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Record

WASHINGTON
UNIVERSITY
IN ST. LOUIS

Vol. 20 No. 11 Nov. 2, 1995

Washington University enrolls multitalented Class of 1999

Washington University's total daytime enrollment for the 1995-96 academic year is 10,122. The total daytime enrollment last year was 10,169. This year's freshman class numbers 1,184, which is within the target set for 1995. It is a planned decrease from last year's 1,257 freshmen.

"One of our goals was to reduce the size of the entering freshman class in light of higher-than-expected enrollments in the prior two years," said Dennis J. Martin, associate vice chancellor and director of financial aid. "We're very pleased with the talents this year's freshmen bring."

The University received a record number of applications for admission (9,380) for the 1995-96 academic year — 22 percent more applications than were received last year, said John A. Berg, associate vice chancellor for undergraduate admission.

About 25 percent of this year's freshman class is made up of international and minority students. Another 7.5 percent either did not specify their race or listed themselves as multiracial.

"Although the number of applications from multicultural students increased significantly, we were hoping for a better yield than we had, and we are redoubling our efforts for next fall's class," Berg said.

The Class of 1999 is geographically diverse, with freshmen coming to the University from 47 states and 29 countries. About 46 percent of the freshmen hail from the Midwest; about 17 percent from the Middle Atlantic region; about 12 percent from the South; and about 13 percent from the West and Southwest.

About 46 percent of the 1,184 freshmen ranked in the top 5 percent of their

high school classes; about 67 percent in the top 10 percent; and about 88 percent in the top 20 percent. Eighty-three freshmen, or 7 percent, were ranked No. 1 in their high school classes.

In addition, about 205 freshmen were senior class officers at their high schools; about 645 were National Honor Society members; and about 335 were team captains in sports.

"We attracted another great freshman class with a broad range of talents," Berg said. "These students are making outstanding contributions to the Washington University community."

Financial aid plays an important role for the University's undergraduate students, Martin said. Nearly 60 percent of undergraduates receive some type of financial aid.

Just more than 50 percent of undergraduates receive federal, state and University grant support, not including student loans or part-time jobs. The total amount of grants received by University undergraduates exceeds \$28 million this year, with about \$26 million of that coming in the form of University scholarships.

"Washington University is maintaining its strong commitment to financial aid and its investment in talented students," Martin said.

The number of freshmen enrolled in the five schools with undergraduate programs is as follows: **Architecture**, 58; **Art**, 70; **Arts and Sciences**, 728; **Business**, 141; and **Engineering**, 187.

About 75 freshmen, included in the above numbers, are pursuing combined studies across disciplinary lines, Martin

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Dorsey D. Ellis Jr., J.D., dean of the School of Law, and Michael M. Greenfield, J.D., Walter D. Coles Professor of Law and chair of the building committee, review plans for the law school's new building, Anheuser-Busch Hall, during a recent tour of the construction site. The building, slated for completion by December 1996, will be made of Missouri red granite and trimmed with limestone. Inside, the law school will have state-of-the-art equipment and space for computers at every desk in the new library.

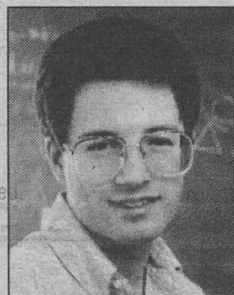
High-speed data transfer focus of research contract

Kenneth J. Goldman, Ph.D., assistant professor of computer science, has been awarded a three-year \$2.6 million contract from the Advanced Research Projects Agency (ARPA) for research on high-performance distributed multimedia computing.

The research will facilitate the development of computer applications that involve high-speed transmission of audio, video and other data between cooperating software components running on different computers across computer networks. The work is based on a new programming model, I/O Abstraction, which Goldman and his students have developed with support from the National Science Foundation.

The model is designed to simplify the construction of distributed applications by allowing computer users to create

customized distributed applications by combining reusable software components, similar to the way the components of a stereo system are plugged together. Once constructed, these applications can be changed, even while they are running, in order to support more flexible and effective use of dynamically changing electronic information sources from around the world.



Kenneth J. Goldman

Goldman will collaborate with co-investigators Jerome R. Cox Jr., D.Sc., the Harold B. and Adelaide G. Welge Professor of Computer Science; Guru M.

Parulkar, Ph.D., associate professor of computer science and director of Washington University's Applied Research Laboratory (ARL); and Jonathan S. Turner, Ph.D., Henry Edwin Sever Professor of Engineering and chair of computer science, as well as others in the ARL. The high-performance aspects of the research rely upon Turner's ATM — asynchronous transfer mode — broadband switch for high-speed communication; multicast (many different points) data distribution; and a new chip being developed by Parulkar and Cox called APIC — ATM Port Interconnect Chip — for rapid data transfer between the computer memory and networks.

"When an application writes into the memory, the APIC immediately sends the data across the network to another APIC that writes the data directly into the

receiving application's memory," explained Goldman. "This will allow our applications to communicate across the network without the data-copying and additional overhead that is normally introduced by the operating system and the standard communications protocols."

As part of the ARPA contract, Cox and Parulkar will be developing a new version of the APIC that will provide special support for distributed multimedia applications.

In addition, Turner will be incorporating a reliable multicast mechanism into the network switch design. With this enhancement to the switch, some of the reliability that normally is provided by the communication protocol software will be supported instead by the switching hardware, where it can be handled more efficiently.

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Parulkar new head of Applied Research Laboratory

Guru M. Parulkar, Ph.D., associate professor of computer science at the School of Engineering and Applied Science, assumed the duties as director of the Applied Research Laboratory (ARL) on July 1. He succeeds Jerome R. Cox Jr., D.Sc., the Harold B. and Adelaide G. Welge Professor of Computer Science.

The ARL, located on the fifth floor of Bryan Hall, was founded in 1988 by Cox, then chair of computer science, and Jonathan S. Turner, Ph.D., the current chair of computer science and Henry Edwin Sever Professor of Engineering.

The ARL's mission is to facilitate the development of faculty ideas into practical systems ready for product development by industry. Over the years, the ARL has undertaken many collaborative, multi-investigator research projects in high-speed, fiber-optic telecommunications, several of which have made major contributions to the information superhighway. The ARL's research has pioneered new concepts and architectures in what the telecommunications industry calls asynchronous transfer mode (ATM), a switching and transmission technique in which information is carried in small,

fixed-size units called cells for efficient transportation of multimedia information — audio, visual and text data.

The most well-known project to emerge from the ARL is Washington University's Project Zeus, the campuswide computer research network that supports data rates of 155 million bits per second to a variety of multimedia and imaging applications using the ATM switching systems, fiber-optic communication and multimedia and imaging devices. In contrast, the data communications industry's standard network,

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Medical Update

Risk factors for premature death in alcoholics highlighted by study

Years of heavy drinking put alcoholics at risk for a host of health problems ranging from poor nutrition to heart disease and cirrhosis of the liver. Alcoholics also are more likely to die prematurely. During the last several months, School of Medicine researchers have published four new studies that shed light on some of the risk factors for premature death. The most recent study appears in the October 1995 issue of *Alcoholism: Clinical and Experimental Research*.

The researchers followed 259 male and female alcoholics who were hospitalized for treatment in the late 1960s. Overall, they found that nearly half of the alcoholic women and almost 60 percent of the male alcoholics died within a 20-year follow-up period. Most patients were in their 30s or 40s at the time they were hospitalized for treatment.

"These men and women were dying as much as 20 years prematurely," said lead investigator Elizabeth M. Smith, Ph.D., associate professor of social work in psychiatry. "We're talking about people who should be living into their 70s, but instead they're dying in their 50s."

The average age of death for both male and female alcoholics in this study was 56. The time from hospital admission to death averaged nine years for men and 10.5 years for women.

In all four studies, which were published in the journal, the investigators report on risk factors at admission that can predict early death in alcoholic men and women. Their research, which is funded by grants from the U.S. Public Health Service and the National Institutes of Health, may help alcohol-treatment programs target certain therapies to individual patients who may be at the greatest risk of early death.

The study patients were treated in the detoxification units at a private psychiatric hospital and a public mental health center, both in St. Louis. When they were admitted to the hospital, the patients took part in detailed interviews that assessed their drinking habits, the age at which they began drinking and the medical complications related to their alcohol use.

Most of the men had been problem drinkers since before age 25. Most women in the study had been problem drinkers for seven to 10 years before they were admitted for treatment. The researchers reviewed their medical records,

interviewed their close relatives and followed the patients for 20 years.

This study is unique, said co-investigator Collins E. Lewis, M.D., associate professor of psychiatry, because the researchers had access to so much information collected over a long period of time.

By following this sample of alcoholic men and women over time, Smith and Lewis said, they were able not just to learn about mortality rates but also about risk factors.

Prior research has determined that the mortality rates of alcoholics are two to five times higher than age- and sex-matched comparison groups from the general population, and the goal of this research was to determine the risk factors that predicted an early death.

Mortality rates in this study were high, and although death rates were higher for men than for women, the researchers said that is less a function of gender than of the severity of alcoholism in the male patients. Most of the men drank more and had been drinking heavily for longer than the women in the study group. Once the severity of alcoholism was taken into account, the men and women had comparable death rates.

Marital status a key predictor

As expected, age was the strongest predictor of death in both men and women. Those who were older at the time of hospitalization were more likely to die during the follow-up period. However, other predictors differed with gender. For men, the risk of death increased in those who were not married or had cirrhosis of the liver at the time they were admitted. For women, the risk increased with binge drinking and decreased when there was a diagnosis of depression.

The researchers said these predictors have important implications for future treatment of alcoholics. "We can target the high-risk groups," Lewis said. "If an older, divorced man with cirrhosis checks into the hospital for treatment, we know that he is at very high risk for an early death, so we need to target him for intensive therapy."

Smith said if they know the risk factors, clinicians can tailor treatment to a patient's individual needs. "There were several findings in these studies that surprised us, and as a result, we may need to rethink the way in which we treat some patients," Smith said.

— Jim Dryden

Contributions to emphysema research lands Robert Senior 1995 Alton Ochsner award

Robert M. Senior, M.D., Dorothy R. and Hubert C. Moog Professor of Pulmonary Diseases, has received the 1995 Alton Ochsner Award Relating Smoking and Health, one of the highest scientific honors given for smoking-related research. This international award recognizes Senior's major contributions to the understanding of emphysema.

Recipients receive a cash prize of \$15,000, a medallion and a scroll. The award is given annually by the New Orleans-based Alton Ochsner Medical Foundation under the auspices of the American College of Chest Physicians, with corporate support from Marion Merrell Dow Pharmaceuticals Inc. The award is named in honor of Alton Ochsner, one of the first to study the relationship between smoking and lung disease. Ochsner received his medical degree in 1920 from Washington University.

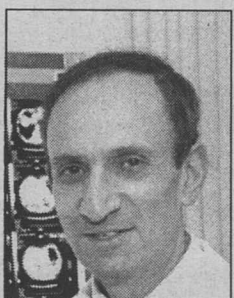
Senior, who is director of the Respiratory and Critical Care Division at Jewish Hospital of St. Louis, is considered a leader and pioneer in explaining the cause of emphysema. This debilitating disease involves progressive and irreversible destruction of lung tissue, which makes breathing increasingly difficult over time.

Based on work by Senior and other researchers, it is now known that lung damage in emphysema stems largely from tissue-eating enzymes released from certain blood cells.

Senior was among the first to begin pinpointing the enzymes responsible for this destruction, and he has helped to identify two types of blood cells that produce them.

Senior joined the Washington University faculty in 1969 as an assistant professor of medicine. He became a professor in 1979 and received the Moog endowed professorship in 1988. He was elected a fellow of the American Association for the Advancement of Science in 1987 in recognition of his contributions to emphysema research.

Senior also is considered an outstanding clinician and teacher. He is ranked among the nation's best pulmonary physicians in a directory titled "The Best Doctors in America." He was given the School of Medicine's Teacher of the Year Award in 1973.



Robert M. Senior



Bob Morrison, animal handler of Busch Gardens Tampa Bay's 1995 Animal Tour, introduces "Shag," a carpet python, to students at the Central Institute for the Deaf (CID). Carpet pythons, which are harmless, get their name from the distinct patterns on their backs that resemble oriental rugs. During the visit, CID students learned about animals with habitats in Africa, Brazil, Australia and the United States.

Brain swelling after stroke damage to be studied by neurologist Hsu

A neurology professor at the School of Medicine has received a five-year \$1.2 million grant from the National Institutes of Health to determine why the brain swells after it is damaged by a stroke.

Such swelling, caused by water influx, or edema, is a leading cause of death among the half-million stroke victims in the United States each year. Chung Y. Hsu, M.D., Ph.D., has found major clues in the past five years, and the grant will aid further investigations.

Strokes kill 150,000 people in the United States annually and are the leading cause of disability — the lingering effects handicap 2 million to 3 million Americans. "At present, we cannot prevent brain swelling after stroke," Hsu said. "So the ultimate goal of the study is to find ways to prevent edema. Before we can do that, we need to understand how edema occurs."

Using an animal model of stroke, Hsu has unearthed one cause of this edema — an inflammatory response by the immune system. When a blood vessel is blocked, the surrounding tissue cannot get oxygen and nutrients, and it dies. Chemicals from the damaged tissue attract white blood cells to the area to clean up the mess. But the white cells also can injure blood vessels, making them leak. So fluid flows out of vessels in the damaged area, and the brain swells.

The next phase of the research will focus on brain cells called glia, which swell up like water balloons when the brain is damaged. These cells are unique to the brain, so they add a new twist to studies of inflam-

mation. Hsu also will explore the role of nitric oxide in inflammation.

Finding a way to control inflammation in the brain also should help patients with less severe strokes, perhaps allowing a complete recovery. "And it may be useful in other disorders that have inflammatory components," Hsu said. "These include head injury, Alzheimer's disease, AIDS, meningitis and multiple sclerosis."

Record

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Hippocrene accepts spring submissions

The Hippocrene, the literary journal of the School of Medicine, is accepting submissions of prose, poetry, photography and artwork for its spring issue. The deadline is Nov. 22.

For more information, call Diane Smith at 362-8541.

Washington People

Gynecologist works with children, teens

Diane Merritt never considered a career in medicine until she was in college, when she found herself tutoring pre-med students in chemistry and biology.

She had planned to be a teacher, possibly a high school science teacher. And although Merritt, M.D., associate professor of obstetrics and gynecology, never received a teaching certificate, today she plays a central role in educating students and residents at the School of Medicine.

"All good doctors are teachers," Merritt said. "You are either teaching your patients or you are teaching younger doctors. My work is very compatible with my original goal."

Merritt is known nationally among her peers as an expert in diagnosing and treating gynecological problems in children and teen-agers and for clinical research in this area. The specialty didn't exist when she entered medical school at New York University in 1971. Rather, it's a niche Merritt began carving out for herself as a resident at the School of Medicine.

She struck a deal with the St. Louis Children's Hospital emergency room doctors to call her when young female patients with gynecological problems needed examinations. "I didn't mind making the trip over to the emergency room, and I enjoyed the challenge of working with younger patients," Merritt said.

Merritt found that gynecologists often feel unable to relate to children, particularly in situations that involve a pelvic exam, and pediatricians often feel ill-equipped to tackle gynecological problems in young children.

"This is an area of medicine that was underserved for many, many years, and it is now getting the attention it deserves," Merritt said.

Ability to relate to children

Merritt draws upon her background and interest in developmental biology, endocrinology, gynecology and pediatrics to treat her patients, who come to her with a wide array of medical problems. For example, Merritt sees children with congenital anomalies involving the reproductive and urinary tracts. Many times, their problems can be corrected surgically, enabling them to lead normal lives. Merritt finds these patients to be the most challenging, but also the most satisfying, to diagnose and treat.

Adolescents with chronic illnesses such as cystic fibrosis, diabetes or congenital heart disease often encounter menstrual problems during puberty. Merritt keeps a watchful eye on these patients because medications prescribed for their illnesses can affect their reproductive system, she said.

She also counsels sexually active teens about the risks of unplanned pregnancy, their contraceptive options and date rape. She treats young patients with eating disorders, such as bulimia and anorexia, who often have irregular — or absent — menstrual periods.

Merritt also sees young women with severe physical and mental disabilities who begin puberty without having the capacity to understand why their bodies are changing. Merritt helps them and their families face these difficult challenges.

In an effort to educate physicians and nurses nationwide about the gynecological problems in young female patients, Merritt and several colleagues formed the North American Society of Pediatric and Adolescent Gynecology in 1987. She has continued to play an active role in the organization by giving lectures and conducting workshops in the United States, Canada and Europe.

"Dr. Merritt's work in this area has helped to create a national reputation for the University's obstetrics and gynecology department," said James Schreiber, M.D., professor and head of the department. "In addition to her extensive knowledge, she has a special capacity to put these children at ease and gain their trust."

Merritt also sees herself as a role model for male and female medical students who are searching for ways to balance family life with a hectic workload. It's important, she said, for young men and women to see that they can succeed in obstetrics and gynecology even though they may be juggling responsibilities at work and at home.

Similar role models were scarce when Merritt was in

medical school. There, she was one of only 10 women in a class of 120. "There was some curiosity and a great deal of questioning about whether I really knew what I was getting into and whether I could ever combine a career in medicine with a family," she recalled.

While Merritt initially planned to be a surgeon, she was drawn to obstetrics and gynecology out of a strong interest in women's health issues.

As a medical student, Merritt was surprised to see that most women were heavily sedated during childbirth. Mothers gave birth in sterile delivery rooms that resembled operating room suites, and fathers routinely were excluded. "For a natural process, it seemed like too

dren. "The unpredictable nature of obstetrics, where you could be totally organized but at the last minute have to leave whatever you're doing to go to the delivery room, was not working out with the rest of my career and family," Merritt said.

So, after 15 years of delivering babies, Merritt decided it was best to discontinue obstetrics and instead focus her energy on treating younger patients.

Her efforts have paid off. Since 1988, the number of pediatric and adolescent gynecology office visits to the School of Medicine has more than doubled, from 380 to almost 900 in 1994. The number of new patients also has increased, from 150 in 1988 to 400 in 1994. Since Merritt

was named director of the Pediatric and Adolescent Gynecology Program in 1984, she has built a major referral base for patients, both from within Missouri and from surrounding states.

James Keating, M.D., professor of pediatrics, has referred many patients to Merritt over the years. "She knows better than I do, and probably better than most, the effect of disease on a young woman's reproductive health," he said. "The risks faced by a number of young women I follow for chronic liver disease would have led them to remain childless had she not given them the hope, advice and support they needed to become pregnant and carry their babies to term. She brings to my patients an extraordinarily helpful expertise, with a straightforward, thoughtful approach."

In recent years, however, Merritt has begun treating women who are entering menopause. She finds it

rewarding to work with patients at both ends of the age spectrum. "In many ways, their situations are similar; both groups are going through a lot of transitions in their lives and adjusting to some new roles," Merritt said.

Expertise crosses disciplines

Her interest in women's health issues — and her expertise — also reaches students on the Hilltop Campus. Once, on a return airline flight to St. Louis, Merritt struck up a conversation with a law student who was writing a paper for a seminar course about reproductive rights.

The paper's topic, genetic screening and counseling, caught Merritt's attention, and she later called the instructor, Susan Appleton, J.D., professor of law, and asked to audit the course. Students in the class discuss high-profile court cases about reproductive rights, including abortion rights, pregnancy-based discrimination and artificial insemination.

"Her expertise made me wonder how I could have taught the seminar without including a physician," Appleton said. "It also has helped the students realize that if they are to become good lawyers, they must become knowledgeable about specialized facts from other disciplines."

Appleton has restructured the seminar and now invites a physician to participate throughout the semester.

Merritt said she has seen tremendous changes in the role of women physicians in obstetrics and gynecology during the past 20 years. Female obstetricians and gynecologists now are in high demand and can be a huge drawing card for patients who prefer female doctors, Merritt said.

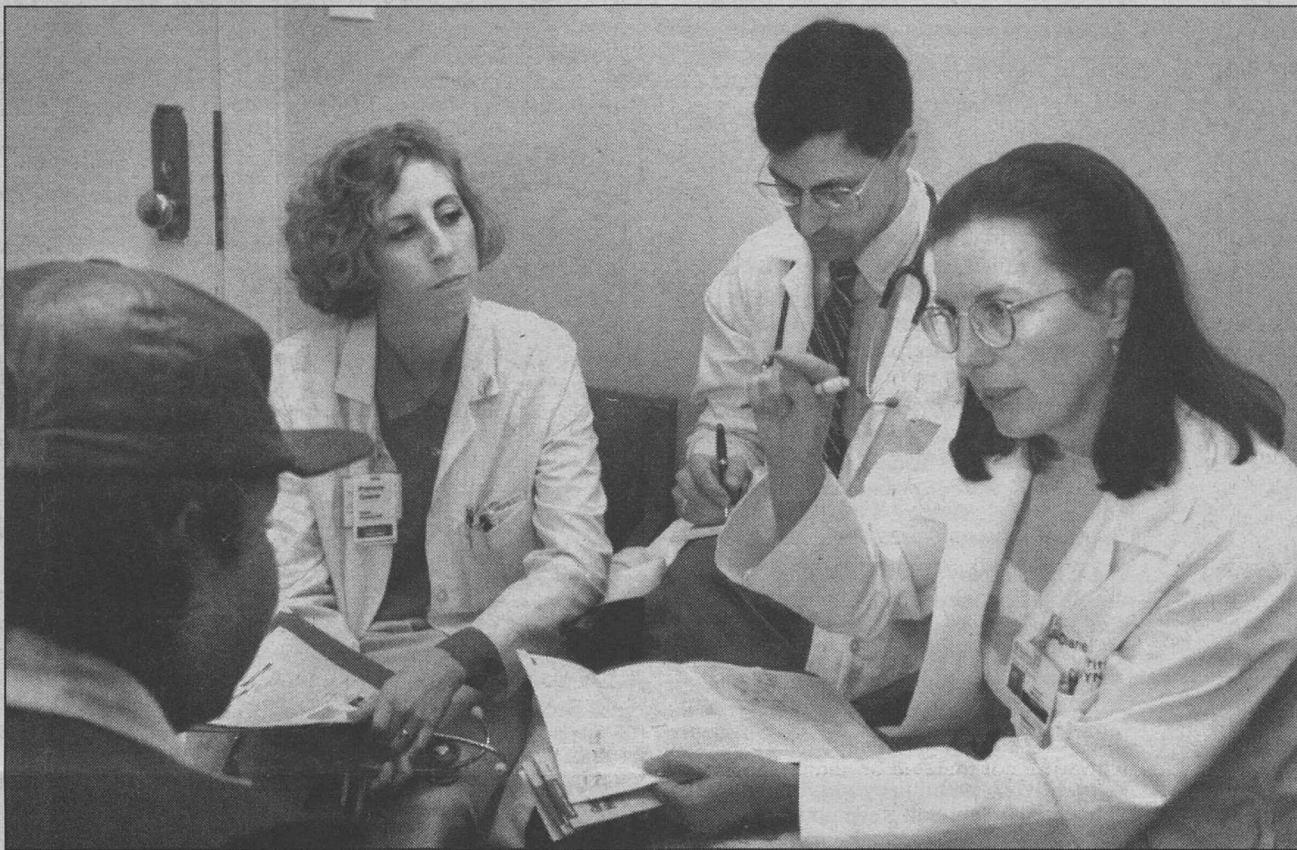
In this type of atmosphere, male medical students often ask Merritt if they can succeed in obstetrics and gynecology. "I tell them it doesn't matter what gender they are," Merritt said. "Their success will depend on their enthusiasm, knowledge and ability to relate to their patients. If they can listen, understand and not prejudge their patients, then they will make it."

Outside of her life at the medical school, Merritt and her cardiologist-biophysicist husband try to keep up with the fast-paced schedules of their children, who are 10, 8 and 6 years old. They often rely on the help of Kovács' father to chaffer the children to after-school activities.

"There are very few husbands who would tolerate my work schedule and be supportive of my career," Merritt said. Despite a demanding schedule, Merritt enjoys cooking, especially the traditional Hungarian dishes she learned from her mother-in-law. They've been updated for the '90s by eliminating the schmalz (chicken fat).

"Our family has culinary tradition, with a cardiologist's seal of approval," Merritt quipped.

— Caroline Decker



Diane Merritt, M.D., discusses an abnormal pap smear with a patient while residents Francine Cosner, M.D., and David Pressel, M.D., look on.

"All good doctors are teachers. You are either teaching your patients or you are teaching younger doctors."

much medical intervention at a time when Mother Nature was capable of doing so much more," Merritt said.

During her training, however, she saw the medical community make a transition to deliveries that not only encouraged women to actively participate in childbirth but also urged fathers to play a strong support role. During this time, many hospitals replaced the stainless steel delivery room with homey birthing suites.

After completing her residency, Merritt joined the School of Medicine faculty in 1981. At the time, she was one of only two female physicians in the obstetrics and gynecology department. She had a "full-service" practice — delivering babies, performing routine gynecological exams and surgeries — and she was just beginning to treat younger patients on a regular basis.

The following year, she took on another responsibility: obstetrics and gynecology course master for the third-year medical students. With supervision from the faculty, these students participate in patient care ranging from routine and high-risk obstetrics to oncology, infertility and surgical cases.

As course master, a post Merritt still holds, she plays a central role in designing the curriculum and evaluating and counseling the students.

Lauded as an enthusiastic teacher

"Dr. Merritt's enthusiasm is contagious, which makes her lectures exciting and interesting," said Julie Miller, a fourth-year medical student. "She's very thorough, but sticks to what's relevant."

Miller's class gave Merritt a Distinguished Teaching Award; her educational efforts also have been recognized by the obstetrics and gynecology residents.

Over the years, however, it gradually became clear to Merritt that she would have to make some career adjustments. By 1988, her pediatric and adolescent gynecology practice was taking off, and she and her husband, Sándor Kovács, Ph.D., M.D., assistant professor of medicine, were facing the challenges of raising three young chil-

Calendar

Nov. 2-11



Exhibitions

"The Keenest of Senses: Celebrating the Becker Rare Book Collection in Ophthalmology." Through Dec. 22. Glaser Gallery, The Bernard Becker Medical Library, 660 S. Euclid Ave. Hours: 9 a.m.-9 p.m. weekdays; 1-5 p.m. weekends. 362-4239.

"Engineering at Washington University: 125 Years of Excellence." Through Nov. 30. Special Collections, Olin Library, Level Five. Hours: 8:30 a.m.-5 p.m. weekdays. 935-5444.

"Transitions." Features works by several new and longtime faculty members in the School of Art. Opening reception: 5-7 p.m. Nov. 3. Through Dec. 17. Gallery of Art, upper gallery, Steinberg Hall. Hours: 10 a.m.-4:30 p.m. weekdays; 1-5 p.m. weekends. 935-5490.

"That's a Dangerous Place to Put a Zipper." Architecture exhibit featuring advertising and graphic design by Foote, Cone and Belding, San Francisco. First floor, Givens Hall. 935-6200.



Films

All Filmboard movies cost \$3 and are shown in Room 100 Brown Hall. For 24-hour Filmboard hotline, call 935-5983.

Thursday, Nov. 2

7 and 9 p.m. Filmboard Foreign Series. "Contempt (Le Mepris)" (1964), in French with English subtitles. Starring Jack Palance and Brigitte Bardot.

Friday, Nov. 3

7 and 9:30 p.m. Filmboard Feature Series. "The Shawshank Redemption" (1994), starring Tim Robbins and Morgan Freeman. (Also Nov. 4, same times, and Nov. 5 at 7 p.m.)

Midnight. Filmboard Midnight Series. "The Jerk" (1979), starring Steve Martin. (Also Nov. 4, same time, and Nov. 5 at 9:30 p.m.)

Wednesday, Nov. 8

7 and 9 p.m. Filmboard Foreign Series. "Whisky Galore!" (1949, B&W), a classic comedy from late 1940s Great Britain. (Also Nov. 9, same times.)

7 p.m. Japanese Film Series. "The Ballad of Narayama" (1983), with English subtitles. Room 219 South Ridgley Hall. 935-5156.

Friday, Nov. 10

7 and 9:30 p.m. Filmboard Feature Series. "In the Name of the Father" (1993), starring Daniel Day Lewis and Emma Thompson. (Also Nov. 11, same times.)

Midnight. Filmboard Midnight Series. "The Road Warrior" (1981), starring Mel Gibson. (Also Nov. 11, same time.)



Lectures

Thursday, Nov. 2

1:10 p.m. Social work lecture. "Women in Business Management/Leadership Positions," Elaine Church, partner, Price Waterhouse, Washington, D.C. Brown Hall Lounge. 935-6606.

4 p.m. Assembly Series. Edward G. Welton Lecture in Religious Studies. "Conscience Against Commonwealth and Church," John Noonan Jr., judge, Ninth U.S. Circuit Court

of Appeals, San Francisco. Courtroom, Mudd Law Bldg. 935-5285.

4 p.m. Chemistry lecture. "Surface Physics and Chemistry of Semiconductor Crystal Growth," Daniel L. Rode, prof. of electrical engineering, Room 311 McMillen Lab. (Coffee: 3:40 p.m. outside Room 311.) 935-6530.

4 p.m. History panel discussion. "Broadening the Horizons of History Teaching: The Challenge of Women's History." Jeanie Attie, asst. prof. of history, will discuss "Gender as Category of Analysis and Experience"; Karen Mead, Mellon Fellow in Women's Studies and History, will discuss "Gender and Teaching Practice"; and Helen Power, coordinator of the Women's Studies Program, will moderate. Cohen Lounge, Room 113 Busch Hall. 935-5450.

4:30 p.m. Math colloquium. "Linear Systems on Algebraic Varieties," Lawrence Ein, prof. of mathematics, U. of Illinois, Chicago. Room 199 Cupples I Hall. (Tea: 4 p.m. in Room 200.) 935-6726.

Friday, Nov. 3

9 a.m. Algebraic geometry seminar. "Linear Systems on Threefolds," Lawrence Ein, prof. of mathematics, U. of Illinois, Chicago. Room 199 Cupples I Hall. 935-6726.

9:15 a.m. Pediatric Grand Rounds. "Glucose Transport in Muscle and Beyond," Peter Haney, asst. prof. of pediatrics and of cell biology and physiology. Clopton Aud., 4950 Children's Place. 454-6006.

Noon. Cell biology and physiology seminar. "A Function for Each Domain of the N-ethylmaleimide Sensitive Fusion Protein (NSF)," Sidney W. Whiteheart, Dept. of Biochemistry, U. of Kentucky, Lexington. Cell Biology and Physiology Library, Room 426 McDonnell Medical Sciences Bldg. 362-6950.

Noon. Environmental engineering seminar. "Integrated In-situ Soil Remediation Technology — The Lasagna Process," Sa Ho, science fellow and unit leader, remediation technologies, Monsanto Co., St. Louis. Room 216 Urbauer Hall. 935-8590.

1 p.m. Solid-state engineering and applied science seminar. "Heat Transfer in Ultra-high Density Magnetic Recording Systems," H.S. Chen, graduate student in electrical engineering. Room 305 Bryan Hall. 935-5565.

3:15 p.m. Philosophy-Neuroscience-Psychology Program colloquium. "Musical Pattern vs. Musical Meaning: Can Powerful Music be Generated by Powerful Computers?" Douglas Hofstadter, prof. of cognitive science and computer science, and director, Center for Research on Concepts and Cognition, Indiana U., Bloomington. Room 149 McMillan Hall. 935-6670.

3:15 p.m. Political science discussion. "Are Americans Ambivalent About Racial Policy?" John Brehm, prof. of political science, Duke U., Durham, N.C. Room 200 C Eliot Hall. 935-5822.

5 p.m. Architecture lecture. Alise O'Brien, architectural photographer, Alise O'Brien Photography, St. Louis. Room 116 Givens Hall. 727-1920.

6 and 8:30 p.m. Washington University Association Travel Lecture Series. "The Real World of Hong Kong and Southern China," by Rick Howard. Graham Chapel. Cost: \$4.50. 935-5212.

Monday, Nov. 6

3:45 p.m. Physics lecture. "Quasicrystalline Hydrides: Formation and Application," Ann Viano, graduate student in physics. Room 241 Compton Hall. (Refreshments: 3:30 p.m.) 935-6276.

4 p.m. Biological science forum. Biology as an Interdisciplinary Science: Frontiers for the 21st Century. "Beyond the Baconian-Cartesian-Mendelian Paradigm: Genetics After the Human Genome Project," Charles F. Sing, prof., Dept. of Human Genetics, U. of Michigan School of Medicine, Ann Arbor. Room 162 McDonnell Hall. (Refreshments and discussion following lecture in Room 309 Rebstock Hall.) Call Betty Smith at 935-6850 or e-mail betty@biodec.wustl.edu to make a reservation. (Series continues Nov. 10.)

4 p.m. Immunology seminar. "Osteoclasts, Macrophages and Bone Resorption," Steve Teitelbaum, Wilma and Roswell Messing Professor of pathology, Third Floor Aud., St. Louis Children's Hospital. 362-8748.

4 p.m. Psychology colloquium. "Stylistic and Qualitative Aspects of Social Support,"

Ed Fisher, prof., Dept. of Psychology. Room 118 Eads Hall.

8 p.m. Architecture lecture. Gisue Hariri, Hariri & Hariri Design Inc., New York. Steinberg Hall Aud. 935-6200.

Tuesday, Nov. 7

Noon. Molecular microbiology/microbial pathogenesis seminar. "Cellular Functions Required for SOS Mutagenesis and Translesion DNA Synthesis in *E. Coli*," Graham Walker, prof., Dept. of Biology, Massachusetts Institute of Technology. Cori Aud., 4565 McKinley Ave. 362-7258.

12:15 p.m. Cell biology and physiology seminar. "Rab7 Function in Late Endocytic Membrane Transport," Angela Wandinger-Ness, depts. of Biochemistry, Molecular Biology and Cell Biology, Northwestern U., Evanston, Ill. Cell Biology and Physiology Library, Room 426 McDonnell Medical Sciences Bldg. 362-6950.

3 p.m. Geometry seminar. "The Minimal Entropy Theorem and Mostow Rigidity," Renato Feres, asst. prof. of mathematics. Room 199 Cupples I Hall. 935-6726.

4 p.m. Chemistry seminar. "Chemistry of Permetalated Metalloenes and Aromatic Compounds," Charles Winter, asst. prof. of chemistry, Wayne State U., Detroit. Room 311 McMillen Lab. (Coffee: 3:40 p.m. outside Room 311.) 935-6530.

4 p.m. Diabetes research seminar. "Mechanisms of UV-induced Prostaglandin Synthesis," Alice Pentland, assoc. prof., depts. of Medicine and of Molecular Biology and Pharmacology. Pathology Library, Room 3723 West Bldg. 362-7435.

7 p.m. East Asian studies lecture. "Ch'i, Feng Shui and Life from the Perspective of Black Sect Tantric Buddhism," Thomas Yun Lin, supreme leader of the Black Sect Tantric Buddhism and world-renowned expert on feng shui. Room 100 Busch Hall. 935-4448.

Wednesday, Nov. 8

6:30 a.m. Anesthesiology Grand Rounds. "Retinal Transplantation: The Next Frontier," Henry J. Kaplan, chair, Dept. of Ophthalmology and Visual Sciences. Wohl Hospital Bldg. Aud., 4960 Children's Place. 362-6978.

8 a.m. Obstetrics and Gynecology Grand Rounds. "Bones," Michael Gast, vice president, Women's Health Care, Wyeth-Ayerst Laboratories, Philadelphia. Clopton Aud., 4950 Children's Place. 362-3143.

11 a.m. Assembly Series. Holocaust Memorial Lecture. "The Holocaust and Mass Death: Variations and Differences," Steven Katz, prof. of Near Eastern studies, Cornell U. Graham Chapel. (An informal discussion will be held at 2 p.m. in Lambert Lounge, Room 303 Mallinckrodt Center.) (See page 6.)

3:45 p.m. Physics lecture. "Multifragment Disintegrations of Expanding Nuclear Systems," Konrad Gelbke, director, National Superconducting Synchrotron Laboratory, Michigan State U., East Lansing. Room 204 Compton Hall. (Refreshments: 3:30 p.m. in Room 245.) 935-6276.

4 p.m. Biochemistry and molecular biophysics seminar. "Feedback Regulation of Insulin-stimulated Ras Signaling Pathways," Jeffrey Pessin, prof., Dept. of Physiology, U. of Iowa, Iowa City. Cori Aud., 4565 McKinley Ave. 362-0261.

7:30 p.m. Art lecture. Suzi Gablik, artist, writer and teacher, will discuss her new book, "Conservations at the End of Time." Co-sponsored by the Forum for Contemporary Art. Steinberg Hall Aud. 935-6597.

Thursday, Nov. 9

1 p.m. Vision science seminar. "Water Transport Proteins in the Eye," Raj Patil, research asst. prof., Dept. of Ophthalmology and Visual Sciences. East Pavilion Aud., Barnes Hospital. 362-3726.

4 p.m. Dept. of Education Wilma Koetter Memorial Lecture. "The Study of Culture and Development in Community Settings: The Case of Computer-mediated Communication and Instruction," Michael Cole, prof. of communication and psychology, U. of California, San Diego. Women's Bldg. Lounge. (Reception at 3:30 p.m.) 935-6707.

4 p.m. Molecular oncology, medicine and pathology seminar. "Regulation of Immune Responses by NF-kB/Rel Transcription Factors," William C. Sha, postdoctoral fellow, National Institutes of Health, Dept. of Biology, Massachusetts Institute of Tech-

nology. Third Floor Aud., St. Louis Children's Hospital. 362-9035.

4:15 p.m. Philosophy lecture. "Between Justice and Affection: The Family as a Field of Moral Disputes," Axel Honneth, prof. of philosophy, Free U., Berlin. Hurst Lounge, Room 201 Duncker Hall. 935-7148.

4:30 p.m. Math colloquium. "A Weierstrass Representation for Surfaces of Constant Mean Curvature," Josef Dorfmeister, prof. of mathematics, U. of Kansas, Lawrence. Room 199 Cupples I Hall. (Tea: 4 p.m. in Room 200.) 935-6726.

Friday, Nov. 10

9:15 a.m. Pediatric Grand Rounds. "Hereditary Hearing Loss and Its Syndromes," Robert Gorlin, Regents' Professor of Oral Pathology and Genetics Emeritus, U. of Minnesota, Minneapolis. Clopton Aud., 4950 Children's Place. 454-6006.

10 a.m. Electrical engineering colloquium. "High-definition Imaging for Synthetic Aperture Radar," Gerald R. Benitz, member, technical staff, Advanced Techniques Group, Massachusetts Institute of Technology. Room 305 Bryan Hall. 935-4830.

Noon. Cell biology and physiology seminar. "Regulating Dynamic Instability," Timothy Mitchison, Dept. of Pharmacology, U. of California, San Francisco. Cell Biology and Physiology Library, Room 426 McDonnell Medical Sciences Bldg. 362-3964.

4 p.m. Biological science forum. Biology as an Interdisciplinary Science: Frontiers for the 21st Century. "Biochips: What's Real and What's Not," Chancellor Mark S. Wrighton. Room 162 McDonnell Hall. (Refreshments and discussion following lecture in rooms 361 and 362 McDonnell Hall.) Call Betty Smith at 935-6850 or e-mail betty@biodec.wustl.edu to make a reservation.

4 p.m. Music lecture. "The Music of a Nation: Attempts to Define 'Germanness' in Music in the 18th, 19th, and 20th Centuries," Pamela Potter, asst. prof., Dept. of Music, U. of Illinois at Urbana-Champaign. Room B-8 Blewett Hall. 935-5581.



Music

Monday, Nov. 6

8 p.m. Vocal and piano recital. Program: Songs of Henry Purcell, Hugo Wolf, Alban Berg, Samuel Barber and Ned Rorem. Piano works by Claude Debussy and Norman Dello Joio. Performance by soprano Christine Armistead, voice faculty member, and pianist Gail Hintz, accompanist for the Dept. of Music. Graham Chapel. 935-5581.



Performances

Friday, Nov. 3

8 p.m. Performing Arts Dept. play. "Marat/Sade," the story of the persecution and assassination of Jean-Paul Marat by the inmates of the Asylum of Charenton under the direction of the Marquis de Sade. Twenty-five students have on-stage roles. (Also Nov. 4, 10 and 11, same time, and Nov. 5 at 2 p.m.) (After the Nov. 3 performance, Eric Nuetzel, M.D., of the St. Louis Psychoanalytic Institute will lead a discussion of the historic, psychiatric and psychological impact of the play.) Cost: \$8 for the general public and \$6 for senior citizens and WU faculty, staff and students. (Recommended for mature audiences only.) Edison Theatre. 935-6543.

Thursday, Nov. 9

7 p.m. Dance lecture and demonstration. "Movement and Meaning," Danial Shapiro,

co-founder and artistic director of Shapiro & Smith Dance company. Dance Studio, Room 207 Mallinckrodt Center. 935-5858. (See story, this page.)

Friday, Nov. 10

8 p.m. "Stage Left" series presents "Jordan: One Woman's Journey," with English actress Moira Buffini. (Also Nov. 11, same time.) (See story, this page.) Drama Studio, Room 208 Mallinckrodt Center. Cost: \$12 for the general public and WU faculty and staff; and \$10 for WU students. 935-6543.



Miscellany

Thursday, Nov. 2

7:30 a.m. Midwest AIDS Training and Education Center symposium. "Clinical Care Approach to HIV Disease." Cost: \$150 for physicians and \$125 for allied health professionals. Regal Riverfront Hotel, 200 S. Fourth St., St. Louis. Call Susan Wightman at 362-2418 or (800) 432-0448.

9:30 a.m.-4:30 p.m. Health Fair '95. Hilltop Campus faculty and staff are invited to learn more about becoming a healthier person. Topics include body fat, height/weight, blood pressure/heart rate, vision screening, self breast exam, self testicle exam, smoking/alcohol/drug cessation, flexibility stretching, repetitive stress injury, safe sex and condom use. Influenza immunizations available for \$10 and cholesterol screening for \$4. Lower level, Mallinckrodt Center. 935-5990.

4-6 p.m. Self-defense workshop. A women's workshop will be held in Lambert Lounge, Room 303 Mallinckrodt Center. A general workshop for men and women will be held from 6-8 p.m. in Greenstuffs in Wohl Student Center. Space for the women's workshop is limited to 20, and the general workshop is open to all. Part of Sexual Assault Awareness Week. 935-5037.

7:30 p.m. Drama performance. Part of a weeklong campus performing arts festival. Writer/actor Robin Hirsch will perform the first part of his dramatic memoirs, "Kinderszenen: Scenes From Childhood." Sponsored by the St. Louis Hillel Center, Performing Arts Dept., Jewish Student Council, Jewish Theatre Group, Holocaust Education Project, Congress of the South 40, WU Society for the Arts, Association of Black Students, African and Afro-American Studies Program, Student Union, Jewish Federation of St. Louis and the National Foundation for Jewish Culture. Wydown

East Residence Hall multi-purpose room. (Continues Nov. 3.) 726-6177.

8 p.m. Literary reading to benefit hunger relief. The Writers Harvest features well-known St. Louis participants who will read from their works. The writers are David Carkeet, David Clewell, William H. Gass, Itabari Njeri, E. Annie Proulx, Eugene Redmond, Pattiann Rogers and Glenn Savan. All proceeds benefit Operation Food Search, a St. Louis hunger-relief organization. St. Louis Brewery/Taproom, 2100 Locust St. Cost: \$10 for the general public and \$5 for students. Tickets sold at the door. 935-5576.

Friday, Nov. 3

11:45 a.m. Office of Continuing Medical Education lecture and grand rounds. "Rupert B. Turnbull Memorial Lectureship and Surgical Grand Rounds," with David Ransohoff, prof. of medicine and epidemiology, U. of North Carolina. Event runs through Nov. 4. Heifetz Library and Steinberg Amphitheater, Jewish Hospital, 216 S. Kingshighway. Registration open through Nov. 2. 362-6893.

5:45 p.m. Take Back the Night March. Keynote speaker is Liann Tsoukas, former instructor in the Dept. of History. Rally begins with comments by Chancellor Mark S. Wrighton. March route starts at Brookings Quadrangle, then goes north on Skinner Boulevard, west on Delmar Boulevard and returns to campus on the Greenway Walkway, passing the fraternity houses. During the march, a men's discussion will take place in McMillan Cafeteria. Part of Sexual Assault Awareness Week. 935-5037.

8:30 p.m. Theatre lecture. Part of a weeklong campus performing arts festival. "Why Are There More Subscribers to the Rep Than Season Ticket Holders to the Cardinals: A Case for Live Performing Arts in the '90s," Steven Woolf, artistic director, Repertory Theatre of St. Louis. Hillel Center, 6300 Forsyth Blvd. 726-6177.

Wednesday, Nov. 8

8 p.m. Writers colloquium. "The Use of Landscape in Contemporary Fiction," E. Annie Proulx, Visiting Hurst Professor, Dept. of English. Hurst Lounge, Room 201 Duncker Hall. 935-5190.

Thursday, Nov. 9

7:30 p.m. Feminist reading group. The second half of the book "Simians, Cyborgs and Women," by Donna Haraway, will be the discussion topic. Hurst Lounge, Room 201 Duncker Hall. 935-5102.

Saturday, Nov. 11

9:30 a.m.-noon. Fine arts workshop. "Opening Pandora's Box: Unique Book Structures," William Harroff, National Endowment for the Arts fellowship recipient. Explores the history of books and the diversity of modern book arts. Room 104 Bixby Hall. Cost: \$35. For more info. and to register, call 935-4643.

Dancer Danial Shapiro will be in residence

Dancer-choreographer Danial Shapiro will be in residence in the Performing Arts Department in Arts and Sciences from Wednesday-Friday, Nov. 8-10.

During his residency, Shapiro will teach master classes in modern dance techniques and lead a composition/improvisation workshop. He also will present a free, informal "lecture/demonstration" on choreography titled "Movement and Meaning" at 7 p.m. Thursday, Nov. 9, in the Dance Studio, Room 207 Mallinckrodt Center.

"I plan to talk during my demonstration about the way one chooses and shapes vocabulary for a specific subject," Shapiro said. "I'll talk about what the combinations of posture and gesture, modified with effort, add up to. That is our basic approach to choreography — one that allows my wife and I to address very specific subjects and theatrical situations with an unusual clarity."

Shapiro and his wife, Joanie Smith,

have been creating and performing collaboratively since 1985, when they formed the six-member Shapiro & Smith Dance company. Shapiro & Smith's 1995-96 performance schedule includes dates in Italy, Singapore, Taiwan and Uzbekistan, as well as the Dance Theater Workshop in New York.

Shapiro's visit is funded by a gift to the Performing Arts Department by Morris D. Marcus, M.D., a dermatologist and Washington University professor emeritus of clinical medicine. Marcus established the dance residency program in memory of his wife, Margaret, a dancer, teacher and choreographer.

"The annual Marcus residency is an opportunity for our dance students to experience other approaches to technique and choreography," said Mary-Jean Cowell, Ph.D., associate professor of dance and coordinator of the Performing Arts Department's dance program.

For more information, call 935-5858.

Self-defense workshops open to women

The Washington University Police Department is sponsoring two crime-awareness and self-defense workshops.

The first workshop will be held from 6 to 8 p.m. Monday, Nov. 6, in the multi-purpose room of Wydown East Residence Hall. The second workshop will be held from 6 to 8 p.m. Nov. 13 in the Women's Building Lounge. Both workshops are open to women only.

The workshops will be led by Gary Prindiville Sr., founder of Partners Against Crime.

Prindiville is a corporate security director and former officer with the Jefferson County Sheriff's Department, and he holds two black belts in martial arts. He also has been a professional instructor of employee safety, self-defense, rape awareness and hand-to-hand combat for more than 20 years.

There is no charge for the workshops. For more information, call William F. Taylor, director of University Police, at 935-5514.

'Jordan: One Woman's Journey' features English actress Buffini

English actress Moira Buffini's deeply moving monologue traces the true-life story of a woman waiting to be sentenced for the murder of her 13-month-old son as the one-person play "Jordan: One Woman's Journey" makes its U.S. debut Nov. 10 in the Washington University Drama Studio, Room 208 Mallinckrodt Center.

The play will be staged at 8 p.m. Nov. 10 and 11 and at 7 p.m. Nov. 12 in the Drama Studio. After the Nov. 10 performance, Buffini will join Eric Nuetzel, M.D., of the St. Louis Psychoanalytic Institute for a discussion of the show. The discussion is free and open to the public.

"Jordan" is the true story of Shirley Jones, a single parent who smothered her baby boy, Jordan, and attempted suicide in 1986 after fleeing an abusive husband and turning to prostitution. Award-winning writer Anna Reynolds met Jones while

they both were incarcerated in an English prison. The friendship inspired Reynolds to write "Jordan," which opened to ecstatic reviews in London in 1992. It earned high marks during a 1994 revival at London's Battersea Arts Centre.

The play claimed the 1992 Writers Guild Award for Best Fringe Play, and Buffini earned the 1992 Time Out Award for her performance. The play comes to the United States this year through Rupert Gavin's Incidental Theatre in association with the Dark Horse Theatre Company in London.

The performance is part of Edison Theatre's "Stage Left" series, which presents events in the intimacy of the Drama Studio. Tickets are \$12 for the public and University faculty and staff, and \$10 for University students. Tickets are available at the Edison Theatre box office (935-6543) or through Metrotix (534-1111).

Sports

Compiled by Mike Wolf, director, and David Moessner, assoc. director, sports information.

Men's soccer team heads into postseason

For the sixth consecutive year and the 13th time overall, the men's soccer team is headed for the NCAA Division III national tournament. The top-seeded Bears begin play in the South Central Regional on Friday, Nov. 3, vs. fourth-seeded Rhodes College (Memphis, Tenn.). The two teams tied 1-1 earlier this season at Francis Field. The winner of the Washington-Rhodes game plays the winner of the Wheaton (Ill.) College-University of Wisconsin-Oshkosh match at 7 p.m. Saturday, Nov. 4.

Current record: 14-2-2 (5-1-1, second in the University Athletic Association)

This week: 5 p.m. Friday, Nov. 3, vs. Rhodes College, at Wheaton College

Women's soccer team receives first NCAA bid

One telephone call transformed a great weekend into a phenomenal one for the women's soccer team. First, the Bears claimed their first UAA championship on Saturday, Oct. 28, with a 1-0 win over Carnegie Mellon University (Pittsburgh). The next day, a telephone call came heralding another first — an invitation to the NCAA Division III tournament. The Bears begin postseason play on Saturday, Nov. 4, meeting the winner of the Wednesday, Nov. 1, match between the University of California, San Diego, and California Lutheran University (Thousand Oaks). The Bears capped their remarkable run to the league title as sophomore Vanessa Young drilled a goal in the 70th minute against Carnegie Mellon. Senior goalkeeper Jennifer Donahoe recorded her 22nd career shutout.

Current record: 10-6-4 (4-0-2, UAA champion)

This week: 1:30 p.m. Saturday, Nov. 4, NCAA Division III Championship at Gustavus Adolphus College (St. Peter, Minn.)

Volleyball Bears snare eighth UAA crown

The Bears captured their seventh-consecutive UAA title — and eighth overall — defeating the University of Rochester (N.Y.) 15-12, 15-1, 15-10 in the Saturday, Oct. 28, final held in Waltham, Mass. With five weekend victories, the Bears now have won 83 consecutive UAA matches and are 100-1 since the inception of league play in 1987. All six WU starters received all-UAA recognition. Seniors Shelley Swan and Nikki Gitlin and junior Stephanie Habib were named to the six-player first team. Earning honorable mention all-UAA nods were freshman Jennifer Martz and juniors Emmy Sjogren and Nikki

Holton. Swan, an All-America middle blocker, was selected by league coaches as the UAA most valuable player. Bear coaches Teri Clemens, Joe Worlund and Brent Ruoff were cited as the UAA staff of the year for the ninth consecutive season.

Current record: 34-3 (12-0, UAA champion)

This week: 7 p.m. Wednesday, Nov. 1, vs. Southern Illinois University-Edwardsville, Field House; 9 a.m. Saturday, Nov. 4, at College of St. Francis (Joliet, Ill.); 11 a.m. Saturday, Nov. 4, vs. University of Illinois-Springfield, at College of St. Francis

8-1 Bears wrap up regular season at home

Gunning for only their second nine-win season in the football program's 105-year history, the Bears close out the regular season against Colorado College (Colorado Springs) on Saturday, Nov. 4, at Francis Field. The Bears upped their overall record to 8-1 by handing Case Western Reserve University (Cleveland) a 49-22 defeat on Saturday, Oct. 28. Sophomore quarterback Thor Larsen completed 11 of 22 passes for 221 yards, four touchdowns and no interceptions.

Current record: 8-1 (3-1 UAA)

This week: 1:30 p.m. Saturday, Nov. 4, vs. Colorado College, Francis Field

Cross country teams cruise in WU invite

The women and men's cross country teams placed first and second in the WU Invitational on Saturday, Oct. 28. The meet provided the final tune-up before the NCAA Division III Midwest Regionals, which will be held Nov. 11 in Oshkosh, Wis. Freshman Emily Richard won the women's race with a 5-kilometer time of 18 minutes, 54 seconds. The top WU men's finisher was senior Asa Flanigan, who circled the 4-mile Tower Grove Park course in 20:21 to place second.

This week: Idle

Swimming, diving teams open seasons with wins

The men and women's swimming and diving teams posted winning performances at Millikin University (Decatur, Ill.). The men won five of the nine individual events, while the women claimed eight of the nine races.

Current record: Both teams are 1-0

This week: 6:30 p.m. Friday, Nov. 3, vs. Northeast Missouri State University (Kirksville), Millstone Pool; 1 p.m. Saturday, Nov. 4, vs. DePauw University (Greencastle, Ind.) and University of Missouri-Rolla, Millstone Pool

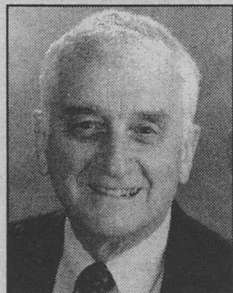


Sophomore Marchette Thurston (left) and freshman Katrina Harris practice their presentations behind the stage in Simon Hall's May Auditorium in preparation for a recent Black Arts and Sciences Festival program on heroes and heroines. Thurston portrayed legendary singer Billie Holiday, and Harris portrayed abolitionist Sojourner Truth.

ARL seeks next-generation technology — from page 1

Ethernet, supports a rate of only 10 million bits per second. Begun in 1991, Project Zeus involves researchers on the Hilltop and Medical campuses from diverse disciplines to provide research images through cyberspace in real time.

Since 1988, the ARL has licensed three technologies: the ATM switch to



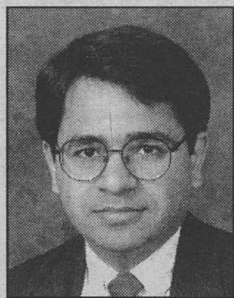
Jerome R. Cox Jr.

Bay Networks, a Santa Clara, Calif.-based company with offices worldwide; ATM signaling software to Bay Networks, Southwestern Bell Co. and Ascom Nexion, a Massachusetts company with a large division in St. Louis; and the multimedia explorer, or MMX, a hardware and software system that allows any workstation to do high-performance multimedia over an ATM network, to a St. Louis company known as STS.

"The emphasis at ARL will continue to be on collaborative, multi-investigator projects in telecommunications and their applications," said Parulkar. "That approach has been successful for us in doing bigger and better things and ultimately licensing our products to industry. In the short-term, everyone here will pretty much do as they have done before. Our focus has now shifted to the next generation and gigabit-per-second (billion-per-second) network technologies and their application for multimedia and distributed imaging applications."

Parulkar received a doctorate in computer science in 1987 from the University of Delaware. He earned a master's degree in electrical engineering in 1983 from the Indian Institute of Technology and a bachelor's degree in 1981 from the University of Indore in India. Since his arrival at Washington University in 1987, he has been an active participant in and co-principal investigator on many of the high-speed networking projects, including Project Zeus. He also was influential in bringing three large projects into the ARL. They are funded by the Advanced Research Projects Agency, the National Science Foundation, the U.S. Air Force's Rome Laboratory and McDonnell Douglas Inc. of St. Louis.

As ARL director, Parulkar oversees 14 full-time engineers and seven full-time faculty; the program supports three master's degree students and six doctoral candidates. Industry and government collaborators at the ARL range from telecommunications giants AT&T Bell Laboratories, Bellcore and Rockwell to the National Institutes of Health, the Air Force and



Guru M. Parulkar

McDonnell Douglas.

As an example of the next-generation network technologies the ARL is working on, Parulkar noted the design and development of a new switch that can economically support thousands of input and output fiber links and multicast/broadcast applications with thousands of recipients. Delivering gigabits to applications makes the workstation's I/O (input/output) subsystem more versatile and distributed — a concept called the desk-area network. To make it a reality, the ARL's engineers are developing a prototype desk-area network and plan to demonstrate its ability to distribute data and interconnect various other computer components and devices, including a video camera, high-definition television and other multimedia devices. The project will culminate with the creation of an extremely fast gigabit network testbed with multiple switching systems supporting link speeds of 600 megabits per second, 1.2 gigabits per second and 2.4 gigabits per second. The testbed also will support desk-area network workstations and server applications at 1.2 gigabits per second.

"It's exciting to be director of ARL because we have a great organization and a very strong foundation in high-speed telecommunications," said Parulkar. "The big challenge will be to stay on top as we have been and convince the market, which is becoming more competitive, that the next-generation technologies we are developing are the things that will make better products in the future."

Cox, who in 40 years at the University has been involved in many of the computing revolutions, will continue to work part time in the ARL with collaborators.

— Tony Fitzpatrick

Scholar Steven Katz to deliver Holocaust Memorial Lecture

Renowned scholar Steven Katz will give the seventh annual Holocaust Memorial Lecture at 11 a.m.

Wednesday, Nov. 8, in Graham Chapel. The lecture, part of the Assembly Series, is titled "The Holocaust and Mass Death: Variations and Differences." Katz also will participate in an informal discussion at 2 p.m. in Lambert Lounge, Room 303 Mallinckrodt Center. Both the lecture and discussion are free and open to the public.

Katz, professor of Near Eastern studies at Cornell University, chaired that department from 1985-88 and the Jewish studies program from 1984-89. He has written and/or edited numerous texts ranging in subject from late-20th-century Judaism to mysticism and philosophy to the Holocaust.

Volume I of his three-part work "The Holocaust in Historical Context," published in 1994, won that year's Outstanding Book Award in philosophy and theology from The Association of American Publishers and was chosen as an outstanding academic book of 1995 by Choice Magazine. Volumes II and III are forthcoming. His 1983 book "Post-Holocaust Dialogues: Critical Studies in Modern Jewish Thought" won the 1984 Jewish Book Award from the Jewish Welfare Board.

Academic consultant to the Simon Wiesenthal Center in Los Angeles, Katz also serves on several editorial boards, including The Encyclopedia of World Spirituality, The International Journal for the Philosophy of Religion and The

Encyclopedia of the Holocaust, a joint venture by Yad Vashem University in Jerusalem and McMillan Publications. He is editor of Modern Judaism, a journal published by Johns Hopkins University Press.

After receiving his bachelor's degree in Hebraic studies and philosophy in 1966



Steven Katz

from Rutgers University, Katz earned a master's degree in Jewish studies and philosophy in 1967 from New York University. He spent several periods as a visiting research student at Hebrew

University of Jerusalem from 1967 to 1972 and earned his doctorate in the philosophy of religion in 1972 from the University of Cambridge, England.

Prior to teaching at Cornell, Katz was visiting professor at several institutions, including Yale and Harvard universities, Dartmouth College and The College of William and Mary.

The annual Holocaust Memorial Lecture was inaugurated in 1989 by Student Union to commemorate the Holocaust and to address the broad implications of such events within a large historical context. Katz will discuss the slaughter of American Indians during the 19th century, the massacre of Armenians early in the 20th century and the Holocaust.

For more information, call 935-5285.

Psychological center moves to West Campus

The Psychological Service Center moved Oct. 13 to Washington University's West Campus.

The center's new address is 7 N. Jackson Ave., and the new campus box number is 1172. The telephone number, 935-6555, remains the same.

The center is part of the Department of Psychology in Arts and Sciences and was housed for 22 years in Eads Hall on the Hilltop Campus. In addition to providing therapy on a sliding-fee scale to people in the St. Louis community, the center provides training opportunities for advanced graduate students in the University's doctoral clinical psychology program. The students are the therapists and are closely supervised by faculty members.

Amy D. Bertelson, Ph.D., director of the center, said the new space and location will be a benefit to St. Louisans who use the center.

"The center looks much more professional in the new location," said Bertelson. "And the new space will make it easier for our clients to find us and to park, so it will enable us to provide better service to the St. Louis community."

Because of the move, the center has expanded to 9,000 square feet from 1,500 in its previous location. This enables the center to provide twice as many therapy sessions and expand its testing services. Previously, testing sessions could take

place only in therapy rooms when they weren't in use. Now the center will have separate spaces for each activity.

Many local hospitals, including Barnes and St. Mary's, refer clients to the center, said Bertelson. The center provides personality and IQ tests, as well as tests for learning disabilities such as hyperactivity and dyslexia. Others that use the testing resources are school-age children and older adults. Therapy sessions are held with individuals and with groups. Group therapy sessions focus on such issues as eating disorders, depression and coping with "difficult" children.

The new space includes expanded video facilities capable of taping sessions in three different therapy rooms simultaneously. Videos are an important way for students to review sessions they have conducted and evaluate their own psychotherapy techniques. Videos also help faculty supervisors review a student's performance, said Bertelson.

The center is offering three different therapy groups: a psychoeducational group for women 22 and older who binge eat or are obsessed with eating; female adult survivors of childhood sexual abuse; and one for parents with "difficult" children. Groups will begin meeting in mid-November. For more information, call the Psychological Service Center at 935-6555.

— Debby Aronson

Project aims for better data-gathering — from page 1

The research emphasizes not only rapid information exchange but also mechanisms that support creative and productive use of information.

"Our goal is to empower people not only to find information in a global electronic infrastructure but also to combine and analyze that information for the creation of new knowledge," Goldman said.

As an example of "new knowledge," Goldman cited collaboration with Rudolf B. Husar, Ph.D., professor of mechanical engineering and director of the University's Center for Air Pollution Impact and Trend Analysis (CAPITA), the world's largest private collection of air pollution data. Goldman will try to apply his tools to Husar's need to gather and analyze air pollution data from servers as diverse as satellites and government and university databases to industry servers.

The tools would allow CAPITA re-

searchers to bring data together from different sources, interactively browse the data, analyze it to provide explanations and support the management of pollution problems.

Similarly, with the aid of Goldman's tools, business people could draw upon vast resources to study global economies, for instance, and scientists and doctors could launch many different research projects, drawing on information around the world.

"As computer scientists, our job is to put tools in people's hands so that they can make the best use of the information available," Goldman said. "People often know what kinds of data they want to gather and how they want to combine it, but they usually don't want to spend a lot of time writing software. They want a system that will help them put together easily what they need. That's what we're trying to provide."

— Tony Fitzpatrick

Introducing new faculty members

Hilltop Campus:

Karen A. Fiss, Ph.D., assistant professor of art history and archaeology in Arts and Sciences, comes from Yale University, where she received a doctorate in 1995 in the history of art. She previously held curatorial and publications positions at The New Museum of Contemporary Art in New York and the Institute for Contemporary Arts in London. Her research interests include 20th-century European art and culture, contemporary art and critical theory. She received a bachelor's degree in art history and studio art in 1985 from Brown University.

Ron Fondaw, professor of art, comes from the University of North Carolina at Chapel Hill, where he was a visiting professor of art. He also has taught at the University of Miami in Coral Gables, Fla., and Ohio University in Athens. He is a ceramic sculptor whose large-scale works in clay have earned him a national and international reputation. Fondaw received a bachelor's degree in fine arts in 1976 from the Memphis College of Art in Tennessee and a master's degree in fine arts in 1978 from the University of Illinois in Urbana-Champaign.

Karen A. Porter, J.D., associate professor of law, comes from the Albert Einstein College of Medicine in New York, where she was an assistant professor in the Department of Epidemiology and Social Medicine. Her research includes legal and ethical obligations that confront AIDS in African-American communities and other medical ethics issues. She received a bachelor's degree in philosophy in 1986 from Yale University and a law degree in 1990 from Yale.

John G. Robertson, Ph.D., assistant professor of social work, comes from Columbia University, where he received a doctorate in social policy in 1995. He has taught at New York, Columbia and Rutgers universities. Among his research interests are non-residential fathers, non-marital parents, community development, and employment for individuals with few skills. He received a master's degree in social work in 1990 from Rutgers in New Brunswick, N.J., and a bachelor's degree in economics in 1972 from St. John's College at the University of Manitoba in Winnipeg, Canada.

Medical Campus:

J. Perren Cobb, M.D., assistant professor of surgery, comes from the University of California, San Francisco, where he was a general surgery resident. His research interests focus on the causes and treatments for septic shock due to infection and trauma. He received a bachelor's degree in molecular biology in 1982 from Vanderbilt University in Nashville, Tenn., and a medical degree in 1986 from the University of Louisville School of Medicine in Kentucky.

Linda M. Mundy, M.D., assistant professor of medicine, comes from the Johns Hopkins University School of Medicine in Baltimore, where she was a postdoctoral fellow in infectious diseases. Her clinical research focuses on pneumonia, diarrheal diseases and HIV infection of women. Mundy received a bachelor's degree in science in 1978 from Pace University in Pleasantville, N.Y., and a medical degree in 1988 from the Johns Hopkins University School of Medicine.

Gary G. Singer, M.D., assistant professor of medicine, comes from Brigham and Women's Hospital in Boston, where he was a fellow in renal medicine. His immunological research focuses on peripheral T-cell tolerance and antigen-specific ways to prevent rejection of kidney transplants. He received a medical degree in 1987 from the University of Toronto and completed an internship and residencies at St. Michael's Hospital in Toronto and Toronto General Hospital.

For The Record

For The Record contains news about a wide variety of faculty, staff and student scholarly and professional activities.

Of note

Thomas E. Conturo, M.D., Ph.D., assistant professor of radiology at the School of Medicine's Mallinckrodt Institute of Radiology, and **Raymond M. Hau**, a student at the School of Medicine, received a one-year Howard Hughes Medical Institutes Research Training Fellowship. The \$24,500 award will fund their project titled "Functional Magnetic Resonance Imaging." ...

David S. Gierada, M.D., instructor in radiology at the School of Medicine's Mallinckrodt Institute of Radiology, received a \$20,000 Seed Grant Award from the Radiological Society of North America's Research and Education Fund. Gierada will use 3-D magnetic resonance imaging to study changes in respiratory functions following lung-volume-reduction surgery in patients with emphysema. ...

Five faculty members at the School of Medicine's Mallinckrodt Institute of Radiology were appointed fellows by the American College of Radiology's board of chancellors. They are **Harvey S. Glazer, M.D.**, professor of radiology in the Division of Diagnostic Radiology, chest section; **Perry W. Grigsby, M.D.**, professor of radiology in the Radiation Oncology Center; **Thomas R. Miller, M.D., Ph.D.**, professor of radiology in the Division of Nuclear Medicine; **Daniel D. Picus, M.D.**, professor of radiology and chief of the vascular and interventional radiology section; and **William G. Totty, M.D.**, professor of radiology in the diagnostic radiology division's musculoskeletal section. ...

Anne V. Hing, M.D., instructor in pediatrics, received a \$539,040 five-year grant from the National Institute of Child Health and Human Development for a project titled "Molecular Basis of Pre-axial Polydactyly Type 2." ...

Kenneth F. Kelton, Ph.D., professor of physics in Arts and Sciences, received a \$242,000 Special Creativity Extension two-year award from the National Science Foundation for his research on the formation, structure and properties of the titanium-based quasicrystals, many of which were discovered by his research group at Washington University. ...

Marc S. Levin, M.D., assistant professor of medicine, received an \$809,558 four-year grant from the National Institute of Diabetes and Digestive and Kidney Diseases for a project on "Nutrient Modulation of Gene Expression in Gut Adaptation." ...

J. Gail Neely, M.D., professor of otolaryngology, received the American Academy of Otolaryngology-Head and Neck Surgery's Distinguished Service Award. Neely received the award during the academy's 99th annual meeting in New Orleans. ...

William A. Peck, M.D., executive vice chancellor for medical affairs and dean of the School of Medicine, received the 12th annual Goldstein-Fleishman Geriatric Excellence Award from the Jewish Center for Aged of Greater St. Louis. The award honors Peck's lifelong commitment to the concerns of the elderly and his dedication to establishing the school's Division of Geriatrics and Gerontology. Peck is a member of the center's board of directors. ...

Joel S. Perlmutter, M.D., associate professor of radiology at the School of Medicine's Mallinckrodt Institute of Radiology and associate professor of neurology, received a \$100,000 award from the Nettie and Rebecca Brown Foundation to further his research on Parkinson's disease. ...

On Nov. 11, **Edward A. Wallace**, University organist, will receive an honorary doctor of music degree from Nashotah House, a theological seminary of the Episcopal Church located near Milwaukee.

Speaking of

Garland E. Allen, Ph.D., professor of biology in Arts and Sciences, presented a paper on "The Biological Basis of Crime: An Historical and Methodological Study" at a National Institutes of Health conference titled "The Meaning and Significance of Research on Genetics and Criminal Behavior." The conference was held on the eastern shore of Maryland. ...

During the Southeast Conference on Public Administration in Savannah, Ga., **Kathleen Clark, J.D.**, assistant professor of law, presented a paper on government ethics regulation and the fiduciary obligation. ...

John N. Drobak, J.D., professor of law, presented a workshop at the University of Illinois law school in Urbana-Champaign. The workshop focused on the relationship between the contract clause, public debt obligations and American economic growth. ...

During the International Conference on Finance for Development and Peace at the University of Rotterdam, the Netherlands, **David Felix, Ph.D.**, professor emeritus of economics in Arts and Sciences, lectured on the Tobin tax on currency trading. ...

Edwin Hiss, Ph.D., administrative officer in the Department of Chemistry in

Arts and Sciences, **Nancy Picker**, storeroom supervisor, and **Gerry Rohde**, storeroom assistant, attended the National Association of Scientific Material Managers conference in Chicago. The conference focused on the demands and problems of materials management and safety. ...

Mohammad A. Masad, a doctoral candidate in Islamic history in Arts and Sciences, participated in a graduate student workshop on the cultural studies and history methods in the study of the Middle East. The workshop, held in Istanbul, Turkey, was sponsored by the Social Science Research Council and the U.S. Information Agency in cooperation with the American Research Institute in Turkey. ...

Robert P. Morgan, Ph.D., Elvera and William Stuckenberg Professor of Technology and Human Affairs and director of the Center for Technology Assessment and Policy, presented a seminar titled "Research on Academic Engineering Research: Forging New Links With Industry" at George Mason University's Institute of Public Policy in Fairfax, Va. ...

At the 13th annual College and University Hazardous Waste National Conference in Minneapolis, **Dennis R. Nagy**, manager of environmental services for the Hilltop Campus, presented a paper titled "Internet Safety and Regulatory Resources." ...

Murray L. Wax, Ph.D., professor emeritus of anthropology in Arts and Sciences, delivered the opening lecture of the St. Louis Psychoanalytic Institute's educational series. His talk was titled "Dancing at Two Weddings: Biomedical and Hermeneutic Approaches to Psychoanalysis." He delivered the presentation at the institute's headquarters, 4524 Forest Park Blvd. In addition, he was named editor of *The Independent Scholar*, a quarterly journal published by the National Council of Independent Scholars.

On assignment

Solon Beinfeld, Ph.D., associate professor of history in Arts and Sciences, was appointed a consultant for the Kovno Ghetto exhibit at the Holocaust Museum in Washington, D.C. The exhibit is scheduled for 1997.

Guidelines for submitting copy:

Send your full name, complete title, department, phone number and highest-earned degree, along with a typed description of your noteworthy activity, to *For The Record*, c/o Carolyn Sanford, Campus Box 1070, or p72245cs@wuvmd.wustl.edu. Items must not exceed 75 words. For information, call Sanford at 935-5293.

Social work school honors alumni, dean's medalists

The George Warren Brown School of Social Work recently honored three Outstanding Alumni and four Dean's Medal recipients for 1995 as part of the school's 70th anniversary celebration at Washington University.

The Outstanding Alumni awards are presented annually to graduates who have attained distinction in their careers. Honorees are selected on the basis of accomplishments in social work and service to the school.

The Dean's Medal, a new award launched this year in honor of the school's anniversary, is presented to exceptional individuals who have given generously to the school and advanced its mission through their leadership, counsel and support.

The Outstanding Alumni are James O. Billups, a 1970 doctoral graduate and faculty member at Ohio State University's College of Social Work in Columbus; Phyllis A. Rozansky, a 1974 master's degree graduate and the first executive director of Family Investment Trust, a statewide organization based in St. Louis that works to improve services for children and families by fostering better relations between communities and state government; and Toshio Tatara, a 1969 master's degree graduate and director of the Research and Demonstration Department at

the American Public Welfare Association in Washington, D.C. The bipartisan non-profit association represents state human-service agencies.

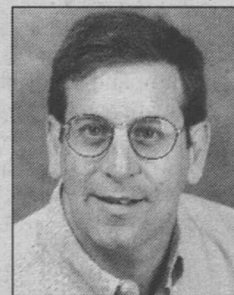
The Dean's Medal recipients are Kathryn M. Buder, who has established several scholarships and the Kathryn M. Buder Center for American Indian Studies at the school; James Lee Johnson Jr. and Bettie Schroth Johnson, husband and

wife, who in 1986 established the school's Bettie Schroth Johnson Program in Social Service Management for women entering organizational management; and Roma Broida Wittcoff, a member of the school's National Council as well as an active volunteer and leader on numerous campus advisory groups and task forces. James Johnson and Wittcoff are members of the Board of Trustees.

Campus Authors

The following is a recent release available at the Campus Bookstore in Mallinckrodt Center on the Hilltop Campus or at the Washington University Medical Bookstore in the Olin Residence Hall. For more information, call 935-5500 (Hilltop Campus) or 362-3240 (School of Medicine).

"Domestic Choices, International Markets: Dismantling National Barriers and Liberalizing Securities Markets" is the title of a book by **Andrew C. Sobel, Ph.D.**, assistant professor of political science in Arts and Sciences. The internationalization of financial markets moved to center stage in the international political economy during the 1980s. These markets affect trade, investment, venture enterprises, growth and competitiveness. "Domestic Choices" uses the internationalization and liberalization of securities markets to examine interdependence, leadership and the mechanisms of change in an increasingly global political economy. (The University of Michigan Press, Ann Arbor)



Opportunities & personnel news

Hilltop Campus

The following is a list of positions available on the Hilltop Campus. Information regarding these and other positions may be obtained in the Office of Human Resources, Room 126 North Brookings Hall, or by calling 935-5990.

Associate Program Director, Professional MBA Program 960081. John M. Olin School of Business. Requirements: master's degree; demonstrated interpersonal skills; demonstrated written and verbal communication skills; education about and/or experience in the design, administration and interpretation of skills/knowledge assessment instruments strongly preferred. Hours: 10:30 a.m.-7 p.m. Monday-Thursday; 8:30 a.m.-5 p.m. Friday.

Associate Director of University Communications, Director of News and Information for John M. Olin School of Business 960083. Office of Public Affairs. Requirements: bachelor's degree, preferably in journalism or communications; three to five years professional journalism experience preferred. Application required.

Administrative Secretary 960085. University College. Requirements: high school graduate, some college preferred; ability to meet public in a pleasant and professional manner; ability to handle multiple tasks and establish priorities under pressure; excellent verbal and mathematical skills; willingness to work one evening a week until 7 p.m. Application required.

Administrative Assistant 960087. Research Office. Requirements: high school graduate, some college, associate's degree preferred; three years office experience; ability to maintain confidentiality and work independently; familiarity with PC/Windows; knowledge of Microsoft Word; superior communication skills. Résumé and references required. This position is split between the Medical and Hilltop campuses.

Interlibrary Loan/Document Delivery Assistant 960089. Olin Library. Requirements: two years of college; experience in libraries or courses in librarianship preferred; working knowledge of computers and fax machines; ability to organize workflow and to perform detailed work with accuracy; legible handwriting; reading knowledge of foreign languages helpful; familiarity with major bibliographic sources helpful; ability to work independently with minimal supervision; ability to work well with others and to respond to the public in a courteous and helpful manner; ability to work under pressure; willingness to work afternoons and evenings when classes are in session and days when the library is not open in the evening. Application required.

Biology Lab Technician 960090. Department of Biology. Requirements: bachelor's degree; some experience in benchtop biological science; knowledge of, or a willing-

ness to learn, techniques in cell culture and computerized microscopy; experience with recombinant DNA techniques preferred. After training, technician will carry out experiments independently. Opportunities for co-authorship on scientific papers will be available.

Facility Manager 960094. Arts and Sciences Computing Center. Requirements: bachelor's degree in social sciences, computer science or equivalent experience; demonstrated strong problem-solving skills; attentiveness to detail; experience with UNIX-based operating systems, Lans, Novell and Internet services; ability to work independently in an academic environment; experience providing support in a highly technical area and commitment to user support; excellent verbal and written communication skills. Application required.

Assistant Director of Development Services 960095. Development Services. Requirements: bachelor's degree; knowledge of a programming language; expert knowledge of personal computers, DOS and Windows plus; knowledge of Lans, database system design; experience with Windows NT or Novell; experience with Lotus Notes highly preferred. Application required.

Engineer (Relief) 960096. Euclid Power Plant. Requirements: high school graduate; proven mechanic skills. Hours: 2:30 to 10:30 p.m. Monday-Friday. Application required.

PC Systems Manager 960097. Center for the Application of Information Technology. Requirements: bachelor's degree; high level of skill in debugging and trouble-shooting system set-up and software-installation problems; experience with DOS, Windows and network; knowledge of UNIX, Netscape, HTML, D, Perl or C preferred; punctual; strong organizational skills; good work ethic; effective interpersonal communication skills. Application required.

Biology/Chemistry/Earth Sciences Libraries Assistant 960099. Olin Library. Requirements: two years of college, bachelor's degree preferred; library work experience preferred; ability to organize work and to perform detailed work with accuracy; ability to work independently with minimal supervision; ability to type accurately and quickly; word processing experience preferred; ability to work well with others and to respond to the public in a courteous and helpful manner; strong verbal and written communication skills; physical stamina; flexibility and adaptability to various work schedules and environments; willingness to work occasional night and weekend hours during the spring and fall semesters. Application required.

Associate Director, Faculty and Academic Services 960100. Arts and Sciences Computing Center. Requirements: bachelor's degree; ability to work with faculty, students, staff and interface with the University at all levels; demonstrated skills with Unix-based operating systems, personal computing and Internet services; ability to

work independently in an academic environment; experience providing support in a highly technical area and commitment to user support; excellent verbal and written communication skills. Application required.

Cashier 960104. Accounting Services. Requirements: high school graduate; one year cashiering or comparable handling experience; ability to organize and account for a heavy, steady volume of checks and cash with a high degree of accuracy; demonstrated customer-service skills, including the ability to be courteous under all circumstances; ability to learn two complex computer systems; willingness to work additional hours as required; flexibility to work at Hilltop or Medical campuses. Hours: 10 a.m. to 2 p.m. daily. Application required.

Receptionist 960105. Accounting Services. Requirements: college degree or business or vocational school training; excellent interpersonal communication skills, particularly on the telephone; ability to participate as a team member on various projects to achieve the goals of Accounting Services; one year receptionist experience; PC word processing experience, including Windows and e-mail; excellent diction, grammar, punctuation and spelling skills; ability to work on multiple-line telephone set; excellent attendance record; ability to handle multitask functions. Application required.

Accounts Payable Service Representative 960106. Accounting Services. Requirements: high school graduate, courses in business accounting preferred; working knowledge of routine office equipment, including PC, calculator and typewriter; strong communication, organizational and alpha numeric skills; good judgment; word processing, spreadsheet and database experience highly preferred; service-oriented; ability to participate as a team member on various projects to achieve the goals of Accounting Services. Application required.

Medical Campus

The following is a partial list of positions available at the School of Medicine. Employees who are interested in submitting a transfer request should contact the Human Resources Department of the medical school at 362-4920 to request an application. External candidates may call 362-7195 for information regarding application procedures or may submit a résumé to the Human Resources office located at 4480 Clayton Ave., Campus Box 8002, St. Louis, MO, 63110. Please note that the medical school does not disclose salary information for vacancies, and the office strongly discourages inquiries to departments other than Human Resources.

Medical Research Technician 960299-R. Renal Division. Requirements: bachelor's degree in biology, biochemistry or chemistry; six to 12 months of lab re-

search experience involving molecular biology, genetic or cell biology techniques.

Medical Research Technologist 960307-R. Ophthalmology. Requirements: bachelor's degree in scientific field; two years recent lab experience; DNA cloning and sequencing experience.

Dialysis Tech II 960311-R. Kidney Center. Requirements: high school graduate or equivalent; willingness to work Saturdays; experience as a medical assistant, nurse's aide or phlebotomist preferred. Duties include performing all activities of patient care and related functions.

Data Control Coordinator 960312-R. Bone Marrow Transplant. Requirements: some college, bachelor's degree or nursing degree preferred; experience in data-management preferred; knowledge of medical records and terminology.

Manager, Financial Operations 960324-R. Internal Medicine. Requirements: bachelor's degree,

master's degree in accounting, business or healthcare administration preferred; certified public accountant with supervisory experience preferred. Responsibilities include handling all departmental finances and strategic planning.

Manager, Patient Financial Service 960329-R. Washington University Shared Billing and Collection Services. Requirements: bachelor's degree in business or related field with three years healthcare reimbursement experience. Responsibilities include developing programs to maximize the reimbursement for the medical school.

Research Patient Coordinator 960330-R. Infectious Diseases. Requirements: bachelor's degree in nursing, public health or natural science; two years related experience; working knowledge of computers and data entry; statistical background preferred.

Receptionist-Typist 960331-R. Respiratory and Critical Care. Requirements: high school graduate

or equivalent, some business school preferred; receptionist or front desk experience; experience with Macintosh; typing 50 wpm.

Coordinator: Medical Coding and Claims 960363-R. Washington University Shared Billing and Collection Services. Requirements: associate's degree; four years related experience in medical insurance collection and supervision; knowledge of all third-party carriers; experience with the IDX system.

Clerk Typist II 960368-R. Lipid Research. Requirements: high school graduate or equivalent; familiarity with medical terminology; experience with WordPerfect; typing 50 wpm.

Environmental Tech I 961088-R. Environmental Safety. Requirements: high school graduate or equivalent, some college preferred. Responsibilities include handling chemicals and infectious waste; familiarity with scientific/math calculations and background in chemistry or biology preferred.

Campus competition boosts United Way drive

A little healthy competition between the Hilltop, West and Medical campuses is making Washington University's annual United Way campaign more successful than ever, organizers said.

"The between-campus competition has generated more contributions than we've ever had in the past," said Clarence C. Barksdale, coordinator for the University's campaign and vice chairman of the Board of Trustees. "We are well on our way to our \$300,000 goal."

The campaign so far has raised more than \$260,000 and is scheduled to end early this month. This year, for the first time, the three campuses were encouraged to compete against each other.

"Any gift at any level is greatly appreciated," said Barksdale. "We are interested in getting everyone to participate."

West Campus organizers held a meeting Sept. 20 to rally their participants. The speakers were Barksdale; William H. Danforth, chairman of the Board of Trustees; Tad Dageford, United Way representative; and Susan Richard, executive director of the Progressive Youth Center, a social-service agency that receives United Way funds. Since then, West Campus employees have received several fliers reminding them about the campaign and asking for a donation.

In addition, West Campus contributors will be eligible for a raffle. Prizes will include tickets to the St. Louis Symphony and Edison Theatre, St. Louis Rams memorabilia, and complimentary meals from Bryan's Restaurant, Blueberry Hill and Charlie Gitto's on the Hill.

The drawing will be held Thursday, Nov. 2.

The Hilltop Campus organizers held a breakfast meeting Sept. 21 to rally the campaign coordinators on their campus. Individual departments also have had rallies. The Department of Facilities Planning and Management on Oct. 20 held a rummage and bake sale, which raised more than \$800.

The School of Law held its third annual rummage sale on Friday, Oct. 27. The law school is holding a drawing for a \$100 gift certificate to Cardwell's restaurant.

The Office of Human Resources on the Hilltop Campus gave each contributor in the office a cookie created by Cookies By Design as a token of thanks. The office also gave cookies to those who hadn't donated as a reminder to contribute.

The Hilltop faculty and staff have donated or pledged about \$85,000 so far, and the West Campus has donated or pledged about \$51,000.

The School of Medicine's approach this year was somewhat low-key, said organizer Laurel Forsythe, employee relations specialist. Many departments held rallies over coffee and doughnuts and brown-bag lunches, where they showed the United Way campaign video. The School of Medicine has donated almost \$125,000.

As a gesture of his appreciation for the campus community's participation, Chancellor Mark S. Wrighton, Ph.D., will send a special token of thanks to each contributor at the campaign's conclusion.

Quality enrollment stressed — from page 1

said. The University invited freshmen this fall to enroll in programs that involved cross-disciplinary pursuits. For example, a freshman might pursue degrees in both the School of Engineering and Applied Science and in the College of Arts and Sciences or pursue majors in both the John M. Olin School of Business and in Arts and Sciences.

The fall 1995 total enrollment of 10,122 students in day-school, degree-granting programs includes 4,993 undergraduates and 5,129 graduate students.

The University intentionally has maintained about the same enrollment for many years, focusing on quality of students rather than quantity, said Stuart D. Yoak, University registrar.

The following are the total daytime enrollments this academic year in each school: **Architecture**, 198 undergraduates and 142 graduates; **Art**, 292 undergraduates and 40 graduates; **Arts and Sciences**, 2,925 undergraduates and 1,379 graduates; **Business**, 640 undergraduates, 574 graduates and 102 stu-

dents in the executive master's of business administration program; and **Engineering**, 461 undergraduates, 456 Sever undergraduates and 788 graduates.

The **School of Medicine's** fall 1995 enrollment is as follows: 475 graduates in medicine, 21 undergraduates in occupational therapy, 198 graduates in occupational therapy, 237 graduates in physical therapy, 70 graduates in health administration, and one graduate in psychiatric epidemiology.

At the **School of Law**, 610 students are enrolled in the law program, and 37 students are enrolled in the graduate-level law program. The **George Warren Brown School of Social Work** has 476 graduate students.

The fall 1995 enrollment for **University College** totals 756 undergraduates and 389 graduates. The **engineering technology** program has 156 undergraduates; the **architecture technology** program has 54 students; and the **Fine Arts Institute** has five students.

— Michael Slatin

Campus Watch

The following criminal incidents were reported to the University Police Department Oct. 23-29. Readers with information that could assist the investigation of these incidents are urged to call 935-5555. This release is provided as a public service to promote safety awareness on campus.

Oct. 25
3:55 p.m. — A person who reportedly was distributing menus from a local restaurant in Brookings and January halls was escorted off campus by University Police.

Oct. 28
4 p.m. — A student reported the theft of a wallet, which contained \$8, a University ID card, a driver's license and a credit card,

from the Athletic Complex. The theft occurred between 4 and 7 p.m. Friday, Oct. 27.

Oct. 29
12:15 a.m. — A student reported being struck in the face by an unidentified subject after a verbal argument in a parking lot near Givens Hall. The student was treated for a cut lip at a local hospital.