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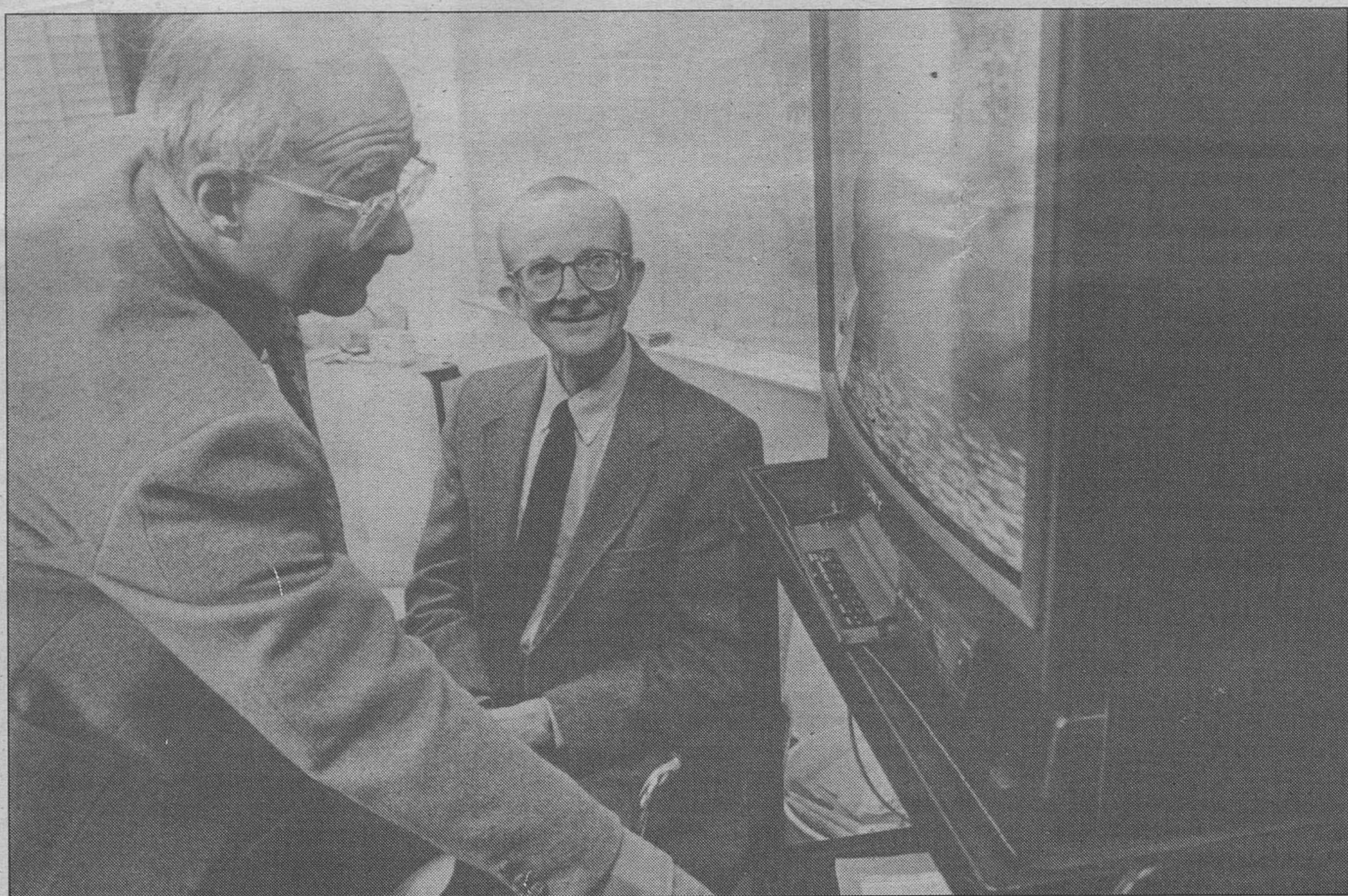
Washington University Record, February 10, 1994

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Robert H. McDowell (left), Ph.D., professor of mathematics and director of the Teaching Center, reviews a videotape with James Davis, Ph.D., professor of political science, in the Teaching Center, Room 126 Prince Hall.

Teaching Center

Coaching team helps faculty who want to improve teaching skills

Washington University is a place for learning. This understanding applies as well to teachers as to students; whether they be experienced tenured professors or new faculty members.

This is the premise behind Washington University's Teaching Center. The center was founded in 1990 following a recommendation by the Committee on a Center for Teaching at Washington University. It is modeled after teaching programs at Harvard University and Carnegie Mellon University and relies on classroom videotaping and workshops to keep pace with changing teaching methods and improve techniques. The center's coaching team combines the skills of the former chair of the mathematics department and an assistant drama professor.

"We were given a very broad charge: To enhance teaching efforts at Washington University. Period," said Director Robert H. McDowell, Ph.D., professor of mathematics. "For two years, we were relatively low key. We're starting to step it up now."

The Teaching Center is housed in Room 126 of Prince Hall, a small room cluttered with audio-visual and videotaping equipment, hand-me-downs from the School of Dental Medicine. McDowell, who chaired the mathematics department for 16 years, is

the center's only full-time staff member. Eventually, he said he would like to see the room transformed into a comfortable teacher's lounge with couches and chairs. Until then, the center is a place where faculty members just come to work.

All of the faculty who seek out the Teaching Center share a commitment to improving their teaching skills. Men and women are represented equally and most are undergraduate professors, though some come from graduate programs.

"A lot of faculty will come in and say, 'Some teachers can walk in the room and immediately have command of the class. How do they do it?'" McDowell said.

McDowell relies heavily on videotaping to help the faculty improve their teaching. An unobtrusive teaching assistant videotapes the professor in class. McDowell reviews the tape, makes notes, then watches it again with the professor. Together, they discuss areas that need improvement. This consultation promotes an ongoing habit of self-evaluation and experimentation that faculty have found helpful, McDowell said.

Each semester, the Teaching Center also sponsors three Lecture Presentation Skills Workshops by David Kuhns, assistant professor of drama. During the intense seminars, Kuhns teaches four faculty how to think more like actors and less like professors.

"When actors are in front of the public, they're always thinking about how they're coming across as a performer. Faculty only think about their performance 10 percent of the time," McDowell said. "David helps them with eye contact, use of notes, transitions, authority in the classroom, voice projection. They are strictly actors' stock and trade and some of them run counter to the profession. For example, actors pause for effect. They know that the longer the pause, the firmer the entrance must be. Professors don't think that way. They pause to look at their notes or to collect their thoughts."

The secret, Kuhns said, is tapping a professor's inherent love of his subject and projecting it to the audience.

"There is a reason why teachers do not just study a subject as an undergraduate and go on to be bankers or something," Kuhns said. "They enjoy their field of expertise. We try to help teachers share that joy with their students, to make that energy effective and infective, contagious."

Kuhns said he and McDowell have helped professors from all disciplines and all levels of experience.

"Just the fact that they show up to the workshop means that they want to improve their teaching, which is at the heart of

Continued on page 6

Cluster seeks input from faculty, staff to improve services

The following story focuses on the efforts of the Administrative Services Cluster. Future issues will detail the work of the Admission-Financial Aid Cluster and the Student Experience Cluster.

It's happening in all corners of the Hilltop Campus:

- Beginning this week, the Faculty Computing Resource Center is holding monthly brown-bag lunches for faculty to address computing problems and/or topics of interest.

- Accounting Services is using the team approach to work with users of its financial information systems.

- Facilities Planning and Management Department recently published a "quick reference guide" that explains its services and lists the names and numbers of the key people responsible for them.

These changes all represent small steps toward a larger goal: improving services at Washington University, while reducing costs.

These initiatives also represent the ongoing work of the Administrative Services Cluster, a group of 40 members from areas of the University's central administration or Central Fiscal Unit (CFU) and every Hilltop school. The CFU includes a wide range of administrative units, including accounting, admission, alumni affairs, computing facilities, human resources, libraries, physical facilities and student affairs.

The University Management Team, which consists of some 75 CFU managers and the school deans, organized the Administrative Services Cluster and two other clusters last year to help the CFU better understand the learning, teaching and research needs of the students and faculty it serves. The other two clusters are an Admission-Financial Aid Cluster and a Student Experience Cluster.

The Administrative Services Cluster (ASC), which has been meeting every Wednesday since last March, is co-chaired by Nicholas Burckel, associate dean of libraries for collections and services, and Marilyn Pollack, associate director of financial planning.

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USA Today spotlights senior Abraha Taddese

Senior Abraha Taddese once delivered USA Today newspapers in his Stockton, Calif., hometown.

On Feb. 4, the classics and biology major became part of USA Today's headlines.

Taddese was one of 20 seniors named to the newspaper's All-USA College Academic First Team, whose members were profiled in the Feb. 4 issue of USA Today. The students, who each received a \$2,500 award, also were honored during an awards luncheon at the newspaper's headquarters in Arlington, Va. The first team was selected from 1,183 scholars nominated by their colleges and universities. In addition, 20 students were named to second and third teams.

Receiving awards is great, said Taddese, as he described how it feels to be featured in one of the nation's largest newspapers. "But when I think about what I want to do with my life, I don't want to just get awards. I want to do something useful."

For Taddese, a John B. Ervin Scholar, doing something "useful" includes helping others, even when he receives honors. When he was interviewed by USA Today, for example, he mentioned the Ervin scholars program. Taddese, who has served on the interview committee for the program, said he believes the scholarships

offer black students "extraordinary opportunities." He added that the newspaper interview was a chance to gain national visibility for the program.

Taddese also hopes to help others through his research on pain, which was the major factor in his appointment to the team. Besides original research and the ability to describe their work in writing, candidates were judged on academic performance, honors, awards and rigor of academic pursuits.

Taddese's work allows pain researchers to test treatments for pain without having to inflict it. Last year he received a fellowship to work at Oregon Health Sciences University in Portland. While working in the lab of Edwin W. McCleskey, Ph.D., former associate professor in the Department of Cell Biology and Physiology, Taddese used a fluorescent marker called DiI to identify nerve cells that sense pain. He distinguished those cells from others that sense pressure or temperature or control muscle movement.

In his essay describing his work to the team judges, Taddese quoted Albert Schweitzer who said "Pain is a more terrible lord of mankind than even death itself."

"Yet we know precious little about it," Taddese added. "Prolonged pain, such as

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Researchers find a way to keep bacteria from gaining stronghold in human body

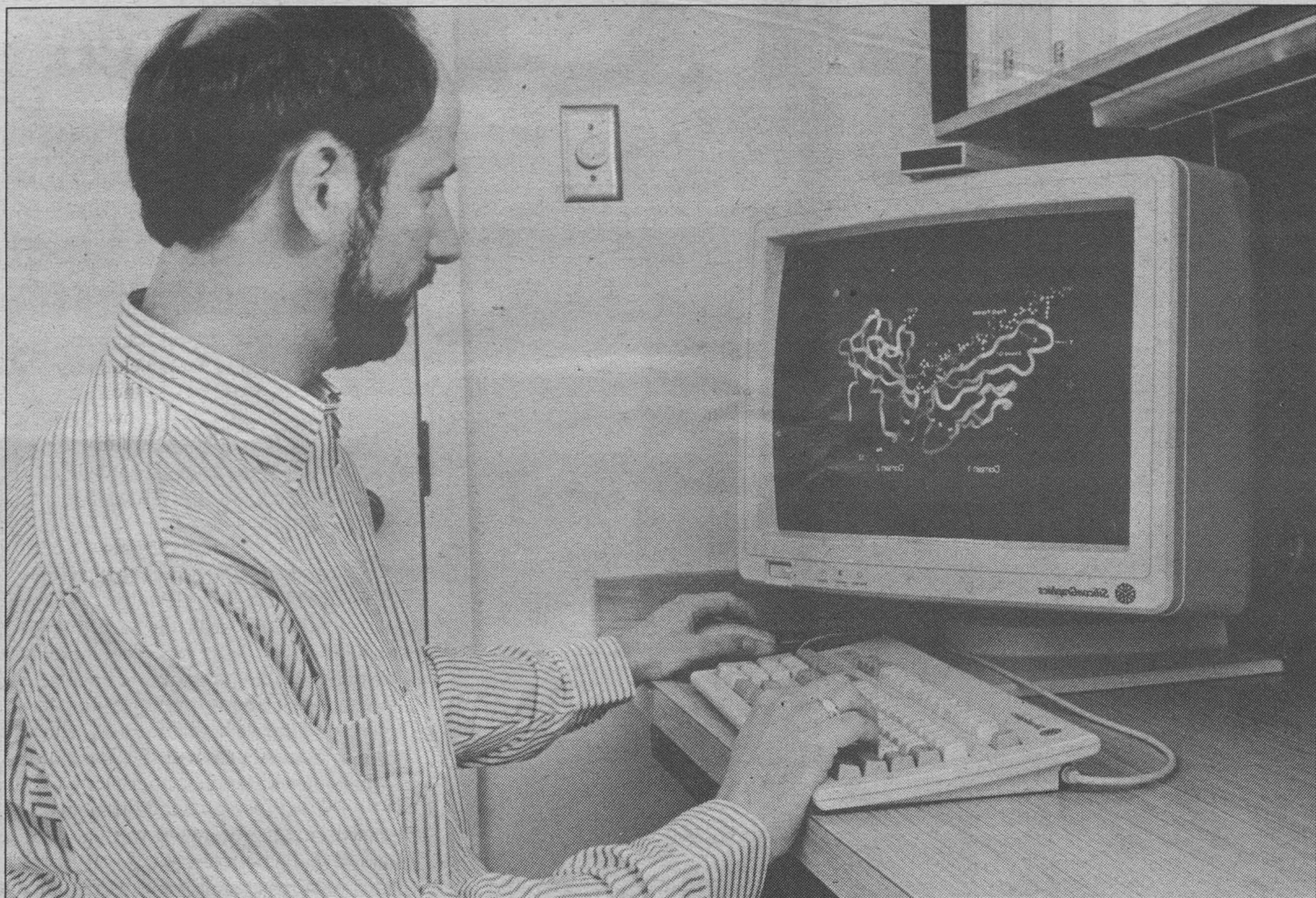
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Plastic surgeon Vernon Leroy Young, M.D., works to develop a safer breast implant option

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Maurice Sendak's classic tells the story of a young girl with a grand imagination

Medical Update



Scott Hultgren, Ph.D., assistant professor of molecular microbiology, studies boomerang-shaped protein papD. These proteins oversee the assembly of pili, which bacteria use to attach to human tissues.

Balding bacteria

Scientists' findings could improve treatment for bacterial infections

Scientists have devised a way to make bacteria go bald, losing their "hair" and with it their ability to adhere to throats, nasal passages, kidneys and other human tissues they love so well.

The idea, unveiled in a recent issue of the journal *Science*, is to use a newly designed peptide to collapse the scaffolding the bacteria use to assemble pili, thousands of hair-like projections with sticky tips that enable bacteria to gain a stronghold in the human body. Without the scaffolding, bacteria are unable to construct adhesive pili and they are washed off tissues by body fluids, said author Scott J. Hultgren, Ph.D., assistant professor of molecular microbiology at the School of Medicine.

Hultgren's research team recently produced the first molecular snapshot of the bacterium *E. coli* in the process of assembling the machinery it uses to build its adhesive projections. More importantly, the pictures showed that a peptide designed by the researchers interferes with this construction process and grinds it to a halt. The pictures, produced in collaboration with Derek J. Ogg, Ph.D., of Symbicom Pharmaceutical in Sweden, were formed by X-ray bombardment of crystallized bacterial proteins purified by research technician Jerry Pinkner. These snapshots are a blueprint for new drugs that block the formation of these hair-like projections that *E. coli* depend on for proper adhesion to human tissues, Hultgren said.

E. coli may be endearing to scientists because of its utility in the laboratory, but in the wild various strains of *E. coli* are ruthless pathogens capable of causing urinary tract and bladder infections and possibly death, as in the famous Jack-in-the-Box Restaurant food poisoning cases. Ordinary antibiotics can curb some infections, but scientists feel that more sophisticated treatments will be needed in the future. Hultgren believes that more detailed knowledge about *E. coli* should fuel future drug design. "We began these studies on uropathogenic *E. coli* because it is a major pathogen, particularly in women," he said. "Our goal was to find out how the bacteria are able to gain a foothold in the host and not be washed away."

The answer, they and others found, is that the bugs are adorned with sticky hairs called pili. Pili, it turns out, are much more complicated than they seem. They do not stick to tissues randomly. In fact, they are extremely finicky about where they will attach. Pili are

constantly on the lookout for a specific receptor that they can fit into with "lock and key specificity," said Hultgren. This is one of the main reasons that bacteria latch onto specific tissues. Uropathogenic *E. coli*, for instance, prefers the bladder, urinary tract and kidney because those tissues contain receptor "locks" that fit the *E. coli* pilus "keys."

A far more interesting question for Hultgren, though, is how pili are assembled and displayed on the surface of bacteria. Hultgren and his colleagues, including Françoise Jacob-Dubuisson, Ph.D., Hal Jones, Ph.D., and Karen Dodson, Ph.D., have spent years poking beneath the surface of the

"We think we have
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— Scott Hultgren

bacterial membrane, trying to find the machinery used to assemble and hoist the pili into place. Their studies paid off handsomely, uncovering a virtual erector set of proteins.

Within the bacterium, in an inner compartment just below the membrane, lie all of the materials to make pili. Over the years, Hultgren's group and others have identified all the essential starting materials, catalogued their genes and defined how and when each part of a bacterial pilus is assembled. Rob Striker, a Medical Scientist Training Program student, currently is studying the subunit interaction "link by link."

One of the key figures in *E. coli* pili synthesis is a boomerang-shaped protein called papD. PapD is a member of a family of proteins called chaperones because their job is to supervise and oversee the assembly of pili. Danielle Howdeshell, a graduate student, continues to study how papD's structure relates to its function. "A human chaperone escorts you to the dance and prevents you from getting involved in interactions your mother wouldn't approve of," Hultgren said. Periplasmic chaperones

have the same function, he adds, only their charge is to make sure proteins don't engage in "nonproductive interactions" in the wrong place at the wrong time.

Hultgren's research team learned that each pilus is built of six different protein components called subunits. Jones, a member of the group, found that subunits basically have two choices in life. One path, with the correct guidance and nurturing of papD, leads to proper pilus formation. The other leads to subunit clumping, which could have a toxic effect on the bacterium. PapD's job is to bind and cap the interactive surfaces on the subunits, so they will not clump together.

Amazingly, a single protein, papD, is able to recognize and bind to each of six different subunits. Karen Dodson discovered that after recognition and binding, papD escorts the subunit to its proper site on the outer membrane, where the subunit is handed over to a molecular usher that puts it in a defined position in the assembly. Once these events became clear, Hultgren and his research assistants, Meta J. Kuehn, Ph.D., and Lynn N. Slonim, Ph.D., decided they needed a closer look at how papD is able to recognize each of the six different pieces of the pilus.

PapD, they found, is able to recognize only a small portion of each of the subunits. It homes in on one end of the subunit, the C-terminus portion. With this finding, ideas of drug design poured forth. "If you could create a small molecular weight compound that would sit in the cleft of papD and prevent it from recognizing the subunits," Hultgren said, "in theory you would have a drug that could disrupt bacterial attachment." Hultgren and graduate student Zheng Xu have demonstrated that such disruption is possible, and they continue to work on this project in collaboration with Symbicom.

Perhaps the most interesting result of these studies is that papD is the prototype member of a larger family of chaperones, found in a broad range of bacteria, from *Haemophilus influenza* to *Bordetella pertussis* to *Klebsiella pneumoniae*. Each of these bacteria contains a chaperone that acts exactly like papD. More importantly, these chaperones also look enough like papD that Hultgren speculates a single drug may one day be used to render all of these bacteria bald, and unable to stick to human tissues. "We think we have identified a universal anchoring site that could serve as an important target for a single drug that could knock all of them out."

— Jim Keeley

DiPersio named director of bone marrow division

John F. DiPersio, M.D., Ph.D., has been named the new director of the Department of Medicine's Division of Bone Marrow Transplantation and Stem Cell Biology at the School of Medicine. He joined the faculty as an associate professor of medicine, effective Feb. 1.

DiPersio comes to St. Louis from the University of Rochester, where he



John F. DiPersio

was an assistant professor of medicine and director of the Strong Memorial Hospital bone marrow transplantation center since 1990. Under his leadership, the transplantation center at Strong Memorial increased six-fold and expanded its capabilities of treating lymphoma and leukemia patients to also offer care for breast cancer, multiple myeloma, germ-cell cancers, Hodgkin's disease and ovarian cancer. He also conducted research on pharmaceuticals to enhance transplant patients' immunity and growth factors to speed up recovery of patients' white blood cells after transplantation.

Prior to working at the University of Rochester, DiPersio served on the faculty at the University of California, Los Angeles, as an assistant professor of medicine.

He received his bachelor's degree in biology from Williams College in 1973 and earned his M.D. and Ph.D. in microbiology from the University of Rochester in 1980.

He completed his internship, residency and chief residency at the University of Texas Health Science Center at Dallas in 1984. He then completed his fellowship in hematology/oncology at the University of California, Los Angeles, Medical Center in 1987.

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Washington

WASHINGTON UNIVERSITY IN ST. LOUIS

Washington People

Farm boy becomes leading plastic surgeon

Vernon Leroy Young, M.D., took his first elevator ride when he went for his medical school interview at the University of Kentucky. "I wasn't sure if I should push the up button because I wanted to go up, or the down button because I wanted it to come down and get me," he said.

That elevator ride was the beginning of a career in medicine that would see a farm boy from Kentucky become one of the best known plastic surgeons in the country. While he is primarily known for his work with breast implants, he also has conducted numerous other breast-related research projects and has done extensive work on blindness after eyelid surgery.

Young grew up on a farm in eastern Kentucky where the closest place that had a name was London, 14 miles away, with a population of about 4,000. His interest in science began at a young age. He attended a one-room school down the road from the family farm, later transferring to the bigger, more modern high school.

But facilities were far from state-of-the-art and to satisfy his scientific curiosity, he mixed "rocket fuel" in the yard with his dad's aftershave and soap and built makeshift laboratories with salvaged equipment. He eventually went to college, but even after getting a degree in chemistry from the University of Kentucky in 1966, Young thought he would someday return to the farm. "All I ever really wanted to do was stay in Kentucky and run the farm," he says. However, his father pointed out that the only courses he had taken were chemistry and biology, which were not likely to help him in his farming future.

So Young went to medical school instead. During his first years at the University of Kentucky, he actually lived in the hospital. He was so afraid of flunking out that he slept in the student lounge by day and studied by night. For study breaks he would wander the halls, trying to pick up some practical experience.

Inevitably, he was caught and had to get an apartment. But he continued to visit the emergency room where, if he was lucky, one of the residents would let him sew up a couple of wounds.

One of those nights in the emergency room, Young made the decision to become a surgeon. "A kid came in with abdominal pain, and the surgery resident walked in, looked at the kid and said he needed his appendix taken out. He removed his appendix and the next day, the kid was better. That, I thought, is what I want to do. I want to be the guy who makes up his mind, knows how to take care of the patient and makes the patient better."

The surgery resident let Young help with the procedure. "I was so proud, I wore the scrub suit around for a week," Young recalled.

He chose plastic surgery largely due to the influence of his mentor, Paul Weeks, M.D., who is now head of the Division of Plastic and Reconstructive Surgery at Washington University School of Medicine.

The two met at the University of Kentucky, where after medical school, Young did a general surgery residency. Young followed Weeks to the School of Medicine for his plastic surgery residency.

According to Weeks, Young arrived several weeks before he was due to begin and literally couldn't sit still he was so eager to start work. "All he kept saying is 'Why can't I start NOW?'" Weeks said.

Determined to repay his mentor for his guidance, Young and his classmates took it upon themselves to make Weeks famous. Returning to school after a weekend at the family farm, Young brought with him what was surely the largest pumpkin ever grown. The well-meaning residents called the St. Louis Post-Dispatch with the breaking story of how Dr. Paul Weeks had developed a revolutionary new fertilizer in his laboratory that could produce pumpkins of incredible size. The paper sent a photographer and reporter to get the scoop and were just about to send it to press when Weeks made Young call the Post-Dispatch.

Weeks, who says he saw his whole career flash before his eyes, refers to the incident as "The Great Pumpkin Caper."

Weeks said Young has become a valuable asset to the School of Medicine. "He is a fabulous faculty member, a team player. If you had your druthers, you would select faculty members like Lee Young. He has everything — motivation, drive and loyalty."

Young's greatest strength, said Weeks, is his depth and breadth of surgical experience and knowledge. "He's not

limited to one area, he covers it all. He has also been very instrumental in developing new techniques and the residents love him. He works so hard with them."

Young said his greatest accomplishment is being a good clinical educator for the residents, something he admired and respected in Weeks and has tried to emulate.

Chief resident David Martin, M.D., said Young has definitely been successful and that above all, he teaches students how to be good communicators. "He talks to patients in a way they can understand," said Martin. "He sits down next to them and speaks to them as people. Patients never leave his office feeling rushed."

In the same way, Martin said Young always has time

filled a definite need. "We would get several calls a day from primary care physicians with patients that came in for something else and had questions about implants. So they would call and try to get a curbside consult. We wanted to get it down on paper so they would have the necessary information and could even give copies to their patients if they felt it was appropriate," she said. "We received lots of positive feedback."

The information was especially well-received because it came from Young, claims Nemecek. "He is one of the most respected plastic surgeons in the country," she said. "During the breast implant controversy, when he got up and presented research you could have heard a pin drop. Everyone listened because they knew they would get the best, most honest answers to their questions."

Young's straightforward approach is the cornerstone to his philosophy of medicine. "The key is identifying the problem," he said. "I think all too often, we don't solve problems because we don't clearly define the questions."

One possible solution to the breast implant controversy came as a result of a clearly defined problem. Washington University radiologists approached Young and said they were having difficulty reading mammograms of women with implants. The silicone gel blocks the X-rays. What was needed was a radiolucent implant that would not interfere with mammograms.

Young came up with the idea of peanut oil. It would solve the radiologists' problem, was non-toxic and absorbable, and would be aesthetically acceptable.

"It was a logical progression," he said. "The adult breast is mainly fat. Fat is made out of oil. We looked at different oils and vegetable oils have a track record of being used in medicine. So there's your answer."

The concept is awaiting FDA approval to begin clinical trials. Young and several Washington University radiologists filed a patent for the new breast implant technology and LipoMatrix Inc., an independent California company, has been developing models for testing.

Trials already have begun overseas and the idea of a safe and effective alternative in the United States has sparked enough interest to generate a waiting list of hundreds of women.

Young stresses the need for more research into the peanut oil option. If approval is granted for trials in the United States, he understands the recognition and commitment that would accompany it. He also is vigilant about conflict of interest. "Right now, we are perceived as honest, credible investigators. If we approach this correctly, that won't change."

This will be the first breast implant that has gone through a pre-market approval process. Young said he believes he and his colleagues have taken the correct approach, even if the implants don't work. "Everyone else went back after the fact and questioned safety — this is approaching it from the front door," he said. "We're trying to develop a better solution for women and doing something proactive with this company."

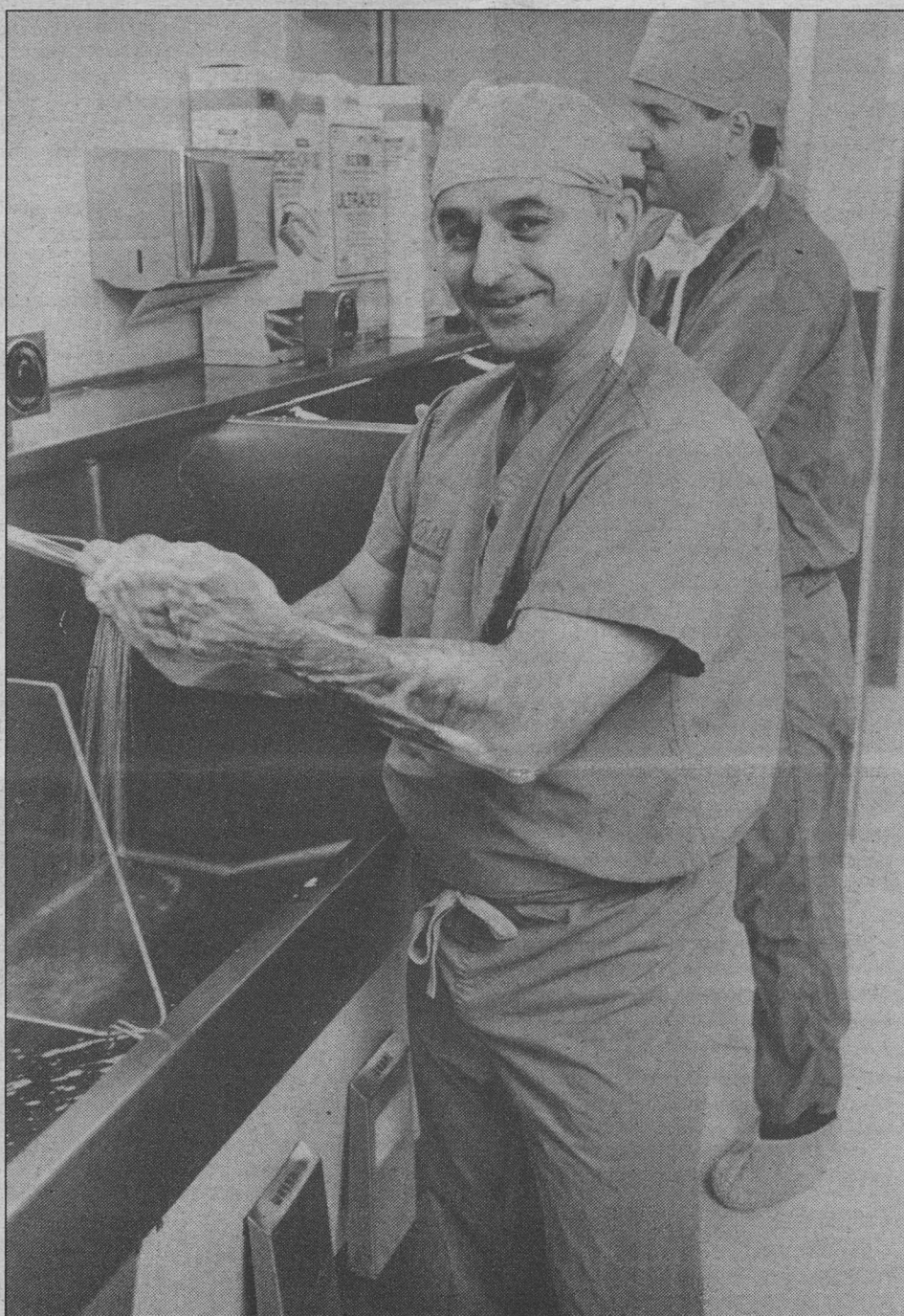
Meanwhile, the silicone implant debate rages. Are the implants safe or are they causing diseases in women, including scleroderma, rheumatoid arthritis, systemic lupus erythematosus and connective tissue disease?

Young often is asked that question and he is in the process of studying immune response to silicone in humans, specifically cellular and humoral immune response using immunohistochemical techniques. This is done using tissue samples from women who have had their implants removed for various reasons.

He also is studying HLA typing in women with silicone implants to determine if there is a link between the implants and rheumatologic diseases or possible autoimmune disorders. Initial data suggest a possible marker (DRw53) of women who are genetically selected to develop a reaction from some component of silicone gel.

Very little research has been done in the area and Young intends to stay at the forefront. The curiosity that prompted him as a boy to mix concoctions on the lawn combined with the logical progression of problem-solving keep him active in research. He sees his future role involving less clinical time and more research with an emphasis on basic science.

— Mary Carollo



Plastic surgeon Vernon Leroy Young, M.D., scrubs before surgery. His chief resident David Martin, M.D., is in the background.

"I was so proud, I wore my scrub suit around for a week."

for residents. "He is very forthright about all topics, and while some surgeons only want to teach their specialties, he is willing to share information or try to help any way he can."

It was that willingness to share information and the desire to help that prompted Young and colleague Jane Riolo Nemecek, M.D., to tackle the issue of breast implant safety.

In a 1993 article for the Southern Medical Journal, they addressed the Food and Drug Administration's (FDA) decision to limit the use of silicone gel breast implants and the surrounding wave of misinformation in the popular press. The article, "How Safe Are Silicone Breast Implants?" was a guide to primary physicians to prepare them to counsel patients who may have been needlessly frightened by inaccuracies.

Young said he is neither for or against silicone breast implants. He has tried to approach the issue scientifically, obtaining facts and conducting research.

Nemecek, a former Washington University surgeon now in private practice in Minnesota, said the article

Calendar

Feb. 10-19



Exhibitions

"The Near Distance: James McGarrell's St. Louis Years" features McGarrell, prof. emeritus of art. Through March 27. Gallery of Art, upper gallery, Steinberg Hall. Hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. 935-5490.



Films

Thursday, Feb. 10

7 and 9 p.m. Filmboard Classic Series. "The Wild Party" (1929, B&W). Room 100 Brown Hall. Cost: \$3. **For 24-hour Filmboard hotline, call 935-5983.**

Friday, Feb. 11

7 and 9:30 p.m. Filmboard Feature Series. "Sleepless in Seattle" (1993). (Also Feb. 12, same times, and Feb. 13 at 7 p.m.) Room 100 Brown Hall. Cost: \$3.

Midnight. Filmboard Midnight Series. "An Affair to Remember" (1957). (Also Feb. 12, same time, and Feb. 13 at 9:30 p.m.) Room 100 Brown Hall. Cost: \$3.

Tuesday, Feb. 15

7 p.m. Japanese Film Series. "Life of Oharu" (1952), with English subtitles. Room 219 South Ridgley Hall. 935-5156.

Wednesday, Feb. 16

7 and 9 p.m. Filmboard Classic Series. "Roman Scandals" (1933, B&W). (Also Feb. 17, same times.) Room 100 Brown Hall. Cost: \$3.

Friday, Feb. 18

7 and 9:30 p.m. Filmboard Feature Series. "El Mariachi" (1993), in Spanish with English subtitles. (Also Feb. 19, same times.) Room 100 Brown Hall. Cost: \$3.

Midnight. Filmboard Midnight Series. "Jailhouse Rock" (1957, B&W). (Also Feb. 19, same time.) Room 100 Brown Hall. Cost: \$3.



Lectures

Thursday, Feb. 10

Noon. Genetics seminar. "Human X Mapping: The Whole Chromosome and Several Disease Genes," David Schlessinger, prof., Dept. of Molecular Microbiology. Room 816 McDonnell Medical Sciences Bldg.

4 p.m. Biology and biomedical sciences student-organized seminar. "Temporal Scale and the Evolution of Thermal Sensitivity in Ectotherms," Ray Huey, prof., Dept. of Zoology, U. of Washington, Seattle. Room 322 Rebstock Hall. 935-6706.

4 p.m. Earth and planetary sciences colloquium. "Non-equilibrium Processes in Stable Isotope Geochemistry," Zachary D. Sharp, senior research scientist, Institut de Mineralogie, Universite de Lausanne, Switzerland. Room 362 McDonnell Hall.

Friday, Feb. 11

Noon. Cell biology and physiology seminar. "Regulation of Nuclear Envelope Assembly *in vitro*: Vesicle Targeting to Chromatin and IP3 Receptor-mediated Ca²⁺ Mobilization During Vesicle Fusion,"

Katherine L. Wilson, Dept. of Cell Biology and Anatomy, Johns Hopkins U. School of Medicine, Baltimore. Room 423 McDonnell Medical Sciences Bldg. 362-6950.

1 p.m. Social work discussion. "Health Care and Welfare Reform: What Are the Future Trends?" Sen. J. B. (Jet) Banks, Missouri Senate Majority Leader and chair, Public Health and Welfare Committee. Brown Hall Lounge. 935-6602.

4 p.m. Anatomy and neurobiology seminar. "Bradykinin Receptors: Warmth, Pain and the Seven Ages of Man," Nancy Baenziger, research assoc., Dept. of Anatomy and Neurobiology. Room 928 McDonnell Medical Sciences Bldg.

Saturday, Feb. 12

9 a.m. Saturday morning neural sciences seminar — Early Events in Neuronal Development. "Cell Cycle Regulation During Development," Shirley Bissen, asst. prof., Dept. of Biology, U. of Missouri, St. Louis. Erlanger Aud., McDonnell Medical Sciences Bldg. 362-0261.

11 a.m. University College Saturday Seminar. "Mixed Drinks: Natural Aquifers and Groundwater Pollution," Everett L. Shock, assoc. prof., Dept. of Earth and Planetary Sciences. Room 362 McDonnell Hall. 935-6788.

Monday, Feb. 14

Noon. Molecular biology and pharmacology seminar. "Anesthetics As Vascular Effectors," Walter A. Boyle III, asst. prof., depts. of Anesthesiology and Molecular Biology and Pharmacology. Room 3907 South Bldg. 362-7047.

Noon. Neurology and neurological surgery research seminar. "Current Construction of Specialized Research Facilities," Theodore J. Cicero, prof., depts. of Anatomy and Neurobiology and Psychiatry. Third Floor Aud., St. Louis Children's Hospital.

4 p.m. Immunology seminar. "Genetically Engineered Antibodies: Improving on Nature," Sherie L. Morrison, prof. and chair, Dept. of Microbiology and Molecular Genetics, U. of California, Los Angeles. Third Floor Aud., St. Louis Children's Hospital.

4 p.m. Psychology colloquium. "Severe Closed Head Injury and an Attention Deficit Hypothesis," Maureen Edgecombe, candidate for a position in psychology, Dept. of Psychiatry, U. of Arizona, Tucson. Room 102 Eads Hall. 935-6567.

6 p.m. Radiology lecture. Eighth Annual Daniel R. Biello Memorial Lecture, "Pulmonary Embolism: Scientific Challenges," Henry D. Royal, prof., Dept. of Radiology. Scarpellino Aud., 510 S. Kingshighway.

Tuesday, Feb. 15

4 p.m. Molecular microbiology seminar. "Membrane Cofactor Protein (MCP/CD46) of the Complement System Is the Measles Virus Receptor," John Atkinson, Adolphus Busch professor and chair, Dept. of Internal Medicine and prof., Dept. of Molecular Microbiology. Room 775 McDonnell Medical Sciences Bldg. 362-2746.

5:05 p.m. Central Institute for the Deaf seminar on progressive sensory loss. "Age-related Macular Degeneration: An Overview," Lucian Del Priore, asst. prof., Dept. of Ophthalmology and Visual Sciences. Second Floor Aud., Central Institute for the Deaf. 652-3200, ext. 671.

Wednesday, Feb. 16

7:30 a.m. Obstetrics and Gynecology Grand Rounds. "Town Hall: The Future of OB-GYN," Sherman P. McCoy, president and adjunct instructor, graduate programs, and John Kissel, medical director and asst. prof., Dept. of Medicine. Medical Staff Conference Hall, Regional Medical Center.

11 a.m. Assembly Series Tyrrell Williams Memorial Lecture. "Thurgood Marshall: Man of Character," James O. Freedman, president, Dartmouth College, Hanover, N.H., and former law clerk to Marshall. Moot Courtroom, Mudd Law Bldg.

12:30 p.m. Neuroscience luncheon seminar. "Regulation of the Tachykinin Neuronal Phenotype," Kevin Roth, asst. prof., depts. of Molecular Biology and Pharmacology and Pathology. Room 928 McDonnell Medical Sciences Bldg.

3:30 p.m. East Asian studies lecture. "Education and Social Change in Korea," Donald Adams, prof. of education and

economic and social development, U. of Pittsburgh. Room 331 Social Science and Business Bldg., U. of Missouri, St. Louis, 8001 Natural Bridge Road. 935-5958.

4 p.m. Biochemistry and molecular biophysics seminar. "Unravelling the Code for Alpha-Helix Termination by Glycine or The Reggie and Raj Show Does St. Louis," Rajeev Aurora and Rajgopal Srinivasan, postdoctoral research fellows. Cori Aud., 4565 McKinley Ave. 362-4112.

4 p.m. Physics colloquium. "How Things Break: The Dynamics of Brittle Fracture," Michael Marder, prof. of physics, U. of Texas, Austin. Room 204 Crow Hall.

5 p.m. Cardiology lecture. "Arrhythmogenic Properties of Non-cardiovascular Drugs," Raymond Woosely, prof. and chair, Dept. of Pharmacology, Georgetown U., Washington, D.C. Room 601A Medical School Library. (Dinner will be served during the seminar.) 454-8586.

Thursday, Feb. 17

Noon. Genetics seminar. "Sequencing the Genome of *C. Elegans*: A Progress Report," Rick Wilson, research asst. prof., Dept. of Genetics. Room 816 McDonnell Medical Sciences Bldg. 362-7072.

Noon. Pediatrics research seminar. "Cellular Determinants of the Fate of Mutant α_1 Antitrypsin in the ER," David H. Perlmuter, prof., depts. of Pediatrics and Cell Biology and Physiology. Third Floor Aud., St. Louis Children's Hospital. 454-6128.

1:30 p.m. Social work lecture. "Issues in Healthcare: The NASW Perspective," Ann Abbott, president, National Association of Social Workers, Washington, D.C. Brown Hall Lounge. 935-4909.

2:30 p.m. Molecular microbiology and microbial pathogenesis program thesis defense. "Characterization of a Hemagglutinin Expressed by an Avian Pathogenic *E. Coli*," David Provence, graduate student, Division of Biology and Biomedical Sciences. Room 322 Rebstock Hall.

4 p.m. Earth and planetary sciences colloquium. "Nitrogen Isotope Variations in Tree Rings and Applications to Studies of Forested Ecosystems," Simon R. Poulson, postdoctoral research assoc., U. of Wyoming, Laramie. Room 362 McDonnell Hall.

4 p.m. Biology and biomedical sciences student-organized seminar. "Testing the Adaptive Significance of Phytochrome-Mediated Responses to Vegetation Shade," Annie Schmitt, Brown U., Providence, R.I. Room 322 Rebstock Hall. 935-6815.

4 p.m. Chemistry seminar. "Structural Transformations in Semiconductor Nanocrystals," Paul A. Alivisatos, prof. of

chemistry, U. of California, Berkeley. Room 311 McMillen Lab. 935-6530.

Friday, Feb. 18

Noon. Cell biology and physiology seminar. "Working in the Mouth of the K Channel: From Gene Extraction to Molecular Dentistry," Rolf H. Joho, U. of Texas, Southwestern Medical Center, Dallas. Room 423 McDonnell Medical Sciences Bldg. 362-6944.

12:30 p.m. Microbial pathogenesis seminar. "Poliovirus Receptor Interactions," Vincent Racaniello, prof., Dept. of Microbiology, College of Physicians and Surgeons, Columbia U., New York. Room 775 McDonnell Medical Sciences Bldg. 362-2746.

4 p.m. Anatomy and neurobiology seminar. "Are Microtubules Transported During Nerve Outgrowth," Paul C. Bridgman, assoc. prof., Dept. of Anatomy and Neurobiology. Room 928 McDonnell Medical Sciences Bldg. 362-7043

4 p.m. Music lecture. "Friends and Relations: Approaches to the Total Chromatic," Andrew Mead, assoc. prof. of music theory, U. of Michigan School of Music, Ann Arbor. Room 8 Blewett Hall. 935-5581.

Saturday, Feb. 19

9 a.m. Saturday morning neural sciences seminar — Early Events in Neuronal Development. "Candidate Genes and Candidate Experimental Approaches in the Analysis of CNS Development," David I. Gottlieb, prof., Dept. of Anatomy and Neurobiology and assoc., prof., Dept. of Biochemistry and Molecular Biophysics. Erlanger Aud., McDonnell Medical Sciences Bldg. 362-0261.

11 a.m. University College Saturday Seminar. "Race, Poverty and Environmental Justice," Richard Lazarus, prof. of law. Room 362 McDonnell Hall. 935-6788.



Music

Saturday, Feb. 12

8 p.m. Voice recital. Graduate student Keri Lynn Lopatin, a soprano, will sing and Gail Andrews, vocal coach and accompanist, will play the piano. Graham Chapel.

Law lecture focuses on Thurgood Marshall

James O. Freedman, president of Dartmouth College in Hanover, N.H., will give the Tyrrell Williams Memorial Lecture, "Thurgood Marshall: Man of Character," at 11 a.m. Wednesday, Feb. 16, in the Moot Courtroom of the Mudd Law Building.

Freedman served in the early 1960s as law clerk to Judge Thurgood Marshall, then



James O. Freedman

with the 2nd U.S. Circuit Court of Appeals. Marshall went on to become the first black member of the U.S. Supreme Court, on which he served from 1967-1991.

A graduate of Harvard University and Yale Law

School, Freedman joined the University of Pennsylvania law faculty in 1964, where he

earned an international reputation as a legal scholar, writing extensively about administrative law. He is the author of the highly

respected book *Crisis and Legitimacy: The*

Administrative Process and American Government. He was named dean of the University of Pennsylvania Law School in 1979.

In 1982, Freedman became president of the University of Iowa in Iowa City. During

his administration, the university strength-

ened its Writers' Workshop, revitalized its Honors Program, and created a Center for Asian and Pacific Studies, a Center for International and Comparative Studies, and a Center for The Book.

Since assuming the Dartmouth presidency in 1987, Freedman has worked to strengthen the university's academic reputation.

Freedman has taught political science and law courses and held visiting professorships in Cambridge, England, and Salzburg, Austria, and also at the University of North Carolina, the University of Michigan and Georgetown University. He is a member of the bars of New Hampshire, Pennsylvania and Iowa. His professional affiliations include the American Law Institute and the planning committee of the National Center for the U.S. Constitution.

Freedman holds honorary degrees from Cornell College, Dartmouth College, Mount Holyoke College, Southern Methodist University, St. Ambrose University, the University of New Hampshire, the University of Pennsylvania and Vermont Law School.

The lecture is sponsored by the School of Law. The lectureship was established in 1948 by family and friends of Tyrrell Williams, who was on the Washington University law school faculty from 1913 to 1946.

Sunday, Feb. 13

8 p.m. New Music Circle performance. "Electronic Opera" will feature electronic composer Ivan Tcherepnin premiering his prize-winning piece, "Santur Opera analog/Santur Opera digital," a work of musical episodes depicting an imaginary plot. Co-sponsored by New Music Circle and Gallery of Art. Cost: \$10 for the general public; \$6 for senior citizens and students. Steinberg Hall Aud. 285-4470.

Wednesday, Feb. 16

8 p.m. Jazz band concert. Performance, featuring contemporary big band numbers, will be directed by Chris Becker, adjunct faculty member. The Gargoyle, Mallinckrodt Center. 935-5581.

Saturday, Feb. 19

8 p.m. Vocal jazz recital. "Lauren Loves George!" — A tribute to the musical genius of George and Ira Gershwin. Performance features Lauren Wilson, staff member and jazz vocalist, and special guest Jeannie Trevor, a St. Louis jazz vocalist. Graham Chapel. 935-5581.

**Performances****Saturday, Feb. 12**

Noon and 2 p.m. Edison Theatre "ovations! for young people" series presents the Illustrated Theatre in "The Arch: Tales of a Region," a new play about St. Louis' history. (Also Feb. 13, same times.) Cost: \$8. Edison Theatre. 935-6543.

Sunday, Feb. 13

8 p.m. Edison Theatre "OVATIONS!" Series presents The Hilliard Ensemble. The vocal ensemble will perform English music of the 14th and 15th centuries in conjunction with "Hearing the Motet," a conference on vocal music of the Middle Ages and Renaissance. Cost: \$20 for the general public. Discounts are available for senior citizens, students and Friends of Music members. Edison Theatre. 935-6543.

**Miscellany****Thursday, Feb. 10**

1:30-3 p.m. University College Short Course. "Buddhism in Tibet." Continues Thursdays through March 3. The four-session course will focus on the spread of Buddhism into Tibet and its inculturation into the west. Instruction by Robert Goss, lecturer in religious studies. Cost: \$75. For location and to register, call 935-6788.

Saturday, Feb. 12

9 a.m.-noon. University College Career Workshop. "Changing Jobs — Changing Careers." Continues Saturdays through Feb. 26. Workshop helps participants define their career interests, assess skills, research occupational opportunities and develop job-hunting techniques. Instruction by Ellen Krout Levine, coordinator of Career

Calendar guidelines

Events sponsored by the University — its departments, schools, centers, organizations and its recognized student organizations — are published in the Calendar. All events are free and open to the public, unless otherwise noted.

Calendar submissions should state time, date, place, sponsor, title of event, name of speaker(s) and affiliation, and admission cost. Quality promotional photographs with descriptions are welcome. Send items to Judy Ruhland at Box 1070 (or via fax: 935-4259). Submission forms are available by calling 935-4926.

The deadline for all entries is noon Tuesday one week prior to publication. Late entries will not be printed. The Record is printed every Thursday during the school year, except holidays, and monthly during the summer. If you are uncertain about a deadline, holiday schedule, or any other information, please call 935-4926.

Programs. Cost: \$60. Room 30 January Hall. To register, call 935-6788.

9 a.m.-noon. University College Career and Transition Workshop. "Search and Research" presents research strategies essential for college-level paper writing. Instruction by Richard Lake, prof., Dept. of Reading, St. Louis Community College at Florissant Valley. Room 30 January Hall. Cost: \$20. Advanced registration required. To register, call 935-6788.

Sunday, Feb. 13

2 p.m. International Conference on Vocal Music of the Middle Ages and Renaissance. "Hearing the Motet" begins with a free guided tour of St. Louis. Activities continue through Monday, Feb. 14. Speakers include performer Joshua Rifkin, Cambridge, Mass., and internationally known scholars. For registration and cost info., call 935-6701.

Monday, Feb. 14

2 p.m. University College Short Course. "A Head Start on the '94 Opera Theatre Season," Sue Taylor, lecturer in music. Continues Mondays through March 7. Course examines the four operas to be performed during the 1994 spring season of Opera Theatre of St. Louis. Cost: \$75 for the general public; \$65 for Friends of Music members. 935-6788.

7-10 p.m. Reading and discussion. "We Are Salman Rushdie" is the observation of the fifth anniversary of the *fatwa*, the death sentence pronounced against writer Salman Rushdie by Iran's government. Presented by the International Writers Center and Left Bank Books. Left Bank Books, 399 N. Euclid Ave. 935-5576.

Tuesday, Feb. 15

8 p.m. Poetry reading. Features Alan Shapiro, poet and author of *Covenant*. Hurst Lounge, Room 201 Duncker Hall. 935-5190.

Wednesday, Feb. 16

1:30 p.m. Action Forum on Computing Support meeting. Meeting to discuss computing and networking help available to members of the WU community. To submit an issue for discussion, contact Kathy Atnip, meeting chair, Academic Computing and Networking, Campus Box 1048, or send electronic mail to kathy@wugate. Room 118 Brown Hall. 935-7519.

Saturday, Feb. 19

9 a.m.-noon. University College Skill Development Workshop. "The Craft of Writing: Grammar and Usage," Tatnall Warner, St. Louis Post-Dispatch news editor. Seminar will review basic rules of grammar, word forms and punctuation. Cost: \$25. Room 115 Cupples I Hall. 935-6788.

9:30 a.m. International Student Resource Group Tour. Bus leaves Stix International House at 9:30 p.m. for the Fox Theatre tour. 935-4787.

2-5 p.m. Edison Theatre and Dance St. Louis audition. Twenty male and female athletes are needed to audition for David Dorfman's "Out of Season," the athlete's project to be performed with Dorfman Company on April 22 to 24 at Edison Theatre. Sweatpants and sneakers or other loose-fitting clothes are recommended. Auditions will be held at the Women's Bldg. dance studio and registration begins at 1:30 p.m. 935-6518.

Choreographer seeks athletes for auditions

Calling all athletes! David Dorfman, a nationally acclaimed athlete, dancer and choreographer, is auditioning athletes for a performance at Edison Theatre. Dorfman is seeking 20 people, male or female, of any age who have athletic experience, either professional or non-professional. No formal dance training is required.

Auditions are from 2 to 5 p.m. Feb. 19 in the Women's Building dance studio. Registration is from 1:30 to 2 p.m. Sweatpants and sneakers or other loose-fitting clothes are recommended.

Those selected must be able to attend three-hour evening rehearsals, which will be held weekdays from April 4 to 21.

Dorfman is looking for athletes for his dance project titled "Out of Season" to be performed April 22 to 24. "Out of Season" is a commissioned work in which Dorfman, a Washington University alumnus and New York-based dancer and choreographer, incorporates movement from many different sports. The work was featured in the Nov. 1 issue of *Sports Illustrated*.

To sign up for the audition, call 935-6518.

Maurice Sendak's classic children's tale gives secret for surviving boredom

"Really Rosie," author Maurice Sendak's story of a plucky 10-year-old girl with a grand imagination, will come to life at 8 p.m. Feb. 25 and 26 and at 2 p.m. Feb. 26 and 27 in Edison Theatre.

"Really Rosie" is part of Edison's "OVATIONS!" series. The one hour and 15 minute show is recommended for ages 6 and up.

"Really Rosie" is produced by The Night Kitchen, Sendak's new children's theatre company. Established in 1990 by Sendak and Arthur Yorinks, The Night Kitchen is committed to creating quality performing arts productions for children and adults. Yorinks also is a nationally renowned author of children's books, including the recent Caldecott Medal winner "Hey, Al." The company plans to commission original work and develop new productions of existing works, including plays, ballets and operas.

In Sendak's classic, Rosie has discovered the secret to survival — a director's chair and an irrepressible imagination. Out of the fabric of everyday life, Rosie creates magic to enchant us, herself and her neighborhood pals: Pierre, Chicken Soup, Johnny and the Alphabet Alligator.

"The great theme for any child is how to survive the next 24 hours," says Sendak. "This means defeating boredom, and handling the overwhelming

questions of death and loss and getting mad, and then going upstairs and having supper."

Since Sendak spoke at Washington University's Assembly Series four years ago, he, Evy Warshawski, managing director of Edison Theatre, and Henry Schvey, Ph.D., chair of the Performing Arts Department, have been working to bring "Really Rosie" to St. Louis. Edison Theatre is the first venue to present this touring production.

"It's as though because they're small, we give them little," Sendak said in an interview in American Theatre about children's theatre. "Everything is reduced in size — even in intellect and emotion. Yet my own instinct has always told me that children are far more complicated than adults. And so, contrary to public opinion — that the work should be simple and reduced for their meager little minds — I think you give them the most complicated works of art, so that you nourish those spirits."

Tickets are \$20 for the general public; \$15 for senior citizens and Washington University faculty and staff; and \$10 for students. Tickets can be purchased at the Edison box office or through Metrotix at 534-1111.

For more information, call 935-6543.

Sports**Men's Basketball**

Last Week: Washington 91, MacMurray 56; Washington 93, Rochester 70

This Week: 7:30 p.m. Wednesday, Feb. 9, at University of Missouri-Kansas City; 8:30 p.m. (EST) Friday, Feb. 11, at Carnegie Mellon, Pittsburgh; 3 p.m. (EST) Sunday, Feb. 13, at Emory University, Atlanta.

Season Record: 13-6 (6-3 UAA)

The Bears assured themselves of a 10th consecutive winning season — a school record — with a pair of convincing victories over MacMurray College (91-56) and the University of Rochester (93-70) last week. Washington University also kept its University Athletic Association (UAA) title hopes alive, upping its league record to 6-3 with the victory over Rochester.

Sophomore center Kevin Folkl, St. Louis, the reigning UAA Player of the Week, is again a candidate for UAA honors after leading the Bears in the two wins last week. Against MacMurray, he had 16 points, seven rebounds, three blocked shots and one steal. Versus Rochester, Folkl paced the Bear attack with 26 points, six rebounds, one assist, one block and two steals. Ranked seventh in the latest NCAA Division III field goal statistics, Folkl upped his nation-leading field goal percentage to .687 by draining 19 of 26 field goals, four of which were dunks. Sophomore forward Brent Dalrymple, St. Louis, contributed 16 points and seven rebounds versus MacMurray, and 13 points and eight rebounds against Rochester.

Women's Basketball

Last Week: Washington 59, Maryville 42; Washington 56, Rochester 54

This Week: 6:30 p.m. (EST) Friday, Feb. 11, at Carnegie Mellon, Pittsburgh; 1 p.m. (EST) Sunday, Feb. 13, at Emory University, Atlanta.

Season Record: 17-3 (8-1 in UAA)

Ranked 13th in Division III by Don Hansen's Basketball Gazette, the Bears survived a pair of scares last week with too-close-for-comfort wins

over Maryville and Rochester. Washington University, which had beaten Maryville by an average margin of 38.4 points in their previous five outings, survived a season-low 31.6 percent shooting performance from the field. The Bears' marksmanship was off again on Sunday. The team managed only a 32.2 percent rate of success against Rochester.

Senior guard Stacy Leeds, Muskogee, Okla., triggered the Bears' two-point win over Rochester by connecting on six of eight attempts from 3-point territory. Leeds, one of the nation's top long-range shooters, scored a game-high 19 points and tied her own school record with 40 3-point field goals in a season. On Thursday, Leeds tied a career-high by collecting nine rebounds against Maryville. Senior guard Sarah Goldman, Nashville, Tenn., tallied a game-high 13 points against the Saints to move into the number-five spot on Washington's career scoring list.

Men and Women's Track and Field

Last Week: at Southern Illinois University (SIU)-Carbondale Saluki Challenge — Women: 8th of 9 teams

This Week: 10:30 a.m. Saturday, Feb. 12, at University of Chicago, Chicago, Ill.

Although the men's team was idle, the women's squad was pitted against a field of scholarship programs that included Purdue, Miami of Ohio and Memphis State at Saturday's SIU-Carbondale Saluki Challenge. Because of the grade of competition, the Bears' eighth-place finish was not an accurate reflection of their performance. Instead, a closer look reveals that the Bears' 1,600-meter relay team shattered the previous Washington University indoor record by a full six seconds. Taking part in the relay were sophomore Julie Pearman, Desloge, Mo.; senior Genevieve Melton, Poughkeepsie, N.Y.; sophomore Anne Reisinger, Apple Valley, Minn.; and sophomore Kristin Cummings, St. Louis. Individually, Pearman came within about a second of tackling another school record by recording a time of 2:25.07 in the 800 meters.



The 16 students in "Intensive Color," a sophomore-level fine arts class, helped brighten the Miriam School recently with a colorful mural. Fine arts Professor William Kohn assigned the project. The 10-by-28-foot image of children on a playground was designed by sophomore Melinda Block. Brod-Dugan donated the paint. (Above) Sophomore Michael Wachs holds the mural design. The Miriam School is for children ages 4-12 with learning and/or behavioral disorders.

Cluster generates new partnerships and spirit of cooperation — from page 1

Just as the other two clusters have done, the ASC is conducting focus group interviews.

"These interviews seek to find out faculty and staff expectations about administrative services and their experience in using those services," said Burckel. "In short, the CFU is using these interviews to find out, from the user's point of view, what works and what does not."

"With this new line of communication opening between the schools and central administration, we're seeing a cooperative spirit emerge," said Pollack. "CFU and school administrative staff are developing a true partnership, working together to meet the needs of faculty and students. When the ASC began, its membership was entirely CFU. The cluster membership has grown with permanent additions from the Hilltop schools."

The ASC began its series of focus group interviews last summer with faculty and staff from the John M. Olin School of Business. Since then, separate groups of faculty and staff from all the Hilltop schools except Arts and Sciences have been interviewed on a school-by-school basis to determine what the members of these groups need to facilitate teaching and research. The cluster begins its next round of interviews this week with 11 focus groups from Arts and Sciences.

Members of every focus group, whether faculty or staff, basically have been asked the same two questions: 1) With regard to administrative support, what satisfies you and what does not? and 2) What suggestions do you have for improvements in administrative support?

The participants are encouraged to answer freely and are promised anonymity with their comments, say Burckel and Pollack. The focus group sessions run anywhere from 90 minutes to three hours and include between six and 10 participants. The number of focus groups range from two to 11 per school, depending on the size of a school's faculty and staff.

After all the focus groups have been conducted in a school, the feedback is compiled into two reports — one outlining what the cluster has learned from the faculty, the other from the staff. These reports are given only to the school deans, focus group participants and cluster members.

"While the original charge of this cluster was to gather information, identify key findings, and make recommendations for systemic changes affecting the University at large, we've now found that the cluster members have become responsive to specific issues in their schools and CFU areas," said Pollack. "We're hearing about improvements in the way services are delivered throughout campus. Not only are our own cluster members making changes in their CFU areas based on what they've heard from the focus groups, but also the

schools that have received our reports are starting to act on them."

An example is the quick response the dean of the School of Engineering and Applied Science took to reports from his staff's focus groups. "One immediate outcome of the Administrative Services Cluster has been a recognition that staff morale within the School of Engineering and Applied Science, which has been involved in some significant restructuring, could be greatly improved with better communication of who we are, what we aspire to be, and where we are today," said Dean Christopher I. Byrnes, Ph.D.

Consequently, the school has started a new tradition: staff assemblies twice a year.

The first one was held in November. The dean gave a state of the school address, explaining the administrative and academic organization of the school and sharing all financial information concerning expenditures and revenues, including the roles played by tuition income, overhead, gifts and endowment.

"We believe that an informed staff can best analyze the kinds of improvements or changes at the school level that the Administrative Services Cluster aims to identify at the university level," explained Byrnes.

CFU departments also are finding that some problems can be addressed and services improved by taking simple action. Cluster members David Benson and Timothy Bergeron, both in Academic Computing and Networking, are demonstrating that with the introduction this week of brown-bag lunches for faculty with computer concerns.

"After reading the focus group reports, we realized that not all faculty know where to turn with computing problems or questions," said Bergeron, academic technology developer.

Another example of a central administration area taking the focus group information and acting on it is Accounting Services. Bill Witbrodt, assistant controller and a cluster member, has initiated advocacy teams comprising staff who use accounting systems in their schools and CFU areas and employees in the various Accounting Services divisions.

"The findings indicate that most concerns with Accounting Services are the result of poor communication," Witbrodt said. "We have not established close relationships with our partners in the schools — we're just voices on the telephone. Our goal is to be more than that. We want to understand and appreciate our users' concerns so that we can work in partnership to better serve our students, faculty and each other."

"The idea is for these two different groups to meet on a regular basis to establish relationships with one another, improve communication, discuss common problems, propose and implement solutions, eliminate redundancy and have fun," he added.

Witbrodt has been meeting with business managers at the schools and in some CFU departments to set these teams up.

The Facilities Planning and Management employees are doing everything necessary to enhance the education and research mission of the University, said Director Ralph H. Thaman.

"The focus group reports have given us a great opportunity to respond to the needs of the different schools," he said. "We have met with deans and department heads to discuss specific problems and future plans. Theoretically, we should know the problems that need attention through our customer service representatives, zone maintenance managers and the network of building liaisons. However, there are issues that fall through the cracks and the focus groups have helped to bring them to the surface. We want to know what the problems are so they can be addressed."

Burckel and Pollack point out that other issues may require University-wide changes to improve services or reduce costs. "We also will need to make sure that we have

Faculty from four different disciplines discuss environment

Washington University faculty will discuss contemporary environmental studies from four very different perspectives in a seminar series beginning Feb. 12. The 1994 University Saturday Seminar Series will explore the subject "Living With the Environment: A Long Engagement."

The lecture series, which will be held from 11 a.m. to 12:30 p.m. on Saturdays through March 5, is free and open to the public. Its purpose is to explore a common theme from different angles and invite dialogue between audience and speaker. The series was planned by administrators at University College.

Everett L. Shock, Ph.D., associate professor of earth and planetary sciences, will kick off the series with "Mixed Drinks: Natural Aquifers and Groundwater Pollution" on Feb. 12. Richard Lazarus, J.D., professor of law, will discuss "Race, Poverty and Environmental Justice" on Feb. 19. Barbara A. Schaal, Ph.D., professor and chair of biology, will address the topic of "The Endangered Species Act: A Biological Perspective" on Feb. 26. On March 5, Robert W. Sussman, Ph.D., professor of anthropology, will present "Satellite Imagery, Anthropology, and Conservation Policy: A Madagascar Example."

Lectures will be held in Room 362 of McDonnell Hall. No registration is required. For more information, call 935-6788.

identified the major issues common to most schools before recommending systemic changes," said Burckel, adding that those types of changes won't happen overnight.

Once all the focus group interviews are completed and the final reports written, the cluster will review the material looking for key findings and present those along with recommendations to the University Management Team. Plans are to present this information before the end of the academic year.

"The process has generated enthusiastic support among cluster members and raised expectations across the campus," said Burckel. "That should assure that our recommendations become realities, not simply remain a report."

"What this cluster is doing is a wonderful beginning," said Provost Edward S. Macias, Ph.D. "It's essential that we take a critical look at how we deliver services and then find ways to make improvements. And then, what's just as essential is that we go back to the people we serve to find out whether we've actually met their needs. Sooner or later we'll get it right." — Susan Killenberg

Center teaches faculty new strategies — from page 1

education," he said. "That we get experienced tenured professors as well as new teachers is delightful. A good percentage of the faculty doesn't need the help but I would bet that everyone would benefit from it."

James Davis, Ph.D., professor of political science, said he uses the skills he learned at the Teaching Center in the classroom, and in everyday life.

"The teaching platform is a stage," said Davis, who has taught for 25 years. "I think about non-verbal communication, eye contact, pace, repetition. Even my wife said she noticed that I now look more at the people I talk to. I used to fill in pauses with 'uhs,' which is a distracting habit. Now I just let there be silence while I collect my thoughts."

In addition to performance suggestions, McDowell and Kuhns help faculty with teaching strategies. For example, most faculty use the beginning and middle of a lecture to build up to the most important point, which usually is presented at the end of class. But, McDowell said, studies have shown that most students' concentration — and notes — trail off after the first 12 to 15 minutes. Professors are advised to introduce the key points at the beginning of a lecture and present supporting information throughout the rest of the class.

At the Teaching Center, faculty also learn about a "low-cost, low-technology" teaching tool. At the end of a lecture, professors should ask their students to answer two questions in "one-minute" written essays: 1) Do they have any questions; and 2) What was the key point of the lecture?

"Professors read the essays before the next lecture," McDowell said. "Many times they'll learn that the students missed the point entirely. Students see an immediate response to their questions at the next lecture. The professors are happier and the students are happier."

Participation in the Teaching Center is confidential. McDowell avoids having two professors from the same school participating in the same workshop. Department chairs and deans are not notified that a professor in their department is using the program and videotapes are not shared outside the center.

Already, the Teaching Center has many success stories, McDowell said.

"We had one professor who thought his accent was a problem. We worked with him and the difference was night and day. People who saw his second videotape almost applauded."

"Another professor came to us. His videotape first showed him standing at the podium, completely static. When he moved to show his slides, it was like a flower opening; he lit up. The students sat up and took notice," McDowell said. "The difference was not lost on the professor."

Davis said the Teaching Center can help all faculty members, no matter how long they have been in front of the classroom.

"I don't believe that you can't teach an old dog new tricks," he said. "Not many people are perfect public speakers. In the end, only the students can tell you if you improved but I really think it benefited me."

— Susannah Webb

Introducing new faculty members

The Record is running a series profiling new faculty on the Hilltop and Medical campuses.

Philip Bayly, Ph.D., assistant professor of mechanical engineering, comes from Duke University in Durham, N.C., where he was a research assistant professor in the Department of Mechanical Engineering. His research interests include nonlinear dynamics, vibrations, chaos and their applications to machines and biomedical devices. He received a bachelor's degree in engineering science from Dartmouth College in Hanover, N.H., in 1986, a master's degree in engineering from Brown University in Providence, R.I., in 1987, and a doctorate in mechanical engineering from Duke in 1993.

Keith L. Butler, Ph.D., assistant professor of philosophy, comes from The College of William and Mary in Williamsburg, Va., where he also was an assistant professor of philosophy. His research areas include philosophy of the mind and cognitive science. He received a bachelor's and a master's degree as well as a doctorate, all in philosophy, from the University of Wisconsin in Madison in 1984, 1987 and 1991, respectively.

Andy Clark, Ph.D., professor of philosophy and director of the Philosophy-Neuroscience-Psychology program, comes from the University of Sussex, in Brighton, United Kingdom, where he was a reader in philosophy with cognitive sciences. Among his research interests are the philosophy of cognitive science and of mind and language, and connectionism. He received a bachelor's degree in philosophy in 1980 and a doctorate in philosophy in 1985, both from the University of Stirling in Scotland.

Sukko Kim, Ph.D., assistant professor of economics, comes from the University of California, Los Angeles, where he received a doctorate in economics in 1993. His research interests are American economic history and international trade. He received a bachelor's degree in economics from Pomona College in Claremont, Calif., in 1983.

Peter E. Shile, M.D., assistant professor of radiology at the School of Medicine's Mallinckrodt Institute of Radiology, previously worked at the University of Pennsylvania in Philadelphia, where he was a postdoctoral fellow in breast imaging and a research fellow in medical informatics. His research interests focus on computer applications in medical imaging. He received a bachelor's degree in engineering from Brown University in Providence, R.I., in 1977 and a medical degree from the Yale University School of Medicine in 1985. He completed a medical internship at the Baylor University Medical Center in Dallas, then started residency training in radiology at the University of Texas Southwestern Medical Center in the same city.

George Varghese, Ph.D., associate professor of computer science, comes from the Digital Equipment Corp. in Littleton, Mass., where he was a principal engineer. His research interests include self-stabilization, which allows computer networks to recover from arbitrary faults. He received a bachelor's degree in electrical engineering in 1981 from the Indian Institute of Technology in Bombay, a master's degree in computer science in 1983 from North Carolina State University in Raleigh, and a doctorate in computer science in 1993 from the Massachusetts Institute of Technology in Cambridge.

For The Record

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

Of note

Three faculty members at the School of Medicine's Mallinckrodt Institute of Radiology have been named fellows of the American College of Radiology. Recognized for their contributions in the field were **Venkata R. Devineni**, M.D., associate professor of radiology at the Radiation Oncology Center; **Joseph R. Simpson**, Ph.D., M.D., associate professor of radiology at the center; and **Michael W. Vannier**, M.D., professor of radiology and director of the Division of Radiology Research. **Ronald G. Evens**, M.D., director of the institute, was renamed secretary-treasurer of the college's board of chancellors. He was first elected secretary-treasurer in 1991. ...

Sarjit S. Gill, M.D., a second-year resident in otolaryngology, received a \$15,000 grant from the Deafness Research Foundation for a project titled "Quantification of Differences in Endolymphatic Calcium Homeostasis Between Albino and Pigmented Guinea Pigs." ...

Stephanie Jonson, a doctoral student in chemistry, received the American Chemical Society's 1993 Charles D. Coryell Award in Nuclear Chemistry. The award carries a \$500 prize and a certificate. ...

Rob McFarland, chemistry librarian, was awarded a \$15,000 grant from the Camille and Henry Dreyfus Foundation to assist in the chemistry library's efforts to develop a prototype electronic library. Funds will be used to assess the costs associated with campus-wide distribution of chemical information resources, including bibliographic data bases and scientific journals. ...

Jean S. Moog, principal of the Central Institute for the Deaf (CID) School and associate professor of education in the Department of Speech and Hearing at CID, delivered the seventh annual Paul O. Hagemann Lecture at St. Luke's Hospital's Institute for Health Education in St. Louis. Her speech was titled "Cochlear Implants: New Technology Helps Deaf Children Learn to Talk." ...

John A. Stern, Ph.D., professor and chair of psychology, received the Award for Distinguished Scientific Contribution to Psychophysiology from the Society for Psychophysiological Research. He was presented the award during the society's annual meeting held in Rottach-Egern, Germany. ...

Guido Weiss, Ph.D., Elinor Anheuser Professor of Mathematics, received an honorary doctorate from the University of Milano in Milan, Italy. In June he will receive an honorary doctorate from the University of Barcelona in Spain.

Speaking of

Nicole Barenbaum, Ph.D., a postdoctoral fellow in psychology, presented a paper on "Challenging Gender in the Classroom" at the Associated Colleges of the South's Conference on Women's and Gender Studies held in Greenville, S.C. Her talk was part of a session on "Women and Education: Current Issues." ...

Several faculty members in the Department of Speech and Hearing at the Central Institute for the Deaf (CID) presented talks during the Alexander Graham Bell Association for the Deaf's conference held in Denver. **Lisa S. Davidson**, lecturer in audiology and a school audiologist at CID, spoke on "Auditory Training Adaptations for Children With Cochlear Implants." **Christine H. Gustus**, lecturer in education and a coordinating teacher at CID, presented "Speech Production for Children With Cochlear Implants." **Victoria J. Kozak**, assistant professor of education and Parent-Infant Program coordinator, delivered a talk titled "A Parent-Infant Program Providing Assessment to Determine Appropriate Education." ...

William H. Gass, Ph.D., David May Distinguished University Professor in the Humanities and director of the International Writers Center, presented a paper titled "Tribalism, Identity and Ideology" at the

Modern Language Association's annual meeting held in Toronto. The paper was presented at a forum on writer Salman Rushdie, who has been sentenced to death by Iran's government for his book *The Satanic Verses*. ...

At the American Society for Therapeutic Radiology and Oncology's meeting held in New Orleans, **Carlos A. Perez**, M.D., professor of radiology at the School of Medicine's Mallinckrodt Institute of Radiology and director of the Radiation Oncology Center, delivered a talk titled "A Fully Integrated CT-simulator: Conceptual Design and Clinical Applications."

On assignment

Ramaswamy Chandrashekar, Ph.D., research instructor in medicine and instructor in molecular microbiology, visited three biotechnology companies in India on behalf of the World Health Organization's (WHO) Tropical Disease Research Program. He served as WHO's special adviser to transfer technology from lab research to product development. In addition he presented an invited lecture on "Molecular Approaches to Immunodiagnosis of Onchocerciasis" at the Indian Council of Medical Research's Tuberculosis Research Center in Madras, India.

To press

Paul M. Allen, Ph.D., associate professor of pathology, and **David Hagerty**, M.D., assistant professor of medicine, wrote an abstract titled "Costimulator Expression Limits Proximal Tubule Antigen Presenta-

tion" that was published in the Journal of the American Society of Nephrology. Hagerty presented the abstract during the society's meeting held in Boston. Hagerty also received a two-year independent research grant for \$160,000 from Monsanto-Searle for a project titled "Glomerular Diseases and Interstitial Nephritis." ...

Harry L. S. Knopf, M.D., associate professor of clinical ophthalmology and visual sciences, wrote a book chapter titled "Refractive Distractions From Drugs and Diseases" which was featured in the book *Office Management of Refractive Error*. The book was published in a recent issue of the Ophthalmology Clinics of North America journal.

Etc.

"Meet Me in Kuwait," an exhibit of nine intaglio prints by **Douglas Dowd**, assistant professor of fine arts, is on display at Grinnell College in Iowa through Feb. 22. During a gallery talk, Dowd discussed the exhibit and the artist's role as political commentator.

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.

Jane Loevinger receives national award

Jane Loevinger, Ph.D., William R. Stuckenberg Professor Emerita of Human Values and Moral Development, has been awarded the Educational Testing Service (ETS) Award for Distinguished Service to Measurement. The annual award, which was established in 1970, is presented to an individual whose work and career has had a major impact on educational and psychological measurement.

The ETS recognized Loevinger "for responsibly questioning traditional psychometric practice; articulating basic principles of personality measurement; conceptualizing and measuring ego development as a master organizing trait; and construing objective tests as instruments of psychological theory."

Loevinger recently was honored at a ceremony held in the Women's Building, where she received a framed calligraphy copy of the citation and a \$5,000 award.

"In addition to its immediate implications for test construction, Dr. Loevinger's



Jane Loevinger

seminal work has had profound theoretical impact," said Nancy Cole, ETS president, who presented the award to Loevinger. "On behalf of all my colleagues at ETS and in the measurement

profession, I want to extend our heartiest congratulations and deep appreciation to Dr. Loevinger for her distinguished contributions to our field." In honor of her contributions to the field of personality measurement, Loevinger received the Bruno Klopfer Award from the Society for Personality Assessment last year.

Psychological Service Center offers group therapy

The Psychological Service Center at Washington University is offering several group therapy programs.

The center is offering psychoeducational groups for female adult survivors of childhood sexual abuse (CSA) and for women who binge, are obsessed with eating or compulsively overeat. The center also is offering cognitive behavioral groups for people suffering from depression.

Information will be provided during each session of the CSA group. Members will be encouraged to participate in discussions.

The group will meet from 6 to 7:45 p.m. every Thursday for four months, beginning in March. The group is limited to eight members. Prior to the first meeting, brief individual consultations will be held to determine if the treatment is appropriate for the prospective participants. The initial consultation is free. For those who join the group, the cost will be \$40 per month, payable each month in advance.

The eating disorders group is for women age 22 and older. The group, which is limited to eight members, will meet from 6 to 7:30 p.m. every Wednesday for seven weeks. The program will begin when everyone has registered. The cost will be \$10 per session, payable in

two installments of \$40 at the first session and \$30 at the fifth meeting.

The Psychological Service Center will sponsor separate groups for men and women ages 24-55 who are suffering from depression. The weekly groups will meet for 12 weeks beginning in March. The women's group will meet from 6:30 to 8:30 p.m. on Mondays and the men's group will meet at the same time on Tuesdays.

Both groups will be limited to 10 members and will be closed once the sessions begin. Prior to the first meeting, individual phone consultations will be held to determine if the treatment is suitable for the callers. The cost is \$10 per session, payable each month in advance.

For more information on any of the groups, call 935-6555.

Obituary

Ralph B. Woolf, M.D., a former professor of obstetrics and gynecology, died of cancer Feb. 2 at Jewish Hospital. He was 79. He began his Washington University career in 1941 as an assistant in obstetrics and gynecology. He left the University in 1972.

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. Note: All positions require three letters of recommendation.

Programmer/Analyst III

940107. *Computing and Communications.* Requirements: Bachelor's degree; good language and people skills; ability to work with minimal supervision; ability to learn quickly and adapt to new circumstances; experience with use and management of desktop computers; knowledge of desktop data base technology in a client/server environment highly desired; familiarity with DOS, Macintosh systems; knowledge of Novell, Appletalk, Windows and TCP/IP networking highly desired. Resume required.

Programmer Analyst II

940108. *Computing and Communications.* Requirements: Bachelor's degree; good language and people skills; ability to work with minimal supervision; ability to learn quickly and adapt to new circumstances; experience with use and management of desktop computers; knowledge of desktop data base technology in a client/server environment highly desired; familiarity with DOS, Macintosh systems; knowledge of Novell, Appletalk, Windows and TCP/IP networking highly desired. Resume required.

Accounting Clerk

940145. *Biology.* Requirements: High school graduate; basic understanding of accounting and budgeting; strong book-keeping, clerical and verbal skills; demonstrated abilities in developing and using Excel spreadsheets on a Macintosh computer, and in inputting and using other financial systems; knowledge of FIS and grants budgeting strongly preferred; ability to handle simultaneous, multitask assignments, work under deadline pressures and effectively support and interact with a diverse group; must demonstrate sound independent judgment, initiative and the ability to work with minimal supervision; strong organizational skills; typing 35 wpm with accuracy. Clerical tests required.

Technical Service Specialist

940146. *Campus Stores.* Requirements: High school graduate; capable of providing technical support and sales consultation for computer hardware, software and peripheral sales to University departments; capable of installing systems and software, maintaining and servicing equipment, inventory control of service areas and sales; able to support a broad array of equipment. Resume required.

Library Services Assistant, Part-time

940148. *Law Library.* Requirements: Some college, bachelor's degree preferred; typing 40 wpm with accuracy; library technical service experience; law library technical experience preferred; library updating experience (loose leafs, pocket parts, etc.); experience with computers; attentiveness to detail. Clerical tests required.

SIS Systems Assistant

940154. *University Registrar.* Requirements: Some college, bachelor's degree preferred; understand and maintain system files within the student information data base pertaining to classes, titles, registration and grade processing operations. Clerical tests required.

Administrative Assistant

940156. *Music.* Requirements: In-depth knowledge of University's accounting policies and procedures; four-year college degree with emphasis in accounting or equivalent work experience; typing 30 wpm with accuracy. Clerical tests required.

Secretary/Receptionist, Part-time

940157. *Computer and Communication Research Center.* Requirements: Some college; typing 50 wpm with accuracy. Duties: Maintain calendars, schedules and files; make travel arrangements; type routine correspondence, classwork; assist in fiscal activities of center; assist in annual report preparation; assist in coordination of research progress reviews; coordinate center technical report distribution; coordinate mailings of networking and communications program; assist in departmental accounting procedures; maintain office supplies. Clerical tests required.

Lab Assistant

940158. *Biology.* Requirements: High school graduate; must be hard working and eager to learn; will consider part-time 20 hours per week. Will train in all relevant procedures. Resume required.

Administrative Secretary

940162. *Medical Alumni and Development.* Requirements: Three or more years office experience; some college, bachelor's degree preferred; typing 50 wpm with accuracy; word processing, data processing and overall computer skills; familiarity with Macintosh, Word and Excel preferred; good command of English language; ability to deal with multiple assignments and organize work to meet deadlines; ability to deal cordially, accurately and responsibly with public on the telephone, in the office and at special events; ability to work well with colleagues in promoting a team environment; attentiveness to detail. Clerical tests required.

Computer System Manager/Programmer

940166. *Psychology.* Requirements: Bachelor's degree; good language and communication skills; VMS system management experience; VMS system programming skills in ADA and FORTRAN; IBM-compatible personal computer programming skills in C or C++. Resume 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 resume 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.

Secretary I

940373-R. *Radiology.* Schedule: Part-time, 20 hours per week, flexible, Mondays through Thursdays. Requirements: High school graduate or equivalent; knowledge of medical terminology preferred; perform accurate, precise work; work well with others.

Secretary I

940443-R. *Medical Informatics.* Schedule: Part-time, 20 hours per week. Requirements: High school graduate or equivalent; some advanced secretarial training preferred; one year experience; typing 50 wpm; ability to use word processing equipment.

Secretary II

940486-R. *Neurology.* Requirements: High school graduate or equivalent; three to five years related experience, including grant applications; able to communicate clearly and professionally; typing 60 wpm.

Medical Research Technologist

940520-R. *Anesthesiology.* Requirements: Bachelor's degree in biology, chemistry or related field; two years research lab experi-

ence; ability to plan and perform experiments using cell cultures; interpret results and make appropriate alterations in methodology.

Programmer Analyst I

940528-R. *Psychiatry.* Requirements: Bachelor's degree in math, engineering, computer science, statistics or related field, master's degree a plus; two years programming experience preferred; UNIX skills suitable for systems administration of SUN workstation; ability to write and implement equations for statistical evaluations and to apply probability and numerical selection theory; skills in C programming.

Medical Secretary I

940531-R. *Psychiatry.* Schedule: Part-time, 25 hours per week, days and hours flexible depending on work load. Requirements: High school graduate or equivalent; experience in medical setting and familiarity with grant applications and manuscript typing preferred; typing 65 wpm.

Insurance, Billing and/or Collection Assistant II

940540-R. *Otolaryngology.* Requirements: High school graduate or equivalent with one year related office experience; good interpersonal and organizational skills; familiarity with medical insurance claims, billing and collecting procedures; typing 30 wpm.

Director of Information Systems

940557-R. *Pediatrics.* Requirements: Bachelor's degree in related field; five years computer experience; two years supervisory skills preferred; strong background in computer technology, including — but not limited to — skills in programming, development, networking, hardware, software, systems operations and user support. Will be managing the administration and support, operational, developmental and systems functions of the computing facility.

Senior named to All-USA College Academic First Team — from page 1

that felt by cancer and arthritis patients, erodes the quality of life, impedes recovery from illness, and can even make the difference between recovery and death. Understanding pain sensation in individual cells shall revolutionize the physician's ability to treat clinical pain.

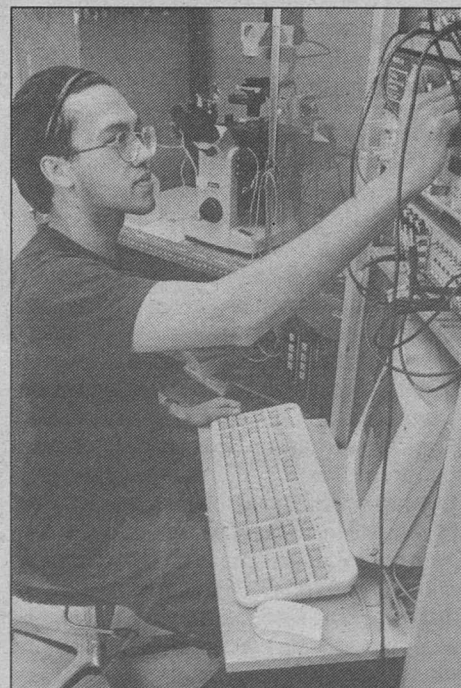
"Biomedical research about things that affect people is one of the most philanthropic things that anyone can do," said Taddese, who delivered a lecture/slide presentation on his work to leading neuroscientists during the Society for Neuroscience's scientific sessions held in Washington, D.C. "To discover something that is going to help people — that's community service. All of the people who study cancer or whatever are conducting effective community service, especially when people decide between that type of career or something that's just going to pay a lot." He has applied to the Washington University M.D./Ph.D. program.

Sharon Stahl, assistant dean of arts and sciences, nominated Taddese for the honor. In addition to McCleskey, Patout Burns, Ph.D., Thomas and Alberta White Professor of Christian Thought and chair of religious studies, and James E. McLeod, dean of the College of Arts and Sciences, wrote letters of recommendation on Taddese's behalf.

"When I first saw the information about team nominations, I thought, that's Abraha," said Stahl. "I had no doubt he would win. He's just extraordinary. He has a charismatic quality. He has an impact on everyone he meets. Yet, he's humble."

McLeod agreed. "We are very proud of Abraha," he said. "This recognition is an affirmation of his extraordinary talents, accomplishments and commitment to service."

After he receives his medical degree and doctorate, Taddese may pursue several career options. He would like to develop a better pain-killing drug, of course, or perhaps work for the World Health Organization to combat diseases such as malaria, which, according to Taddese, is the leading cause of death in humans.



Abraha Taddese

The \$2,500 award will help finance Taddese's plans to travel to Ethiopia this summer to study how the country trains its doctors. He also plans to learn more about his family's history. His father, economist Taddese Woobneh, Ph.D., is from Ethiopia.

The doctor-patient ratio in Ethiopia is one doctor for every 100,000 patients, said Taddese. "It would be great to have some sort of effect upon the education of physi-

cians in Ethiopia because physicians are so necessary," he said, adding that many Ethiopian doctors come to the United States to pursue their careers.

With all his accomplishments, one might get the idea that Taddese, the president of the Washington University Pre-medical Society, is solely focused on a medical career. But he is involved in many activities.

He has served as a program leader for the Campus Y's Healthlines Program. He was a member of the Association of Black Students Programming Committee. He was editor-in-chief of the Pre-medical Society's publication Cadaver. He was awarded a 1993 research grant by the American Physiological Society. He has received the Ralph Bunche Award for African-American Students.

Yet when asked which of his accomplishments he is most proud of, Taddese does not hesitate. Without exception, it was his participation on the Washington University Crew Team.

"Nothing even comes close to how different I had to be to row," said Taddese, a member of the 1991 team that became Midwest champions and also won the gold medal that year during the Southern Invitational Championships. "I was very non-athletic in high school. When I rowed, it was all consuming. The crew team practices at least four hours a day. The physical shape you get in is amazing."

"It gave me an extraordinary, different perspective. It was a complete switch for me in terms of thinking about what was important. I learned it was just as fulfilling as anything I had ever done. It was interesting. I realized doing interesting things was worth looking into."

— Carolyn Sanford