell Medical Sciences Bldg., 4565 McKinley.

Monday, May 1

8:30 a.m.-5:30 p.m. Center for Molecular Design Symposium, "Computer-aided Drug Design." Co-sponsored by the St. Louis NMR Discussion Group. 458 Louderman. For more info., call 362-2286.

Noon. Craniofacial Biology Seminar, "Migrating Muscles: Interrelationship of Muscle Formation Function and Skull Growth," Susan Herring, U. of Chicago Medical School. 237 Dental School, 4559 Scott Ave.

4 p.m. Immunology Research Seminar, "CD8 Dependent and Independent Pathways of T Cell Selection and Activation," John Russell, assoc. prof., WU Dept. of Pharmacology. 3rd floor aud., Children's Hospital.

7 p.m. Assembly Series Lecture, "Naguib Mahfuz and the Arabic Novel: The Historical Context," Roger Allen, prof. of Arabic literature, U. of Pennsylvania. Co-sponsored by the Dept. of Asian and Near Eastern Languages and Literatures. Hurst Lounge, Duncker Hall.

Tuesday, May 2

9 a.m. Dept. of Psychiatry Edwin F. Gildea Lecture, "Temporal Anomalies and the Architecture of Consciousness," Daniel C. Dennett, Distinguished Arts and Sciences Professor and dir., Center for Cognitive Studies, Tufts U., Medford, Mass. Clopton Aud., Wohl Clinic Bldg., 4950 Audubon.

9:45 a.m.-2:15 p.m. James L. O'Leary Prize for Research in Neuroscience Program Presentations. Cori Aud., McDonnell Medical Sciences Bldg.

1-3 p.m. Personnel Office Employee Training Session on Drug Abuse, John King, assoc. dir., National Council on Alcoholism and Drug Abuse. 458 Louderman. For more info., call 889-5990.

4 p.m. Cell and Molecular Biology Colloquium, "Assembly of Extracellular Matrix," Robert P. Mecham, WU assoc. prof. of cell biology and physiology. Erlanger Aud., McDonnell Medical Sciences Bldg., 4565 McKinley.

4 p.m. AIDS Clinical Trials Unit Pathogenesis of AIDS Scientific Series, "HIV Vaccine Development," Dani Bolognesi, Duke U. Medical Center. Cori Aud., McDonnell Medical Sciences Bldg., 4565 McKinley.



Final ovations: Edison Theatre closes its 15th anniversary "OVATIONS!" season with the San Francisco Mime Troupe performance of "Secrets in the Sand," a story that is loosely based on the 1954 making of the John Wayne movie "The Conqueror" near an atomic test site in Utah. Recognized as America's finest political theatre company, the Tony Award-winning troupe will perform at 8 p.m. April 28 and 29 in Edison. For ticket information, call 889-6543.

Wednesday, May 3

1 p.m. Neuroscience Luncheon Seminar, "Changes in Muscle Stiffness Produced by Contraction of Different Type Motor Units," G. C. Hunt, prof., WU Dept. of Neurology and Neurosurgery. 928 McDonnell Medical Sciences Bldg.

4 p.m. Div. of Biology and Biomedical Sciences Student Sponsored Seminar, "Cortical Representational Plasticity," Michael Merzenich, Dept. of Otolaryngology and Physiology, U. of California School of Medicine. Cori Aud., McDonnell Medical Sciences Bldg.

Thursday, May 4

4:10 p.m. Dept. of Philosophy Colloquium, "Interpretation of Texts, People and Other Artifacts," Daniel C. Dennett, Distinguished Arts and Sciences Professor and dir., Center for Cognitive Studies, Tufts U. Women's Bldg. Lounge.

Friday, May 5

Noon. Dept. of Cell Biology and Physiology Friday Noon Seminars, "Muscle Formation in Caenorhabditis elegans," Robert H. Waterston, WU prof. of genetics. 4914 S. Bldg.

2 p.m. Div. of Biology and Biomedical Sciences Special Seminar, "Single Neurons and the Perception of Visual Motion," William Newsome, Dept. of Neurobiology, Stanford U. Cori Aud., McDonnell Medical Sciences Bldg.

6 and 8:30 p.m. Washington University Association Travel Lecture Series, "Antique Trains of Europe," Ken Lawrence, radio and television announcer. Graham Chapel. For ticket info., call 889-5122.

Saturday, May 6

9 a.m. Saturday Morning Neural Sciences Seminar, "Long Term Potentiation," Steven Rothman, assoc. prof., WU Dept. of Pediatrics. Cori Aud., McDonnell Medical Sciences Bldg.

PERFORMANCES

Friday, April 28

8 p.m. Edison Theatre Presents San Francisco Mime Troupe, "Secrets in the Sand." (Also Sat., April 29, same time.) Edison Theatre. Tickets: general public \$16; \$12 for senior citizens, WU faculty and staff; \$8 for students. For more info., call 889-6543.

Saturday, April 29

10-11:15 a.m. Performing Arts Dept. Presents a Masterclass in Dance, taught by James Reedy, professional dancer, Eric Hawkins Co., New York City. Open to WU dance students only. Mallinckrodt Drama Studio. For more info., call 889-5858.

Friday, May 5

8 p.m. Edison Theatre Presents the St. Louis Dancers, "Personal Spaces," directed by Annelise Mertz, choreographer and WU prof. emeritus of dance. (Also Sat., May 6, same time, and Sun.,

May 7, at 2 p.m.) Edison Theatre. Tickets: general public \$15; \$10 for senior citizens, WU faculty and staff; \$7 for students. \$2 discount for all tickets bought in advance. For more info., call 889-6543.

MUSIC

Thursday, April 27

8 p.m. Dept. of Music Presents WU Mixed Choir Concert. Graham Chapel. For more info., call 889-5581.

Saturday, April 29

8 p.m. Dept. of Music Presents WU Chamber Choir Concert. Graham Chapel.

Sunday, April 30

4 p.m. Dept. of Music Presents WU Vocal Jazz Ensemble Concert featuring the WU Vocal Jazz Choir and the Kim Portnoy Trio. Steinberg Hall Aud. For info., call 889-5581.

Thursday, May 4

8 p.m. Dept. of Music Presents a Renaissance Flute and Harpsichord Recital featuring Nancy Hadden, Renaissance flute, and Charles Metz, harpsichord. Steinberg Hall Aud. For more info., call 889-5581.

EXHIBITIONS

"Washington University Permanent Collection." Through June 30. Gallery of Art, Steinberg Hall, lower gallery. 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. For more info., call 889-4523.

"Winning Entries of the Carl Neureuther Student Book Collection Competition." Through May 4. Olin Library, Special Collections (fifth floor). 8:30 a.m.-5 p.m. weekdays. For more info., call 889-5495.

"Remembrance Now: Ford Madox Ford (1873-1939)." May 5-August 11. Olin Library, Special Collections (fifth floor). 8:30 a.m.-5 p.m. weekdays. For more info., call 889-5495.

"Work of Joseph Allen Stein," a partner of Stein Doshi and Bhalla, Architects, New Delhi, India, and WU visiting prof. of architecture. Through April 28. First floor, Givens Hall. 9 a.m.-5 p.m. weekdays. For more info., call 889-6200.

"M.F.A. Exhibition, Part II." Through April 30. Gallery of Art, Steinberg Hall, upper gallery. 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. For more info., call 889-4523.

FILMS

Thursday, April 27

6 and 9 p.m. Filmboard Series, "Soldier of Orange." \$2. Brown Hall.

Friday, April 28

7 and 9:30 p.m. Filmboard Series, "Beverly Hills Cop." \$2. Brown Hall. (Also Sat., April 29, same times, and Sun., April 30, at 7 p.m., Brown.)

Midnight. Filmboard Series, "Woodstock." \$2. Brown Hall. (Also Sat., April 29, same time, and Sun., April 30, at 9:30 p.m., Brown.) On Fri. and Sat., both the 9:30 p.m. and midnight films can be seen for a double feature price of \$3; both Sun. films can be seen for \$3.

Monday, May 1

7 and 9:30 p.m. Filmboard Series, "Rebel Without a Cause." \$2. Brown Hall. (Also Tues., May 2, same times, Brown.)

Wednesday, May 3

7 and 9 p.m. Filmboard Series, "The Seventh Seal." \$2. Brown Hall. (Also Thurs., May 4, same times, Brown.)

SPORTS

Friday, April 28

1 p.m. WU Phi Delta Theta Fraternity Benefit Golf Tournament for the St. Louis Chapter of the ALS (Amyotrophic Lateral Sclerosis — Lou Gehrig's Disease) Association. Norwood Hills Country Club, 5601 Lucas and Hunt Road. Golfers will begin practice at 10 a.m.; luncheon at 11:30 a.m. Entry fee: \$150. For more info., call Mark Drexler at 863-6217 or 362-9224.

Saturday, April 29

1 p.m. Baseball, WU vs. Principia College (double-header). Kelly Field.

Sunday, April 30

1 p.m. Baseball, WU vs. Blackburn College (double-header). Kelly Field.

Tuesday, May 2

2 p.m. Baseball, WU vs. Maryville College (double-header). Kelly Field.

MISCELLANY

Thursday, April 27

5 and 8 p.m. Fashion Show featuring designs by 11 students in the WU fashion design program. Sponsored by Famous-Barr. Center of Contemporary Art, 524 Trinity Ave., University City. Tickets: \$5 for 5 p.m. show; \$8 for 8 p.m. show and reception. Tickets available at the door or can be purchased in advance in 101 Bixby. Students will sell their original designs from 1-7 p.m. Mon., May 1, in 200 Bixby. To make reservations or for more info., call 889-6515.

Friday, April 28

6:30 p.m. WU's Campus YMCA-YWCA Benefit Dinner. Julius Hunter, anchorman for television station KMOV, will speak. Washington University Club, 200 N. 4th St. Cost is \$50 a person. Proceeds will help fund 26 Campus Y student-led programs. To make reservations, call 889-5010.

Sunday, April 30

7:30 p.m. Hillel's Annual Holocaust Commemoration. Speaker: Ian Hancock, prof. of linguistics, U. of Texas, Austin, and representative of North American Gypsies, "Gypsies and the Holocaust: Before, During and After." The Rimón Israeli Dance Group also will perform. Hillel, 6300 Forsyth. For more info., call 726-6177.

Monday, May 1

9 p.m. Congress of the South Forty Sponsors "Comedy From the Funny Bone," featuring Bryan Burgess, comedian from California. Friedman Lounge. For info., call 889-5057.

Calendar Deadline

The deadline to submit items for May 18-27 calendar of the Washington University Record is May 5. Items must be typed and state time, date, place, nature of event, sponsor and admission cost. Incomplete items will not be printed. If available, include speaker's name and identification and the title of the event; also include your name and telephone number. Send items to King McElroy, calendar editor, Box 1070, or by electronic mail to p72245KM at WUVMC.