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# Washington University Record, September 8, 2000

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# Record

Sept. 8, 2000

Volume 25 No. 2



## Washington University in St. Louis



**Helping hands** Sophomores Michael Ewens and Megan Madaras (foreground) were among 750 students who turned out for the University's second annual Service First outreach initiative. Ewens and Madaras joined about 250 students working with Operation Brightside to clean up 40 blocks in North St. Louis. Other students helped teachers prepare classrooms in three elementary schools and cleaned and landscaped Interstate 44 embankments for the Garden District Commission.

## Plans for east end of campus unveiled

By BETSY ROGERS

**T**his is not about being bigger, but being better," said James E. McLeod, dean of the College of Arts & Sciences and vice chancellor for students, announcing new plans for the east end of the Hilltop Campus at a public forum for neighbors Aug. 29 in Steinberg Hall Auditorium. "Our undergraduate student body will remain about the same."

McLeod and Steven P. Hoffner, assistant vice chancellor for students and director of operations, unveiled plans for \$200 million in new construction — six new buildings — between now and about 2007, including a new campus for the School of Engineering and Applied Science, the Visual Arts and Design Center (VADC) adjacent to Steinberg Hall and a new building for the Department of Earth and Planetary Sciences in Arts & Sciences.

About 140 attended the meeting and took part in a question-and-answer session after the presentation.

Specifically, the new structures

will be:

- The Uncas A. Whitaker Hall for Biomedical Engineering, slated for construction next year;
- The new earth and planetary sciences building, which will free up space for the biology department in McDonnell Hall;
- The Visual Arts and Design Center and the renovation of the three existing buildings — Givens, Steinberg and Bixby halls — at the southeast corner of the campus, to provide expanded space for programs in art, architecture, art history in Arts & Sciences and the University's prized art collection;
- a new building for electrical engineering and computer science at the corner of Skinker and Millbrook boulevards;
- a new building for engineering administration and support services; and
- a sixth building for mechanical, civil and chemical engineering.

The development will make room in existing engineering buildings for a variety of Arts & Sciences programs, relieving overcrowding in their current quarters.

See **Plans**, page 6

## Park gift strengthens ties to Asia

By BARBARA REA

**S**ome of the most interesting years in alumna Helen Ette Park's life were spent in Asia. It's not surprising, then, that her bequest to the University provides generous support for her alma mater's Asia initiatives.

Park's gift of more than \$10 million will help the University expand its connections in the international arena in a number of important ways. The funds will support scholarships for Asian students, strengthen the University's existing International and East Asian Studies programs, establish new programs to support interdisciplinary scholarship and research, and award grants to faculty for conferences, research and travel.

"One of Washington University's primary goals is to prepare our students for living and working in an expanding international community," said Chancellor Mark S. Wrighton. "Thanks to the generosity of Helen Ette Park and to her lifelong interest in developing ties with Asian nations, Washington University is developing programs that enhance and expand our students' knowledge of language, literature, culture, economics and politics in Asia. The connections we make will be vital to the University's future success and will strengthen our role as a global leader."

Edward S. Macias, Ph.D., executive vice chancellor and dean of Arts & Sciences, is chair of the University's International Relationships Committee. "Asia is

a major focus, and developing strategic relationships with institutions in Asia will be critical to establishing partnerships with the best students and scholars in those countries," he explained. Macias and the committee have formulated a strategic plan for the Asian initiative, and he has been spearheading many of the proposed projects.

These sweeping initiatives will be felt in all schools and by students and faculty alike for years to come. Park's presence also is felt each day on the South 40, where 138 students live in the Helen Ette Park House. The student residence was dedicated in 1991 to honor her commitment and major contributions here.

Park's long and interesting life See **Legacy**, page 2

## 'Give till it feels good' United Way campaign begins

By CHRISTINE FARMER

**I**t's likely that someone you know has been helped through the United Way. In fact, one in three people in the St. Louis area benefits from the services provided by United Way-funded agencies — through job training, family counseling, daycare services, the YMCA, the American Cancer Society, the American Heart Association or other programs.

Last year the generosity of faculty and staff allowed the

University to surpass its \$400,000 goal, raising more than \$420,000. This year's goal is set at \$425,000, according to Chancellor Mark S. Wrighton, who addressed the campaign kickoff breakfast Aug. 31 at Whittemore House.

"I have come to know the wide range of services the United Way provides for the St. Louis community and here in the University community," Wrighton said. "The support of the 9,500 University employees is key to the success of the 2000 campaign, and I hope we

See **United Way**, page 7

## New chemotherapy approach holds great promise against disease

By BRIAN SCHNALL

**I**magine a day when a cancer patient can have a blood or biopsy sample fed into a DNA diagnostics machine, which takes the disease-state DNA results and within hours comes up with a tailored drug/catalyst therapy. This treatment will kill the cancerous cells in the body and leave the others unharmed — and it is capable of beating the cancer even as it mutates.

John-Stephen Taylor, Ph.D., professor of chemistry in Arts & Sciences, and his research team have taken the first step toward making this happen. They've designed a new approach to chemotherapy that makes direct use of genetic material as a trigger to annihilate cancer or virally infected cells.

This innovative approach

would facilitate the selective destruction of harmful cancer or viral cells, which has always been the less-than-realized purpose of chemotherapy.

"All throughout history, the development of drugs has been based on trying to find a molecule toxic only to the pathogen or organism you want to kill," Taylor observed.

But, he noted, recent advancements in mapping the human genome and developing DNA chips have provided opportunities to determine the exact genetic composition of specific diseases such as cancer.

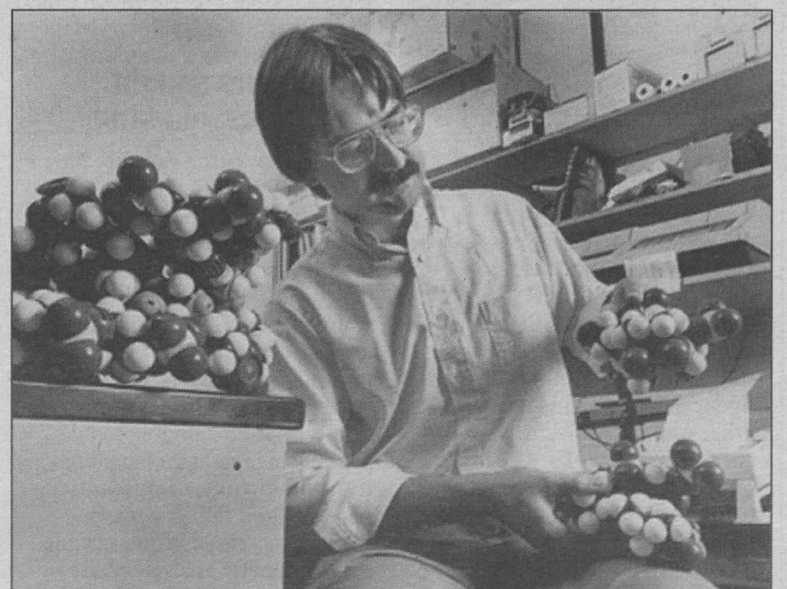
"Once you know the sequence of a nucleic acid such as DNA or RNA, it's very easy to make a molecule that binds specifically to that sequence by making use of Watson/Crick base-pairing rules," he explained. "So the beauty of

nucleic acids is that they present a trivial way of targeting any specific sequence you want."

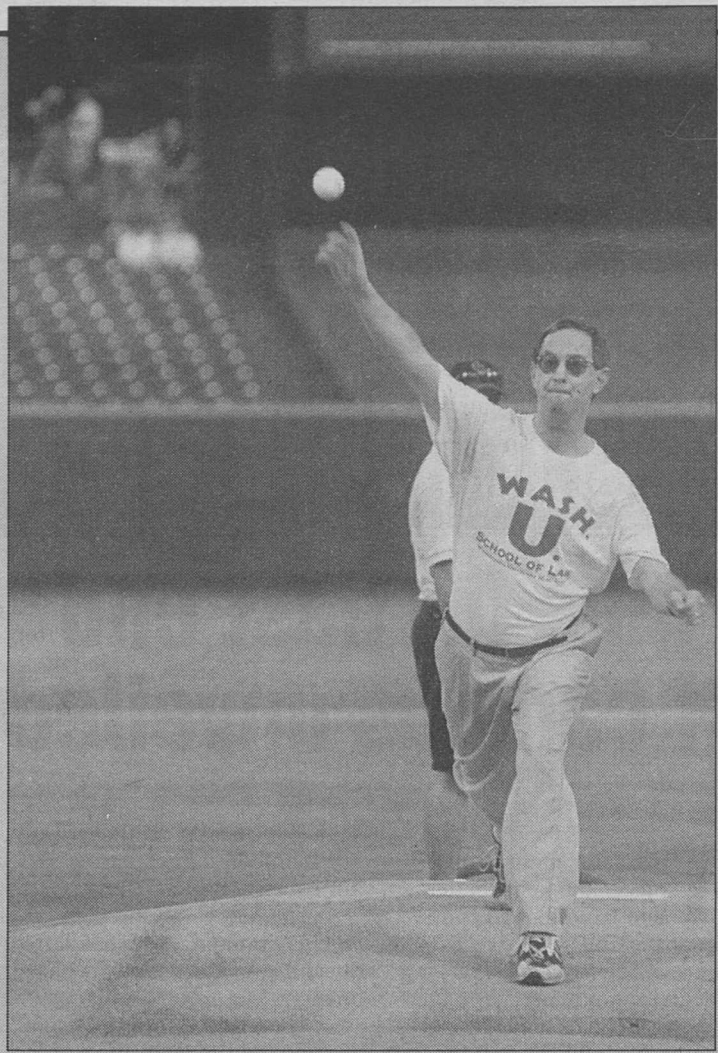
Current experimental approaches are based on binding to and then attacking the disease-specific nucleic acid sequences in an attempt to inactivate cancerous cells by interfering with their genetic codes. But it's difficult to predict the outcome of attacking a particular disease-specific nucleic acid sequence. Also, when attacking the genetic material directly, undesirable collateral damage can arise because sequences other than those targeted can be damaged.

Taylor and his group have developed an entirely different approach to disease-specific chemotherapeutic agents. They came up with a nucleic acid-triggered catalytic drug release

See **DNA**, page 2



Chemistry Professor John-Stephen Taylor, Ph.D., and his research team have developed a promising new DNA-based approach to chemotherapy.



**For openers** Joel Seligman, J.D., dean of the School of Law and the Ethan A. H. Shepley University Professor, throws out an opening pitch at the Cardinals game Sept. 1. The law school sent more than 400 students, faculty, administrators, staff and alumni to cheer on the home team at the school's second annual night at the ballpark.

## DNA

### New chemotherapeutic approach developed

— from page 1

system that they've shown works in an in-vitro model system. Instead of using the disease-specific nucleic acid as a target, the nucleic acid is used as a trigger to cause the release of a cytotoxic agent. The basic idea is to use a disease-specific nucleic acid sequence to bring together a prodrug component — an inactive form of a drug that has no therapeutic value until it is converted into the active form — and a catalytic component capable of releasing the drug from the prodrug.

To make the prodrug component, Zaochun Ma, Ph.D., Taylor's post-doctoral researcher, attached a drug to a synthetic DNA sequence that is specifically designed to recognize one half of

the disease-specific nucleic acid sequence. To make the catalytic component, a catalyst that has the ability to release the drug from the prodrug is attached to synthetic DNA that recognizes the other half of the DNA sequence. When the catalytic and prodrug components are mixed in the presence of the DNA sequence, the drug is released.

"Basically, we are using the nucleic acid unique to the cancerous DNA as a template to bring together the prodrug and the catalyst," Taylor explained. "Instead of using the nucleic acid as a target for the action of a drug, we use nucleic acid as a trigger. It's better to use genetic information as a trigger than as a target."

Ma described the method in a paper delivered at the August annual meeting of the American Chemical Society in Washington, D.C. The paper will be published later this year in the Proceedings of the National Academy of Sciences.

# Up, up and away

## Engineering outreach program puts K-12 experiments in space

By TONY FITZPATRICK

**W**hen Space Shuttle STS 106 is launched from the Kennedy Space Center Friday, Sept. 8, it will be carrying the hopes and experiments of more than 300 St. Louis-area students, ranging in age from kindergarten through 12th grade, courtesy of an outreach program involving Washington University undergraduate students and engineers.

Carefully packaged inside a 60-pound Get-Away-Special (GAS) can will be an array of items, ranging from bubblegum and moldy bread from Glenridge Elementary School in Clayton to a 3.5-inch computer floppy disk from Mary Institute Country Day School, Ladue, to student hair samples and rotting hamburger from Sacred Heart Elementary School, Florissant. In all, 45 different experiments will go aloft in the GAS canister G-782, also known as the Aria-1.

Aria-1 is an educational project allowing K-12 students in the St. Louis area to design, build and fly experiments in space. Undergraduates in the School of Engineering and Applied Science (SEAS), under the supervision of Keith Bennett, affiliate assistant professor of computer science, and Michael Swartwout, Ph.D., assistant professor of mechanical

engineering, designed the GAS can this past year and assembled it at the NASA Wallops Flight Facility in Virginia.

The K-12 students, under the guidance of their teachers, prepared hypotheses, designed experiments, collected the materials and prepared the flight articles, and will analyze the results after flight. All are "fly and compare" experiments — each involves a sample that will fly on-board STS 106 and an identical sample kept on the ground. After flight, students will compare the flight and ground samples to determine effects caused by micro gravity, radiation, temperature changes and other possible conditions experienced in a low earth orbit environment.

The purpose of the Aria-1 is to encourage students in science, engineering and technology by involving them in hands-on space science before they make long-term career decisions. The exact form of student organization and participation has been under local school control. Some schools organized as clubs, others incorporated the effort into their curricula.

The SEAS sponsors Aria-1. The project's engineering and manufacturing is the responsibility of more than 20 undergraduate students from a wide range of departments, under the guidance of Bennett and Swartwout. The project is co-sponsored by the St. Louis Area Cooperating School Districts, which aided in communication with the schools.

"I'm having lots of fun with Project Aria and feeling gratified that the project is getting kids involved and they're having fun," said Bennett, who for 12 years worked in aviation and space research with McDonnell Douglas Corp. "And it's not just the K-12 students. Our undergraduates have been excited by the project, too. They're able to get involved in a real-life project from start to finish,

and they like that."

University students working in Project Aria-1 (there are two more Aria projects in the works) take Engineering 190, a one-hour pass-fail space engineering workshop. While most of the Project Aria undergraduate students are engineering majors, the class is open to all Washington University students.

Bennett began the program in the spring of 1998, with the first undergraduate student involvement starting in the fall of that year.

Jason Minier, a senior mechanical engineering major from Grand Rapids, Mich., and a defensive tackle on the Bears football team, was one of the first students in the project. He and several other undergraduates are traveling to Kennedy Space Center to watch the liftoff.

"This has been just a great experience," Minier said. "It's a chance to put your engineering skills to work in a real project. And that's so much different than explaining things in a paper. I've never seen a shuttle launch in person and can't wait."

A second GAS canister, the Aria-2, will go up on STS 102, scheduled for the spring of 2001. Bennett said he is counting on more schools and 80 experiments for that mission. Aria-2 and Aria-3 are co-sponsored by the Boeing Corp.

The Missouri schools participating in Aria-1 are Bristol Elementary School, Webster Groves; Glenridge Elementary School, Clayton; Ladue Junior High School; Hazlewood West High School; Mary Institute Country Day School, Ladue; Center for Creative Learning, Rockwood School District; and Sacred Heart Elementary School, Florissant.

Marissa Junior/Senior High School, in Marissa, Ill., is also part of the project.

"Only in the presence of the specific sequence unique to the cancer or virus can these two, prodrug and catalyst, be brought together so that the catalyst can snip off the drug," he explained. Without the specific sequence of the cancer or viral cell, neither the drug nor the catalyst can get together. Thus, healthy cells are unharmed.

Taylor said it could take many years to develop a therapy based on his method, but he is optimistic that the method provides another direction, one that could rapidly respond to viral diseases or cancer as fast as they mutate. He said the catalyst/prodrug/DNA trigger system could expand beyond the horizons of anti-viral and anti-cancer therapy to other diseases.

"The beauty of the system is that you could use it for any infectious disease or cancer," Taylor said. "You don't have to go out and search the plant world for new drugs."

## News Briefs



### Try transit!

"Gotta Go to Work" is the theme for this year's Try Transit Week Sept. 11-15, sponsored by Citizens for Modern Transit, the St. Louis Regional Clean Air Partnership, Bi-State Development Agency, the St. Louis Rams and other organizations. Any current transit rider who recruits another person to try transit will receive one free weekly pass, as will the new recruit. The first 4,000 registered current and new riders will receive "Gotta Go to Work" T-shirts. A drawing will

be held for a transit commuter prize package, which includes a year's worth of free transit passes, a weekend getaway and restaurant certificates. For more information, visit the Web ([www.cmt-stl.org/clean/week.html](http://www.cmt-stl.org/clean/week.html)).

### Volunteers sought for depression study

Families are being recruited to participate in a School of Medicine study to determine the genetic and environmental factors associated with unipolar depression. If two or more siblings in your immediate or extended family suffer from unipolar depression recurrent (two or more episodes), your family could be eligible to take part in this research. Participation will include a confidential personal and family history interview, a small blood sample for the genetic analysis phase of the research study, and payment for time and travel. For more information, please call Caroline

E. Drain, research patient coordinator, 454-3618. (See story on page 3.)

### ...and lung screening

People ages 55 to 74 who are or have been heavy smokers could be eligible for lung cancer screening at the School of Medicine. The Lung Screening Study is designed to determine the abilities of spiral CT and chest X-rays to detect lung cancer. Participants will receive either a low-radiation-dose spiral CT scan (computed tomography) or a single-view chest X-ray. They might be asked to fill out a brief questionnaire six months later. There will be no charge for the screening, and results will be shared with participants and their personal physicians. The Lung Screening Study began Sept. 1; all participants will be chosen by Oct. 31. For more information, call toll-free 866-362-5656 and press 5.



Helen Ette Park

## Legacy

### Park bequest supports WU's Asia initiatives

— from page 1

began in St. Louis. After graduating from the University with a

bachelor's degree in 1919, she traveled to the Orient, where she met and married Mungo Park, an English mining engineer.

They settled in Kuala Lumpur, Malaysia, where she experienced adventures rare for a woman of her era. When her husband took up flying, so did she. Helen Park also became known for her ability to grow rare orchids. After leaving Malaysia, the Parks settled in California. Mungo died in 1949; Helen died in 1994 at the age of 98, leaving the bulk of her estate to her alma mater.

"This is an amazing gift to the University, given by a remarkable woman," Wrighton noted. "She will long be remembered at Washington University for her pioneering spirit and her immense generosity."

## Record

Washington University community news

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Washington University in St. Louis

## Medical School Update

# International team looking for genes involved in depression

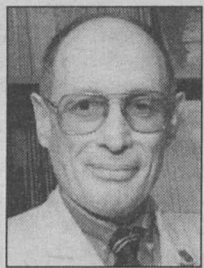
By JIM DRYDEN

Theodore Reich, M.D., the Samuel and Mae S. Ludwig Professor of Psychiatry and professor of genetics at the School of Medicine, will help lead an international team of geneticists in a three-year study attempting to uncover the genetic basis of depression.

Reich is the principal investigator for the St. Louis site of the 10-center study involving researchers in the United States and Europe. Washington University will be the only center in the United States that will recruit study participants.

Researchers hope that the international study, sponsored by British pharmaceutical company Glaxo Wellcome, will provide new insights into genetic and environmental factors associated with unipolar depression.

Also referred to as clinical depression or major depression, unipolar depression causes patients to slip into states of extreme sadness, hopelessness and lethargy. Unlike manic depression (also



Reich: Among leaders of three-year study

known as bipolar disorder), which involves fluctuations between depressed and euphoric states, the more common unipolar depression involves only low mood.

Reich plans to recruit 120 families in which some family members suffer from depression and others do not. He and the other investigators also will take

**"If we can identify genes that make people susceptible, it will revolutionize our understanding of the disease and guide the design of new drugs to prevent or treat this extremely debilitating disorder."**

THEODORE REICH

advantage of new information from the human genome map as they search for genes related to depression. The medical school's Genome Sequencing Center is one of the key facilities involved in the international public effort, now in its final phase, to decipher the 3 billion DNA letters that make up the basic set of inherited instructions for the development and functioning of a human being.

"We will use the genome map as we try to determine why some people in a family develop depres-

sion while others do not," Reich said. "If we can identify genes that make people susceptible, it will revolutionize our understanding of the disease and guide the design of new drugs to prevent or treat this extremely debilitating disorder."

Depression affects up to 12 percent of the Western world, and although about 70 percent of patients respond to treatment, three-fourths will experience a recurrence of their illness within 10 years. In addition, an estimated 60 percent of depressed people

remain undiagnosed and untreated.

The World Health Organization estimates that by the year 2020, depression will be the second leading cause of "lost years of healthy life."

Allen Roses, M.D., worldwide director of genetics at Glaxo Wellcome, believes the time is right to isolate genes that contribute to a disease he calls a huge societal burden.

"There is strong evidence that points to a genetic predisposition to unipolar depression," Roses said. "The information available from the sequencing of the human genome, together with the data we gather from this study, will provide an unprecedented level of understanding, which Glaxo Wellcome can feed into its research and development program to help speed the discovery of new medicines for depression."

## Study suggests best follow-up tests for prostate cancer risk

Doctors should consider the next diagnostic step carefully when the standard blood test for prostate cancer gives ambiguous results, according to the largest study of secondary screening methods.

The study suggests that doctors who assume levels of a circulating protein called prostate specific antigen (PSA) rise naturally with age could delay diagnosing about 40 percent of curable cancers. But following the standard PSA test with a different test for PSA or with ultrasound would detect 95 percent of the cancers, the researchers concluded.

"If a man has a perfectly healthy prostate gland, he should have a normal level of PSA regardless of his age," said William J. Catalona, M.D., lead author of the multi-center study reported in the August issue of *Urology*. Catalona, a professor of urologic surgery at the School of Medicine, notes that up to two-thirds of men over age 70 tested at the medical school have healthy-looking prostate glands and normal PSA values.

The study involved 773 men between 50 and 75 years of age who were seen at seven medical centers. The volunteers' prostates appeared normal during physical exams. However, the Hybritech PSA test revealed between 4.0 nanograms and 10.0 nanograms of PSA per milliliter of blood. About 17 percent of men fall into this PSA range, which indicates an intermediate risk of developing prostate cancer. About 8 percent of these involve men who had normal rectal exams.

In the study, biopsies determined that 379 men had the cancer and that 394 others had benign prostatic disease, a noncancerous enlargement of the gland.

To determine how well secondary screens stack up, the researchers compared the number of cancers predicted by:

- the standard PSA test;
- a man's age;
- a test for another circulating form of PSA called free PSA; or

• an ultrasound scan, which can measure the size of the prostate gland.

Some doctors won't recommend a biopsy for men between 60 and 70 years of age until the PSA level climbs to 4.5 nanograms per milliliter (ng/ml) or higher. For men over 70, a

cutoff value of 6.5 ng/ml or above often is used. The researchers found that either 20 percent (for 4.5 ng/ml) or 60 percent (for 6.5 ng/ml) of the volunteers' cancers were missed if they used these cutoffs.

Following the standard PSA test with the Hybritech free PSA test detected 95 percent of the cancers and would have reduced exploratory biopsies by 20 percent. The free PSA test detects a form of PSA that is not attached to other proteins. Blood levels of this free-floating form of PSA dip when prostate cancer is present. Both tests were developed by Hybritech Inc., a San Diego-based subsidiary of Beckman Coulter of Fullerton, Calif., which funded the study.

When ultrasound is used for screening, an enlarged prostate gland combined with a high PSA level on the traditional test predicts cancer. However, the researchers knew that a circulating PSA level on the standard test of below 4.0 ng/ml can indicate prostate cancer. So they used a lower PSA cutoff for their comparisons.

Under these conditions, the ratio of PSA to prostate gland size, called PSA density, was as sensitive at detecting cancer as the combined PSA tests. "When we used the standard ratio of PSA level to gland size of 0.15, PSA density was not as good as the free PSA test," Catalona said. "But when we used the 0.10 cutoff, PSA density also predicted 95 percent of the cancers."

Catalona noted, however, that the PSA density test requires ultrasound examination, which is uncomfortable and costs hundreds of dollars. The free PSA blood test costs \$100 at most.

The latter also can be performed on the same blood sample as the standard PSA test. Moreover, a previous study led by Catalona on the same 773 men demonstrated that the two PSA tests can be combined to predict prostate cancer aggressiveness — information that can guide treatment decisions. That study was published in the May 20, 1998, issue of *The Journal of the American Medical Association*.

"Of all the approaches suggested to improve the accuracy of PSA testing, the free PSA test performs best, costs less and is less invasive," Catalona said.



**Serious play** Amy Klein, a student in the Program in Occupational Therapy, bats a balloon around with patient Stacey C. Greene at Christian Hospital Northeast. The drill helps patients learn how to keep their balance while moving. Greene suffered full paralysis after emergency surgery for a spinal cord injury. It was feared that she would never walk again. But she was discharged from the hospital — walking — not long after this picture was taken.

## Finding offers hope for treatment of tuberculosis

Researchers working at the School of Medicine as part of a multi-institutional study have identified an enzyme that enables the tuberculosis bacterium to persist despite counterattacks of the immune system. This finding could open the door to better drugs to treat the chronic stage of the disease. "Persistence is one of the hallmarks of this organism," said David G. Russell, Ph.D., senior author of the paper published in the Aug. 17 issue of *Nature*. "It's what makes tuberculosis such a serious problem."

When the study was performed, Russell was a professor of molecular microbiology at the medical school. He now is professor and chair of microbiology and immunology at the College of Veterinary Medicine, Cornell University.

The tuberculosis bacterium, *Mycobacterium tuberculosis*, is the world's most deadly infectious organism, killing 3 million people each year. White blood cells called macrophages, which normally destroy harmful microbes, ingest the bacterium. But *M. tuberculosis* is able to survive and grow inside macrophages for years.

Russell and his colleagues

suspected this was made possible in part by the glyoxylate shunt, a biochemical pathway that allows bacteria to use compounds containing only two carbon atoms as food. Isocitrate lyase (ICL) is a key enzyme in this shunt.

To test this idea, collaborators John D. McKinney of The Rockefeller University and William R. Jacobs Jr. of the Howard Hughes Medical Institute at Albert Einstein College of Medicine genetically deprived *M. tuberculosis* of the ability to make ICL. They then infected one group of mice with the mutant strain and a second group with the normal strain.

During the early, acute phase, both host groups developed the infection at the same rate. Later, however, the mutant bacteria were steadily eliminated while the normal strain persisted. Only the mice in the second group developed inflamed and enlarged lungs.

In another part of the study, researchers learned that *M. tuberculosis* produces ICL at a much greater rate in activated macrophages than in resting ones. The mutant bacterium also was much less able to survive inside activated macrophages than in resting macrophages, suggesting that *M. tuberculosis* must use the glyoxylate shunt to survive when

macrophages become activated. "This is the first demonstration that a metabolic pathway of an infectious agent can be dictated by the immune status of a host," Russell noted.

Tuberculosis is chronic, physicians believe, because patients harbor bacteria in various metabolic states. "The drugs we now use against the disease hit only the rapidly multiplying bacteria," explained Russell. "They miss the vegetative ones. So ICL, which appears crucial to the survival of bacteria in the vegetative state, may make a good target for the development of therapeutic drugs."

Further collaboration with James C. Sacchettini at Texas A&M University has led to the imaging of the combination of ICL with prototypes of inhibitors (published in *Nature Structural Biology*). Therefore, the development of specific inhibitors of ICL appears feasible and is the basis of an ongoing interaction with Glaxo Wellcome. Such drugs presumably could be used against *M. tuberculosis* without harming patients, because humans appear to lack the glyoxylate shunt pathway.

# University Events

## Faculty, alumni take to the stage in 'Dance Close-Up 2000'



David Dorfman, a 1977 alumnus and founder of David Dorfman Dance, is one of nine alumni to be showcased in "Dance Close-Up 2000" Sept. 15 and 16 at Edison Theatre.

BY LIAM OTTEN

Those who teach can in fact do, a fact more than proven over the last five years by Washington University's annual "Dance Close-Up" concert, which showcases outstanding dance faculty from the Performing Arts Department in Arts & Sciences. This year's installment also will demonstrate a related thesis — that those who teach can teach very well indeed — by including for the first time some of the University's most distinguished dance alumni.

A total of 33 dancers from across the United States will perform 16 original works in two different programs at 8 p.m. Friday and Saturday, Sept. 15 and 16, at Edison Theatre. Seven faculty and nine alumni choreographers will contribute to the concerts, which are often considered the unofficial kick-off of St. Louis' professional dance season.

"The beginning of a new millennium seemed the right time to celebrate the achievements of dance alumni as well as the current lively state of the art at Washington University," said Mary-Jean Cowell, Ph.D.,

associate professor and coordinator of the Dance Program in Arts & Sciences, who serves as the show's artistic director.

Perhaps the best-known returning alumnus is choreographer David Dorfman (BU '77), founder of David Dorfman Dance, who will perform a recent work entitled "What I Know About Cats." Dorfman has performed extensively in New York City and throughout North and South America, Great Britain and Europe. His many awards include two New York Foundation for the Arts fellowships, an American Choreographer's Award, the first Paul Taylor Fellowship and a New York Dance and Performance Award.

Other notable returnees include Angela Culbertson (LA '86), founder of St. Louis' ATREK Dance Co.; Chell Parkins Garcia-Trias (LA '94), founder of Brigid's Daisy in San Francisco; Susan Gash (LA '79), co-founder of St. Louis' Gash/Voigt Dance Co.; Allyson Green (FA '83), of Allyson Green Dance in New York City; Lê Minh Tâm (LA '96), of Lê Minh Tâm Dance in New York City; Georgia Stephens (LA '78), of the Georgia Stephens Dance Company in Minneapolis; and Robin Wilson (LA '77), a founding member of Urban Bush Women.

Faculty artists include Cowell; David W. Marchant, senior artist in residence; Christine O'Neal, senior artist in residence and director of the University's ballet program;

### 'Dance Close-Up 2000'

Who Dance Program faculty and alumni

Where Edison Theatre

When 8 p.m. Sept. 15 and 16

Tickets \$15, \$10 for senior citizens, WU faculty, staff and students; combined price for both evenings \$25, \$15 for seniors, WU faculty, staff and students

Chiquita Payne, (LA '91 and OT '98), Asha Prem and Mary Ann Rund, all adjunct instructors; and Cecil Slaughter, artist in residence.

"Looking at these dances — and at the work typical of our dance alumni — it's clear that the choreographers love ideas as well as movement," Cowell noted, pointing out that the University's strong liberal arts tradition encourages a certain intellectual adventurousness. "The idea becomes the 'motor' that drives the work, whether it's the cultural content of an African or Indian dance, a theme embodied completely in movement or a concept that also demands some form of multimedia expression."

Tickets are \$15 each evening for the general public and \$10 for senior citizens and Washington University faculty, staff and students. Combined tickets for both evenings may be purchased for \$25 and \$15, respectively. Tickets are available at the Edison Theatre box office, 935-6543, or through MetroTix, 534-1111.

## 'The Lost Weekend' • Neutrino Odyssey • Asthma • Pain Management • Jane Austen

"University Events" lists a portion of the activities taking place at Washington University Sept. 8-20. Visit the Web for expanded calendars for the School of Medicine ([medschool.wustl.edu/events/](http://medschool.wustl.edu/events/)) and the Hilltop Campus ([cf6000.wustl.edu/calendar/events/](http://cf6000.wustl.edu/calendar/events/)).

### Exhibitions

"Basement Show." Kevin L. Robinson, Philip Slein and Christopher Paquet, painters. Through Sept. 17. Des Lee Gallery, University Lofts Bldg., 1627 Washington Ave. 621-3703.

"Eleanor Antin: A Retrospective." Sept. 8 through Nov. 5 (reception 5-7 p.m. Sept. 8). Gallery of Art. 935-4523.

### Film

#### Wednesday, Sept. 13

7 p.m. Eleanor Antin Film Series, Evening One. "The Man Without a World." Pier Marton, filmmaker and senior lecturer, Performing Arts Dept.,

will speak following the screening. Gallery of Art. 935-5490.

#### Thursday, Sept. 14

7 p.m. Social Work "Reel Lives" Film Series. "The Scar of Shame." Room 100 Brown Hall. 935-4780.

8:50 p.m. Social Work "Reel Lives" Film Series. "Wild Boys of the Road." Room 100 Brown Hall. 935-4780.

#### Friday, Sept. 15

7 p.m. Social Work "Reel Lives" Film Series. "The Lost Weekend." Room 100 Brown Hall. 935-4780.

#### Saturday, Sept. 16

3 p.m. Social Work "Reel Lives" Film Series. "Tokyo Story." Room 100 Brown Hall. 935-4780.

6 p.m. Social Work "Reel Lives" Film Series. "To Kill a Mockingbird." Room 100 Brown Hall. 935-4780.

8:45 p.m. Social Work "Reel Lives" Film Series. "Norma Rae." Room 100 Brown Hall. 935-4780.

#### Sunday, Sept. 17

5 p.m. Social Work "Reel Lives" Film Series. "My Left Foot." Room 100 Brown Hall. 935-4780.

7:15 p.m. Social Work "Reel Lives" Film Series. "Philadelphia." Room 100 Brown Hall. 935-4780.

### Lectures

#### Friday, Sept. 8

9:15 a.m. Pediatric Grand Rounds. "State of the Department." Alan L. Schwartz, the Harriet B. Spoehrer Prof. and head of pediatrics and prof. of molecular biology and pharmacology. Clopton Aud., 4950 Children's Place. 454-6006.

Noon. Cell biology and physiology seminar. "Actin Machinery: Pushing the Envelope." Gary G. Borisy, prof. and chair of molecular biology and zoology, U. of Wis., Madison. Room 426 McDonnell Medical Sciences Bldg. 362-3964.

4 p.m. Hematology seminar. "Blood and Guts: Erythroid Transcription Factors and Endoderm Development." David B. Wilson, assoc. prof. of molecular biology and pharmacology and of pediatrics. Room 8841 Clinical Sciences Research Bldg. 362-8801.

#### Saturday, Sept. 9

5 p.m. Gallery of Art panel discussion. Eleanor Antin, artist and filmmaker, and Howard Fox, curator of contemporary art, Los Angeles County Museum of Art. Gallery of Art. 935-5490.

#### Monday, Sept. 11

Noon-1 p.m. Molecular biology and pharmacology seminar. "Embryonic Induction." Ali Hemmati-Brivanlou, prof. and head of lab, molecular vertebrates and embryology dept., The Rockefeller U., N.Y. Room 3907 South Bldg. 362-2725.

4 p.m. Biology seminar. "The Evolutionary Origin of Signaling Between Cells." John Tyler Bonner, the George M. Moffett Prof. of biology, Princeton. Room 322 Rebstock Hall. 935-6860.

#### Tuesday, Sept. 12

4 p.m. Molecular microbiology lecture. "The Return of the Human Genome." Sydney Brenner, dir. of research, Molecular Sciences Inst., Berkeley, Calif. Moore Aud., 660 S. Euclid Ave. 747-4254.

5 p.m. Art History and Archaeology Graduate Student Lecture Series. "Sanford Gifford and Issues of Hudson River School Painting." Franklin Kelly, curator of British and American painting, National Gallery, Washington, D.C. Room 116 Givens Hall. 935-5270.

#### Wednesday, Sept. 13

8 a.m. Obstetrics and Gynecology Grand Rounds. "Renal Physiology in Pregnancy – The Basics." Solange M. Wyatt, chief resident of obstetrics and gynecology. Clopton Aud., 4950 Children's Place. 362-1016.

11 a.m. Assembly Series. "Dr. Ruth's Guide to Campus Life: The Savvy Student's Handbook." Dr. Ruth Westheimer, author, psychosexual therapist and media psychologist. Graham Chapel. 935-5285.

3:45 p.m. Physics colloquium. "Neutrino Odyssey." Vernon D. Barger, prof. of physics, U. of Wis., Madison. Room 204 Crow Hall (coffee 3:30 p.m., Room 241 Compton Hall). 935-6276.

5:15 p.m. Mothers and Babies Research Center conference lecture. "Transcriptional Regulation of Reproductive Development: A Dead End." Yoel Sadovsky, assoc. prof. of obstetrics and gynecology and of cell biology and physiology. Room 36, third floor south, St. Louis Children's Hosp. 747-0739.

#### Thursday, Sept. 14

Noon-1 p.m. Genetics seminar. "Molecular Analysis of Virulence in *Toxoplasma*." David L. Sibley, assoc. prof. of molecular microbiology. Room 823 McDonnell Medical Sciences Bldg. 362-7072.

2:30 p.m. Mechanical engineering seminar. "Spectral-based Simulations of Fundamental 2D and 3D Dynamic Fracture Problems." Philippe Geubelle, prof. of theoretical and applied mechanics, U. of Ill., Urbana-Champaign. Room 100 Cupples II Hall. 935-7096.

4 p.m. Russian lecture. "Collective Memory in Russia." James V. Wertsch, prof. of Russian studies and chair of education dept. Room 115 Eads Hall. 935-5177.

#### Friday, Sept. 15

9:15 a.m. Pediatric Grand Rounds. "Continued Morbidity From Asthma in the St. Louis Community: Approaching the Problem From the Primary Care Practice." Robert C. Strunk, prof. of pediatrics, div. of allergy and pulmonary medicine. Clopton Aud., 4950 Children's Place. 454-6006.

Noon. Cell biology and physiology seminar. "Sensory Glutamate Synapses and Plasticity." Min Zhuo, assoc. prof. of anesthesiology and of anatomy and neurobiology. Room 426 McDonnell Medical Sciences Bldg. 362-6950.

#### 2 p.m. Center for Interdisciplinary Studies symposium.

"Judicial Norms." Four political science and law scholars. Bryan Cave Moot Courtroom, Anheuser-Busch Hall. 935-4016.



7:30 p.m. St. Louis Astronomical Society lecture. "Native American Archaeoastronomy." William Iseminger, public relations dir., Cahokia Mounds Historic Site. Co-sponsored by earth and planetary sciences dept. and NASA's Mo. Space Grant Consortium. Room 162 McDonnell Hall. 935-4614.

#### Monday, Sept. 18

Noon-1 p.m. Molecular biology and pharmacology seminar. "Synapse Assembly and Glutamate Receptor Targeting in Hippocampal Neurons." Ann Marie Craig, assoc. prof. of anatomy and neurobiology. Room 3907 South Bldg. 362-2725.

#### Tuesday, Sept. 19

Noon. Molecular Microbiology and Microbial Pathogenesis Seminar Series. "TLR2 and TLR4 Are Macrophage Sensors of Microbial Products." Douglas Goldenbock, prof. of medicine, Boston U. Cori Aud., 4565 McKinley Ave. 362-7059.

12:10-12:55 p.m. Physical therapy research seminar. "Repairing the Damaged Spinal Cord." John McDonald, asst. prof. of neurology and neurological surgery and dir. of Spinal Cord Injury Unit. Classroom B110, 4444 Forest Park Bldg. 286-1400.

#### Wednesday, Sept. 20

7:30 a.m. Orthopaedic Surgery Grand Rounds. "Current Concepts in Pain Management." Anthony H. Guarino, asst. prof. of anesthesiology and dir. of pain management. Scarpellino Aud., first floor, 510 S. Kingshighway Blvd. 747-2562.

8 a.m. Obstetrics and Gynecology Grand Rounds. "The Emerging Biology of Estrogen: Implications for Clinicians." Michael J. Gast, vice pres. of scientific affairs, Wyeth Ayerst Global Medical Affairs. Clopton Aud., 4950 Children's Place. 362-1016.

11 a.m. Assembly Series. Oscar Hijuelos, Pulitzer Prize-winning novelist, will give a reading and commentary. Graham Chapel. 935-5285. See story on page 5.

4 p.m. Eugene Feenberg Memorial Lecture in Physics. "Quantum Indistinguishability." Michael Berry, Royal Society Research Prof., Bristol U., England. Room 201 Crow Hall. 935-6276.

5:15 p.m. Mothers and Babies Research

## Acclaimed poet to give reading

Poet Mary Jo Bang, author of "Apology for Want" (1997), will read from her work at 8 p.m. Tuesday, Sept. 12, for the Creative Writing Program Reading Series in Arts & Sciences. Bang recently joined the faculty as an assistant professor in the Department of English in Arts & Sciences, where she will teach courses in creative writing.

The reading is free and open to the public and takes place in Hurst Lounge, Room 201 Duncker Hall.

"Apology for Want," Bang's first collection of poems, won the Bakeless Award (sponsored by the Bread Loaf Writers' Conference of Middlebury College) and the Green Lakes Colleges Association New Writers Award. Her poems, which are noted for their freshness and dark sense of elegance, have appeared in numerous

magazines and journals, including The New Yorker, The New Republic, Paris Review, The Nation and Partisan Review.

Bang grew up in St. Louis and holds degrees in sociology, photography and creative writing from Northwestern University, Westminster University in London and Columbia University in New York, respectively. During the 1999-2000 academic year she was a Hodder Fellow at Princeton University. She has two books forthcoming in 2001: "Louise in Love" from the Grove/Atlantic Press, and "The Downtrodden Extremity of the Isle of Swans" from the University of Georgia Press.

A book signing will follow the reading, and copies of Bang's works will be available for purchase. For more information, call 935-7130.

## Pulitzer-winning author giving Latino Awareness Week lecture

Author Oscar Hijuelos will deliver the Anikka Rodriguez Latino Awareness Week lecture at 11 a.m. Sept. 20 in Graham Chapel. The lecture, part of the Assembly Series, is free and open to the public.



### Assembly Series

**Who** Oscar Hijuelos  
**Where** Graham Chapel  
**When** 11 a.m. Sept. 20  
**Admission** Free and open to the public

and was made into a movie starring Antonio Banderas and Armand Assante. His most recent novel, "Empress of the Splendid Season," also is receiving positive reviews.

This month Hijuelos will be honored at the Kennedy Center in Washington, D.C., as part of the National Hispanic Heritage Awards in an event televised on NBC-TV.

Hijuelos received both bachelor's and master's degrees from the City University of New York.

For more information, visit the Assembly Series Web page (<http://wupa.wustl.edu/assembly>) or call 935-5285.

Hijuelos began his writing career while working in an advertising agency. His first novel, "Our House in the Last World," won several awards, including The American Academy of Arts and Letters' Rome Prize, a fellowship from the National Endowment for the Arts and an Ingram-Merrill fellowship. For his second novel, "Mambo Kings Play Songs of Love," Hijuelos won the 1990 Pulitzer Prize for Fiction — the first time a Hispanic writer won this award. The novel examines an immigrant family's migration to the United States in the 1940s

**Center conference lecture.** "3-D Ultrasound in Obstetrics." Ralf Schild, fellow in genetics, maternal-fetal medicine, ultrasound div. in obstetrics and gynecology. Lower North-2, St. Louis Children's Hosp. 747-0739.

## Music

### Saturday, Sept. 16

**8 p.m. Music dept. recital.** "A Program of 20th-century Music for Clarinet." Paul Garrison, instructor in clarinet, and Donna Loewy, pianist, Cincinnati College Conservatory of Music. Steinberg Hall Aud. 935-4841.

## On stage

### Friday, Sept. 15

**8 p.m. "Dance Close-Up 2000: Alumni Celebration."** Faculty and alumni from the dance program in Performing Arts Dept. (Also Sept. 16, same time.) Cost: \$15, \$10 for WU faculty, staff, students and senior citizens (combined tickets for both evenings may be purchased for \$25 and \$15, respectively). Edison Theatre. 935-5858.

## Sports

### Friday, Sept. 8

**4 p.m. Volleyball** vs. Fontbonne College, Mo. Field House. 935-5220.  
**8:30 p.m. Volleyball** vs. Bethany College, Kan. Field House. 935-5220.

### Saturday, Sept. 9

**10 a.m. Cross country:** WU Invitational. Forest Park. 935-5220.  
**12:30 p.m. Volleyball** vs. Westminster College, Mo. Field House. 935-5220.  
**1 p.m. Women's soccer** vs. Coe College, Iowa. Francis Field. 935-5220.  
**3 p.m. Volleyball** vs. Elmhurst College, Ill. Field House. 935-5220.

### Sunday, Sept. 10

**11 a.m. Women's soccer** vs. U. of Wis., Eau Claire. Francis Field. 935-5220.

### Friday, Sept. 15

**4 p.m. Volleyball** vs. U. of St. Francis, Ill. Field House. 935-5220.  
**7 p.m. Men's soccer** vs. U. of Wis., Platteville. Francis Field. 935-5220.  
**8:30 p.m. Volleyball** vs. Central College, Iowa. Field House. 935-5220.

### Saturday, Sept. 16

**12:30 p.m. Football** vs. Case Western Reserve U., Ohio. Francis Field. 935-5220.  
**1:30 p.m. Volleyball** vs. Ohio Northern U. Field House. 935-5220.  
**4 p.m. Volleyball** vs. U. of Wis., River Falls. Field House. 935-5220.

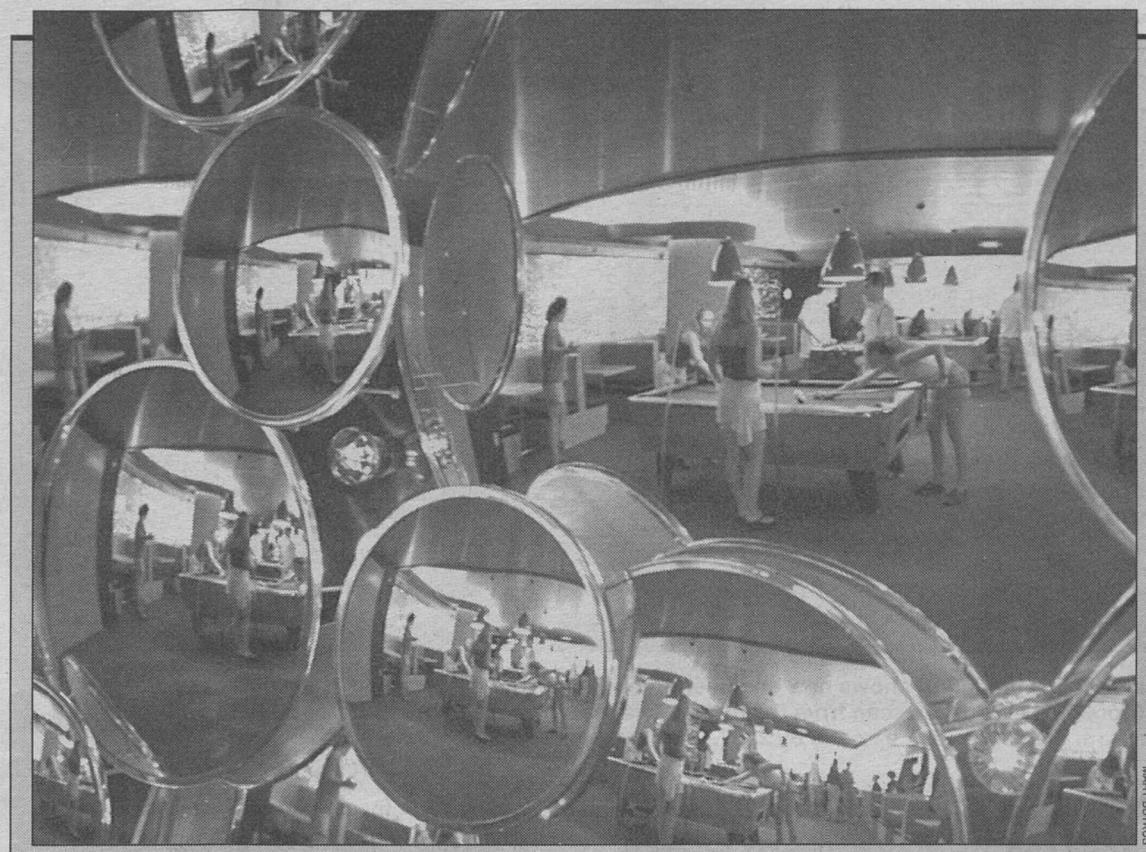
### Monday, Sept. 18

**7 p.m. Men's soccer** vs. Maryville U., Mo. Francis Field. 935-5220.

## Worship

### Sunday, Sept. 10

**11 a.m. and 9 p.m. World Jubilee Day for Teachers.** Mass will include blessing for faculty. Catholic Student Center, 6352 Forsyth Blvd. 935-9191.



**Reflecting good times** Dynamic design elements and eye-catching attention to detail — plus some good old-fashioned fun — mark Ursa's Café, a vibrant 7,260-square foot eatery located in the wedge between Lien and Gregg residential houses. Borrowing its name from the Latin for "bear," Ursa's had its grand opening Sept. 1. "It's a lively, creative and exciting outlet for students," said Justin X. Carroll, assistant vice chancellor for students and dean of students. Here, students christen the pool table.

## National conference focuses on asset building

**C**an innovative anti-poverty strategies based on asset building expand to benefit more people?

The George Warren Brown School of Social Work's Center for Social Development (CSD) will examine this question in a national conference titled "Inclusion in Asset Building: Research and Policy" Sept. 21-23, coordinated by Michael Sherraden, Ph.D., center director and the Benjamin Youngdahl Professor of Social Development, and Lisa Morris, Ph.D., assistant professor of social work.

The conference will open with a videotaped welcome by President Clinton, an advocate of Individual Development Accounts (IDAs). Pioneered by Sherraden, IDAs serve as a means of extending matching funds to low- and moderate-income families to encourage savings and asset building. The savings can be used for investment in higher education, home ownership, small

business development and retirement security.

Using data from its ongoing research project on IDAs at 14 sites nationwide, the CSD has been providing analyses of asset-building strategies to the Clinton administration. "The data show that low-income IDA participants save a mean of \$33 per month, and the very poorest save almost as much as others," Sherraden said. "These results are consistent with an institutional theory of saving, wherein a program with expectations, information, incentives, access and facilitation may be as important as individual characteristics, even income, in determining saving behavior."

Supported by a grant from the Ford Foundation, the conference will include leading experts presenting papers on asset building from sociological, empirical and public policy perspectives. Open to invited participants, the symposium is part of the school's 75th anniversary celebration.

In his 1991 book "Assets and the Poor," Sherraden argued that asset accumulation is structured and subsidized for many non-poor



**Sherraden:** Shaping anti-poverty tools

households, primarily via retirement accounts and home ownership, with subsidies in the form of generous tax benefits. IDAs serve as a means of promoting asset building among people who do not have access to these subsidies.

Sherraden recently learned that CSD research has been influential in decisions in the United Kingdom to move toward a progressive asset-building policy. In June, he met with British researchers at the Institute for Public Policy Research and treasury officials to discuss asset building and IDAs there.

## And more...

### Saturday, Sept. 9

**9 a.m. University College professional development workshop.** "Navigating the Net." Rob Compton, mgr. of Arts & Sciences Computing Center. Cost: \$30. 935-6759.

**10 a.m. University College fiction writing workshop.** Peter Leach, award-winning writer. (Saturdays through Oct. 28.) Cost: \$270. Room 211 Duncker Hall. 935-6759.

**10 a.m. University College poetry writing workshop.** Corinne Wohlford, poet. (Saturdays through Oct. 28.) Cost: \$270. Room 109 Duncker Hall. 935-6759.

### Monday, Sept. 11

**2 p.m. University College short course.** "Music and Dance: Stravinsky at the Saint Louis Symphony." Christine Knoblauch-O'Neal, senior artist in residence, and Sue Taylor, lecturer in music. (Continues Sept. 18, 25 and Oct. 2.) Cost: \$80; \$70 for Friends of Music. 935-6759.

### Tuesday, Sept. 12

**8 p.m. Creative Writing Program Reading Series.** Mary Jo Bang, poet and asst. prof. of English, will read from her work. Hurst Lounge, Room 201 Duncker Hall. 935-7130.

### Wednesday, Sept. 13

**1 p.m. McDonnell Pediatric Research Bldg. Dedication: Scientific Program.** Four distinguished lecturers. A 4 p.m. tour of the McDonnell Bldg. will follow the lecture program. Eric P. Newman Education Center Aud. 454-6006.

### Thursday, Sept. 14

**8 a.m. STD/HIV telecourse.** "Perinatal Sexually Transmitted Diseases." Cost: \$100; \$75 for students with I.D. (breakfast and lunch included). UM St. Louis, Southwestern Bell Telecommunity Center. To register, call 516-5948.

### Friday, Sept. 15

**12:30 p.m. Research and Clinical Symposium: A Tribute to Bernard Becker, M.D.** (Continues Sept. 16, 8 a.m.)

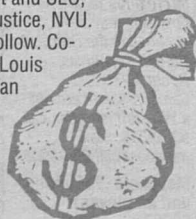
Sponsored by Continuing Medical Education office, ophthalmology and visual sciences dept. and Barnes Retina Inst. Eric P. Newman Education Center Aud. To register, call 362-5722.

### Saturday, Sept. 16

**9 a.m. University College professional development workshop.** "Introduction to Web Page Design." Rob Compton, mgr. of Arts & Sciences Computing Center. Cost: \$30. 935-6759.

### Sunday, Sept. 17

**2 p.m. School of Law 22nd Annual Constitutional Conference.** "The First Amendment and Campaign Finance Reform: Does Money = Free Speech?" E. Joshua Rosenkranz, president and CEO, Brennan Center for Justice, NYU. Panel discussion to follow. Co-sponsored by the St. Louis chapter of the American Jewish Congress. Bryan Cave Moot Courtroom, Anheuser-Busch Hall. 997-2236. (See story on page 6.)



### Tuesday, Sept. 19

**8 a.m. STD/HIV Prevention Training Center STD update course.** (Continuing through Sept. 22.) Cost: \$65. The Bernard Becker Medical Library. To register, call 747-1522.

### Wednesday, Sept. 20

**11 a.m. University College short course.** "Jane Austen: A Close Reading." Amy J. Pawl, adjunct asst. prof. of English. (Continues Oct. 18, Nov. 15 and Dec. 13.) Cost: \$80. 935-6759.

**11 a.m.-noon. Russian dept. open house.** For first-year students. Room 216 S. Ridgely Hall. 935-5177.

## Sports Section

### Bears swamp foes

Greg Lake tossed three touch-down passes and the defense surrendered just 34 total yards as the football team opened the 2000 season with a 37-0 win over Westminster College Saturday, Sept. 2, at Francis Field. The victory was the 11th-straight season-opening win for the Bears and the fourth season-opening shutout in the last five years.

### Women's soccer wins

The women's soccer team got the 2000 season started on the right foot as the Bears posted a 2-1 overtime win at Maryville University Sept. 1. The Bears were kept in check until the 73 minute, 28 second mark, when freshman Kim Raess scored her first career goal on an assist from Jessica

Glick to tie the score at 1-1. From there it was on to overtime, where junior Stacy Trent gave the Bears the win by heading in a Trisha Young corner kick.

### Men rebound

After dropping a heartbreaker against Rockford College to open the season, the Bears first opening-day loss since 1988, the men's soccer team rebounded with a 1-0 win in overtime over Principia College. WU's defense did not allow a shot for the entire 98 minutes, and freshman Steve Bujarski's goal 8:14 into the first sudden death overtime, off a cross from Casey Lien, gave the Bears the victory.

### Volleyball team 3-1

The Bears started out the season on the wrong foot Sept. 1,

dropping a five-game match to St. Olaf College, but then immediately redeemed themselves in the nightcap. Facing defending national champion Central College, WU ended the host's 60-match win streak with a commanding 3-1 victory over the Dutch. In the first match Saturday, Sept. 2, WU quickly disposed of Gustavus Adolphus College in three games. In the final match of the weekend, WU prevailed over the University of Wisconsin-River Falls 3-2.

### Runners strong

The women's cross country team placed all seven of its runners in the top 10 at the SIUE Invitational, running away with top honors, while the men's team put all its runners in the top 20, garnering a second-place finish.



An architect's rendering shows new engineering buildings and landscaping at the corner of Skinker and Millbrook boulevards, as seen from the former Talayna's pizza restaurant. Major building efforts will transform the east end of campus by 2007.

## Plans

East campus to get six new buildings  
— from page 1

"We want to be a great university for this region," McLeod told the audience. "No region can sustain growth and prosperity over time without centers of learning."

McLeod said the University is fortunate in having a planned campus dating from the beginning of the 20th century. "We've used well the space we have," he observed. The new developments will enhance the appearance of the campus, he added, with handsome architecture and landscaping.

The new buildings will cause the loss of as many as 1,200 surface parking spaces, which the University proposes to replace in part with an underground parking facility. Three options are still under consideration: Two would place the garage under the grand staircase leading up the hill to Brookings Hall, and the third would put it under Brookings Drive, requiring the replacement of four rows of 90-year-old oak trees along the east- and west-bound lanes. A recently completed horticultural study revealed that a large number of the trees are distressed, with a life expectancy of only 10 years.

Whatever choice is ultimately made, Brookings Drive would remain the "signature" entry to the campus.

Hoffner said a final decision on the underground parking awaits the results of core and soil samples and will be made in the near future.

Hoffner also announced plans to demolish the former Talayna's building, at the northeast corner of Skinker and Millbrook boulevards, replacing it with an office/retail building designed to complement the neighborhood. The ground floor will house small independent shops, and University offices will occupy upper floors. The parking currently available on the site will be increased by including a parking facility in the new building.

Showing slides of architects' renderings and the footprint of the new campus buildings, Hoffner pointed out that the plans include extensive landscaping, new walkways along Skinker and Millbrook boulevards and improved lighting.

Addressing the audience, McLeod emphasized the relationship between residents and the University in the area. "Washington University is my home. The Skinker-DeBaliviere neighborhood is also my home," he said of the district northeast of the campus. "I believe we have been good for each other, that we've made contributions to one another. Certainly the beautiful surrounding areas are a tremendous asset to us."

He said that in developing the new plans, the University has tried to be sensitive to "its history, its location and its impact on our neighbors."

Hoffner said that if the University is to attract and retain the best students, faculty and staff, it must continue to upgrade its facilities. But, he added, the University does not anticipate enlarging its undergraduate student body, though he acknowledged that "there will be an

increase in research activity at this end of campus," which could result in a small increase in faculty and staff.

Many residents had questions. There was considerable interest in the proposed new building on the Talayna's site, particularly about traffic congestion around it. Parking continues to be an issue for homeowners near campus, who object to students and employees parking on their streets. Hoffner and McLeod both repeated the University's commitment to providing ample parking with a variety of cost options.

In response to a suggestion that underground parking accompany the new campus buildings, McLeod said the University considered that possibility but rejected it. "We anticipate these buildings will be here for hundreds of years," he explained, "far longer than the parking lots." He also noted that putting cars, with their vibrations and fumes, in buildings with sensitive scientific equipment and, in the case of the VADC, a valuable art collection, is "problematic."

A couple of residents expressed interest in the University's plans for a residential property it owns on the northeast corner of Skinker and Lindell boulevards, and a second adjacent property it is acquiring. McLeod said the University has no firm plans for the corner property but is considering converting the lot to green space or replacing the existing structure with a new home. The adjacent property and dwelling will be occupied by the present owner and, when that owner leaves, by a member of the faculty or administration.

## Interdisciplinary law program offers symposia, conference

By ANN NICHOLSON

Two Nobel laureates and the special master in the Microsoft antitrust case are among the scholars and practitioners who will participate in a yearlong program on "Norms and the Law," focusing on the relationship between law and social, cultural, religious and economic norms. It is the inaugural program of the School of Law's new Center for Interdisciplinary Studies.

The center will host three fall symposia beginning Sept. 15 and leading up to a conference March 30-31, 2001, featuring the symposia scholars and a keynote address by Amartya Sen, 1998 Nobel laureate in Economic Science and master of Trinity

Kramer, professor at NYU School of Law, on norms that work toward an honest, independent judiciary in the United States. Lawrence Friedman, Stanford University law professor and pre-eminent legal historian, will present a historical look at the honesty of judges, and Kathryn Abrams, professor at Cornell University School of Law, will speak on judicial elections and campaign financing.

• "Complexity and Cognition," 2-5 p.m. Oct. 23, featuring 1993 Nobel Laureate in Economic Science Douglass C. North, Ph.D., the Spencer T. Olin Professor in Arts & Sciences and professor of economics, on "A Theory of Economic Change"; Cass

Sunstein, professor at the University of Chicago School of Law, on his recent work in behavioral economics as applied to the law; and Lynn Stout, professor at the

**"The annual series of conferences will raise cutting-edge legal issues that require expertise from other disciplines for full exploration."**

JOHN N. DROBAK

"The new center builds on the law school's existing interdisciplinary strengths, including its joint-degree programs and joint-faculty appointments, while recognizing that many legal issues are multidisciplinary in nature," said John N. Drobak, J.D., center director and professor of law and of economics in Arts & Sciences.

"The annual series of conferences will raise cutting-edge legal issues that require expertise from other disciplines for full exploration," he said. "At the same time, the accompanying seminar will allow students to study the work of the distinguished visiting scholars and then discuss the writings with these authors."

Drobak added that in addition to the visiting scholars and seminar participants, he hopes that University faculty and graduate students from a variety of backgrounds will attend the free symposia to further the interdisciplinary discussion.

The fall symposia are:  
• "Judicial Norms," 2-5 p.m. Sept. 15, featuring John Ferejohn, political science professor at Stanford University and professor at New York University School of Law, and his co-author Larry

Georgetown University Law Center, on her Sloan Foundation-funded research on the role of trust in corporate governance.

• "The Commons," 2-5 p.m. Nov. 1, featuring Elinor Ostrom, professor of political science and director of the Workshop in Political Theory and Policy Analysis at Indiana University, on her fieldwork related to the conservation of common, depletable resources; Lawrence Lessig, professor at Stanford University School of Law and special master in the Microsoft antitrust litigation, on "The Commons and the Internet"; and Robert Ellickson, professor at Yale University School of Law, on commons issues in the family.

During the 2001-02 academic year, the center also will work with the School of Medicine to coordinate interdisciplinary research and host programs on the theme "Regulating New Forms of Life — The Human Genome Project."

For more information on the conferences, contact Drobak at 935-6487 or visit the law school's Web site (<http://ls.wustl.edu>).

## Campaign finance reform is law school conference topic

A Sept. 17 conference, co-sponsored by the School of Law and the St. Louis Chapter of the American Jewish Congress, will reassemble the parties involved in the recent U.S. Supreme Court campaign finance reform case, "Nixon vs. Shrink Missouri Government PAC." The 22nd Annual Constitutional Conference, which is free and open to the public, will be held from 2 to 4:30 p.m. in the law school's Bryan Cave Moot Courtroom, Anheuser-Busch Hall.

E. Joshua Rosenkranz, president and CEO of the Brennan Center for Justice at New York University, will deliver the keynote address, "The First Amendment and Campaign Finance Reform: Does Money = Free Speech?" The Brennan Center represented Missouri Rep. Joan Bray (D-St. Louis) in defending a law limiting campaign contributions to statewide candidates

to \$1,075. Rosenkranz is serving as the Jerome W. Sidel Memorial Lecturer here.

A panel discussion featuring D. Bruce La Pierre, J.D., Washington University professor of law, and Gerald Greiman, the attorney who represented Bray, will follow the keynote address. La Pierre argued before the U.S. Supreme Court in favor of an appeals court decision striking down Missouri's contribution limits.

Although the Supreme Court overruled the 8th Circuit decision, the issue of campaign finance reform is again before the appeals court. Representing the Republican Party, La Pierre argued last month against state limits on campaign contributions by political parties.

For more information on the conference, call Marge Bilinsky at 997-2236 or Gail Wechsler at 872-8420.

## Employment

Use the World Wide Web to obtain complete job descriptions. Go to [https://hr.wustl.edu/\(Hilltop\)](https://hr.wustl.edu/(Hilltop)) or [http://medicine.wustl.edu/wumshr\(Medical\)](http://medicine.wustl.edu/wumshr(Medical)).

### Hilltop Campus

Information regarding positions may be obtained in the Office of Human Resources, Room 130, West Campus. If you are not a WU staff member, call 935-9836. Staff members call 935-5906.

**Mechanic (bargaining unit employee)**  
990271

**Director of Development/ Executive Faculty Liaison**  
990280

**Mechanic (bargaining unit employee)**  
990342

**Science/Engineering Librarian**  
990364

**Chemistry/Earth Sciences Libraries Assistant**  
000099

**Administrative Coordinator**  
000160

**Lab Technician**  
000208

**Sr. Prospect Researcher**  
000212

**Lab Technician III**  
000241

**Department Secretary**  
000251

**Associate Director of Capital Projects**  
000253

**Research Technician**  
000256

**Watchman (licensed)**  
000262

**Administrative Assistant**  
000278

**Sr. Research Assistant/Jr. Research Associate**  
000297

**Department Secretary**  
000323

**Director**  
000329

**Coordinator, Alumni and Student Marketing and Relations**  
000331

**Science/Engineering Librarian**  
000341

**Director of MBA Admissions and Financial Aid**  
000347

**Facilities Administrative Coordinator**  
000351

**Associate Director of Parent Programs**  
000352

**Administrative Assistant**  
000356

**Lab Technician III**  
000363

**Administrative Secretary**  
000366

**General Services Assistant**  
000377

**Government Grants Specialist**  
000382

**Shelving Assistant**  
010001

**School Accountant**  
010002

**External Reporting Accountant**  
010006

**Student Services and Programs Coordinator**  
010010

**Proposal/Profile Senior Specialist**  
010012

**Word Processing Operator**  
010013

**Operations Manager**  
010015

**Department Secretary**  
010016

**Retention and Academic Adviser**  
010017

**Special Collections Assistant**  
010019

**LAN Engineer**  
010020

**Director of Communications**  
010022

**Research Assistant**  
010023

**Manager, Business Development**  
010026

**Administrative Secretary**  
010031

**Administrative Secretary**  
010032

**Instructional Technology Specialist**  
010033

**Technical Director**  
010034

**Facility and Services Coordinator**  
010035

**Academic and Financial Analyst**  
010038

**Administrative Assistant and Alternate Workflow Coordinator**  
010039

**Data Entry Assistant (part time)**  
010040

**Service Center Team Leader**  
010042

**Cataloging Assistant**  
010044

**Associate Director of Development**  
010045

**Faculty Assistant**  
010047

**Associate Director, Information Systems**  
010049

**Library Technical Assistant**  
010050

**Data Manager and Analyst**  
010051

**Licensing Case Coordinator**  
010052

**Assistant Graphic Designer**  
010054

**Administrative Assistant and Alternate Workflow Coordinator**  
010055

**Control Specialist**  
010056

**Administrative Assistant**  
010057

**Media Adviser**  
010060

**Research Technician**  
010061

**Director of Community Relations**  
010062

**Coordinator for Greek Facilities**  
010063

**Departmental Business Manager**  
010064

**Deputized Police Officer**  
010065

**Financial Analyst**  
010066

**Lab Technician**  
010067

**Senior Regional Director of Major Gifts**  
010068

**Director of Admissions and Marketing**  
010069

**Departmental Secretary**  
010070

**Administrative Assistant**  
010071

**Mechanic (bargaining unit employee)**  
010072-010073

**News Writer/ Assistant Record Editor**  
010074

**Licensing Case Coordinator**  
010075

**MBA Records Assistant**  
010076

**Seismic Data Analyst**  
010079

## Notables

### Knight to be named Souers professor

Jack Knight, Ph.D., professor and chair of the Department of Political Science, will be named the Sidney W. Souers Professor of Government in Arts & Sciences. A formal installation will take place Nov. 28.

"I am absolutely delighted to appoint Professor Knight to the Souers professorship in government," said Edward S. Macias, Ph.D., executive vice chancellor and dean of Arts & Sciences. "Jack began his academic career at Washington University, and his career has blossomed during the past 12 years he has been here. He is an outstanding scholar in his field, and he has provided excellent leadership to our Department of Political Science. He is a superb teacher, as well.

"I am particularly pleased to recognize his considerable involvement with our interdisciplinary programs in Arts & Sciences. His wise counsel has had a significant impact on the development of these key intellectual clusters."

Knight earned a bachelor's degree from the University of North Carolina at Chapel Hill in 1974, with a double major in English literature and religious studies, and a juris doctorate in 1977 from the same institution. He earned a master of arts in 1980 and a doctorate in 1989 in political science, both from the University of Chicago.

Knight joined the political science department here in 1988. In 1995, he was promoted to associate professor with tenure and was made full professor in

1999. He served as associate chair of the Department of Political Science from 1996 to 1999, when he was appointed chair. He is a fellow in the Center for Political Economy and a member of the Committee on Social Thought & Analysis, both in Arts & Sciences.

An active participant in the University community, Knight has served as member and chair of the Faculty Council, on the executive committee of the American Culture Studies Program in Arts & Sciences, as secretary of the Senate Council and Faculty Senate, and as a member of the Fulbright Grants Committee, among many others.

Knight's primary areas of research are modern social and political theory; law, courts and jurisprudence; political economy; and philosophy of social science. His publications include "Institutions and Social Conflict" (Cambridge University Press, 1992); "Institutionen und gesellschaftlicher Konflikt" (J.C.B. Mohr, 1997); and "Explaining Social Institutions," edited with Itai Sened (The University of Michigan Press, 1995). With Lee Epstein, Ph.D., the Edward Mallinckrodt Distinguished University Professor of Political Science and professor of law at Washington University, he co-wrote the "The Choices Justices Make," which won the C. Herman Prichett Award from the American Political Science Association for the best book published on law and courts. He also has published numerous

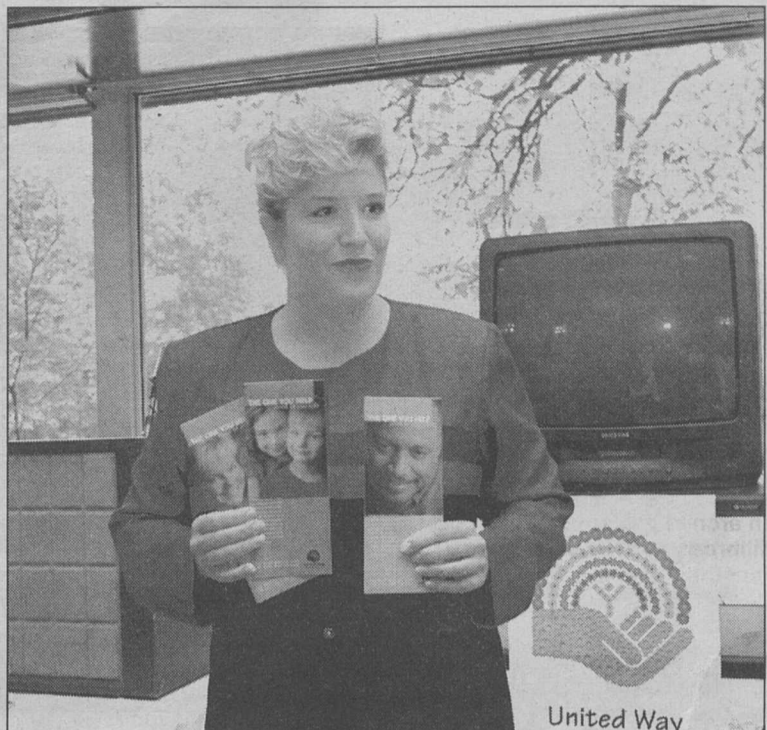
articles in journals and edited volumes on such topics as democratic theory, the rule of law, judicial decision-making, and theories of institutional emergence and change.

A dedicated teacher and mentor of both graduate and undergraduate students, Knight has supervised an extraordinary number of independent projects, honors theses and dissertations in political science. Working with John R. Bowen, Ph.D., professor of anthropology and the Dunbar-Van Cleve Professor in Arts & Sciences, Knight won a 1992 William T. Kemper Foundation Faculty Award for developing an undergraduate course on "Individual and Community," a seminar that explored the role of the individual in various forms of social organization in a community, with special attention to cross-cultural perspectives. He also plays active roles in at least three key interdisciplinary programs in Arts & Sciences, — Social Thought & Analysis, Political Economy and American Culture Studies.

The Sidney W. Souers professorships in government were established in 1982 by Sylvia N. Souers to honor her late husband and to perpetuate his dedication to public affairs and government service, and their long-standing interest in higher education and the St. Louis community. As holder of the first of the two Souers professorships, Knight succeeds John Sprague, Ph.D., professor emeritus of political science, following Sprague's retirement. James L. Gibson, Ph.D., professor of political science, was named to the second of the two professorships in 1999.



Knight: Formal installation Nov. 28



Sarah Moore, research development associate with the United Way of Greater St. Louis, addresses the Aug. 31 kickoff breakfast for the fall campaign on campus. The University's goal this year is \$425,000.

### United Way

University Campaign has \$425,000 goal

— from page 1

can continue to be strong supporters of this important community effort. I would like to see the strengthening of our level of participation, and I would also encourage those already contributing to make a slightly larger gift."

Employees will receive pledge cards in their campus mailboxes. Those who have been making donations through payroll deductions will need to fill out a new card, because their existing pledges expire at the end of the year.

At the breakfast, almost 45 campaign volunteers representing all three campuses watched a video that featured four local families sharing their stories about how the United Way of Greater St. Louis helped them. It was an emotional moment when a woman from St. Charles, Mo., described saving her son with cardiopulmonary resuscitation (CPR) after they were

involved in a car accident. She knew CPR because she had taken a course at the American Red Cross, a United Way-supported agency.

Susan Stepleton, executive director of the Edgewood Children's Center, St. Louis, also spoke to the volunteers about troubled children who have been helped at Edgewood.

"We deal with 3,000 children and families a year, and we would not be able to do the work we do without the significant contribution from the United Way," she said.

More than 160 local health and human service organizations in Illinois and Missouri benefit from contributions to the United Way of Greater St. Louis, and more than 90 cents of every dollar donated goes directly to support programs and services.

Sarah Moore, resource development associate with the United Way of Greater St. Louis, thanked the University campaign volunteers for being the voices and advocates of the United Way. "Give until it feels good," she said. "You are part of the solution. You are the people making St. Louis a better place to live."

## Obituaries

### Lloyd Norman Simpson, emeritus neurology professor

Lloyd Norman Simpson, former biomedical electronics instrumentation engineer and assistant professor emeritus in neurology and neurosurgery, died Tuesday, Aug. 22, 2000, at his home in St. Charles from Alzheimer's disease. He was 77.

In his 37 years at the School of Medicine, Simpson modified, repaired and maintained electrical recording equipment then new to the field of medicine. According to William M. Landau, M.D., professor of neurology and former head of neurology, Simpson helped

advance the fields of clinical and experimental electroencephalography and electromyography, and taught doctoral students how to use these tools to measure electrical activity in muscles, nerves and in the brain. "He was a patient teacher," said Landau.

Simpson retired in 1985, at which time he was named research assistant professor emeritus of neurology and of neurologic surgery.

Born Aug. 8, 1923, in Commerce, Mo., Simpson earned a college degree at the

University of Minnesota in 1943, followed by a three-year stint in the U.S. Army.

Simpson is survived by his wife, Mary Ellen, and daughter, Kathleen. In tribute to Simpson's battle against Alzheimer's disease, the family asks that all donations in his memory be made to the Alzheimer's Association via Kathleen Simpson, 5799 Summit Meadow, St. Charles, MO 63304.

"I hope they do more research to understand the disease, because it is devastating," Kathleen Simpson said.

### Scott Swofford, assistant football coach, teacher

Scott O. Swofford, the running backs and special teams coach with the University football team and a health, physical education and driver's education teacher at Wentzville High School, died Sunday, Sept. 3, 2000, of a heart attack. He died in the team's offices while reviewing film of the Bears' 37-0 win Saturday night over Westminster College. He was 50.

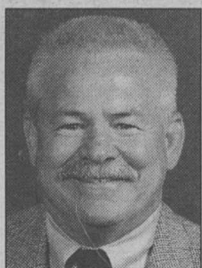
Swofford, in his second year with the Bear program, served as the head football coach at Wentzville from 1986 to 1998. He also served as the head coach at Grandview High School and at Tarkio College. He had been an assistant coach at Washburn College, Central Missouri State and Central Methodist College, his alma mater.

With a zest for being involved, Swofford was vice

president of the St. Louis Metro Coaches Association from 1997 to 2000, and active in the Fellowship of Christian Athletes and with the St. Louis Falcons rugby team.

"Scott touched the lives of many people," said Larry Kindbom, the University's head football coach. "People felt energized when they left him."

A resident of Lake St. Louis, Swofford played four years of football at Central Methodist College, earning a bachelor's degree in education in 1972. He earned a master's degree in education from Central Missouri State in 1977.



Swofford: 'Touched lives of many...'

Swofford is survived by his wife, Runa Swofford; three sons, Samuel Oscar Swofford III, Clint Youngerman and Chad Youngerman; a daughter, Sonni O. Swofford; a daughter-in-law, Jeni Youngerman; his mother, Doris Swofford; three sisters, Shelley Richardson, Stacey Rhodes and Shawn Williams; and two grandchildren.

His son, Sam, is a sophomore at the University and serves as a team manager for the football team.

A funeral service was held Wednesday, Sept. 6, on the 50-year line at Francis Field. Among those who spoke was Missouri Lt. Gov. Roger B. Wilson, a lifelong friend.

Memorials can be made to the Fellowship of Christian Athletes football camp, in care of Stygar-Drehmann-Harral funeral home, 7733 Natural Bridge Road, Normandy, Mo.

## Campus Watch

The following incidents were reported to University Police from Aug. 30–Sept. 5. Readers with information that could assist in investigating these incidents are urged to call 935-5555. This release is provided as a public service to promote safety awareness and is available on the University Police Web site at [rescomp.wustl.edu/~wupd](http://rescomp.wustl.edu/~wupd).

#### Sept. 1

9:55 p.m. — A student reported the theft of his mountain bicycle, valued at \$500, from the basement of Fraternity House #3. The bike had not been secured.

#### Sept. 3

4:54 p.m. — A student reported

the theft of his wallet, which he had inadvertently left in Simon Hall. Almost \$3,900 in purchases had been made with his credit cards.

University Police also responded to six additional reports of theft, three reports of vandalism and one report each of a suspicious person and attempted theft.



## Washington People



Medical students Julie Schwarz (left) and Christine Louly (right) observe the activity of key cell-cycle regulatory proteins with Helen Piwnica-Worms, Ph.D.

# Plumbing mysteries of cell-cycle control

## Helen Piwnica-Worms, Ph.D., rises to eminence in her field

By DAVID LINZEE

**G**rowing up in upstate New York and suburban Minneapolis, Helen Piwnica didn't intend to be a scientist. Her father was an electrical engineer, her mother a secretary, and she didn't know any scientists or have a clear idea of what they did. In movies, they were people in white coats, wearing glasses and carrying fuming test tubes. "That image had zero appeal for me," she said.

Today, Helen Piwnica-Worms (pronounced *Pwinica*, the name is Polish and means "rathskellar," while Worms is German and was hyphenated upon marriage), Ph.D., wears a white coat and carries test tubes. She even had to finish an experiment before going to the delivery room to give birth to her daughter. "She now is one of the most eminent scientists in her field," said Andrey S. Shaw, Ph.D., associate professor of pathology at the School of Medicine. She has been named a Pew Scholar in the Biomedical Sciences and a Howard Hughes Medical Institute Investigator, and has received the Paper of the Year Award in the journal *Molecular Biology of the Cell*.

Piwnica-Worms, professor of cell biology and physiology, studies regulation of cell division — cell-cycle control. "We're constantly being bombarded by radiation and other agents that damage our DNA," she explained. "Fortunately, the cell has beautiful machinery for detecting that damage."

This machinery, called checkpoints, stops the cell cycle if a cell is likely to pass on faulty DNA. When the system fails, cancer can result.

As a child, Piwnica-Worms wanted to be a science teacher so much that her parents built her a classroom in the basement. Her brother and two sisters resisted being pressed into service as pupils, so she often taught imaginary classes.

She won a scholarship to St. Olaf College in Northfield, Minn., planning to teach high school. But on graduation, she wasn't satisfied with what she knew. So she went to Duke University to continue her biology studies. "It was my first exposure to bench work, and I loved it," she said. "Out of a lust for knowledge, I fell into research."

Her introduction to cell-cycle

control came while she was a postdoctoral researcher studying cell proteins and cancer at the Dana-Farber Cancer Institute in 1987. A call came to the lab from David Beach, whose Cold Spring Harbor Laboratory was playing a leading role in the new and rapidly developing field. Beach had found that a cell-cycle protein in yeast called Cdc2 had a counterpart in humans.

Cdc2 is the gatekeeper that tells cells whether they can divide after they duplicate their DNA, a process known as mitosis. If Cdc2 malfunctions, cells with damaged DNA can continue to divide and pass mutations onto daughter cells.

For scientists to understand the biochemical underpinnings of the

ing an altered form of Cdc25C, she showed that such cells could divide even if they contained damaged DNA. This indicated that Cdc25C is essential to the checkpoint pathway. "So we had a direct link between DNA damage, a cell cycle regulator and mitosis," she said.

The findings offer hope of a new, two-stage therapy: radiation treatment to damage the DNA of cancer cells followed by a drug to disrupt Cdc25C regulation and therefore the checkpoint pathway. This approach should make cancer cells divide into defective cells that quickly die. Clinical trials are currently under way.

Piwnica-Worms met her husband, David, when she was 16, after her family relocated to Minneapolis. They went to his senior prom together, but he left for Stanford

University soon after. Five years later, though, the two married — and faced up to the continuing challenge of coordinating their careers. Their first move was to Duke University, where he entered a combined M.D./Ph.D. program while she pursued a

**"I knew as soon as I met her that she was a winner. ... She's a brilliant scientist and a good citizen of this institution. She's also a role model for women scientists, as a leader in her field who is raising two children."**

PHILIP D. STAHL

checkpoint system, they had to find regulators of Cdc2. At first, an enzyme that Piwnica-Worms was studying was a leading candidate, but her results with this candidate were negative.

### Not a setback

Characteristically, she took this as an opportunity to learn rather than as a setback. Putting aside the research that had occupied her for five years, she delved into genetic studies of yeast cells, whose cycle is similar to that of human cells. "She got in on the ground floor," said James L. Maller, Ph.D., a colleague at the University of Colorado School of Medicine in Denver. "And the early days of cell-cycle research were a special time. The checkpoints had been identified genetically, but no one knew how they worked biochemically. You had an incredibly energetic group of people trying to find the answers."

Moving back up the checkpoint pathway, researchers including Piwnica-Worms learned that a protein called Cdc25C regulates Cdc2. Over the next several years, she made important discoveries about how the two proteins interact. She reported some of these findings in the journal *Science* in 1997, pinpointing a molecule that binds to Cdc25C and inhibits its interaction with Cdc2. Working with cells express-

Ph.D. in microbiology and immunology.

Degrees completed, they spent 10 years in Boston, with mixed feelings. It was ideal for their careers, Piwnica-Worms said, but she didn't like living in a place where traffic drowns out the singing of birds. The couple moved frequently, trying to find a quiet suburb within commuting range. They now had children, and thought fondly of their Midwestern childhoods.

When the first overture from Washington University School of Medicine came in 1993, however, Piwnica-Worms was hesitant. It was the year of the Great Flood, and the media gave the impression that St. Louis was under water. But a visit to campus and a warm reception from the faculty changed her mind. The medical school also offered a position to her husband, who now is professor of radiology and molecular biology and pharmacology.

"I knew as soon as I met her that she was a winner," said Philip D. Stahl, Ph.D., professor and head of cell biology and physiology. "And that's turned out to be the case. She's a brilliant scientist and a good citizen of this institution. She's also a role model for women scientists, as a leader in her field who is raising two children."

### No magic secrets

Piwnica-Worms doesn't have any magic secrets, however. "Sometimes you barely manage," she said. "But our children are the primary focus of our lives. When they need us, we're there."

She believes that her flexible schedule is one advantage of a scientific career — it allows her to attend school plays and athletic events. Both of her children are active, and a weekend can include as many as five sporting events. William, 10, already has planned his career. He says he's going to be a major-league pitcher who can hit, too. Katie, 13, with notable verbal and people skills, is much more outgoing than Piwnica-Worms at that age, when her favorite place was her basement schoolroom.

That solitary childhood practice continues to pay off for Piwnica-Worms, though, who teaches in a cell biology and ethics course. Research remains her primary focus. "There's an explosion now in our understanding of what genes become mutated and how cells are derailed into cancer," she said. "In the future, we should be able to develop therapies that are specific to the genetic profiles of different types of cancer. It's a wonderful endeavor to be participating in."

### Helen Piwnica-Worms Ph.D.

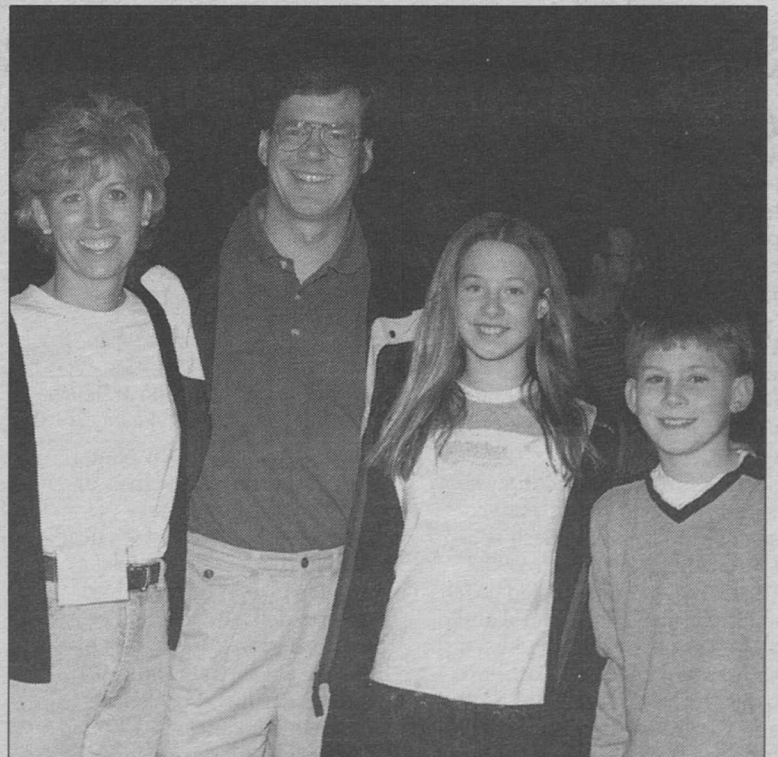
**Born** Troy, New York

**Education** B.A., 1979, St. Olaf College; Ph.D., 1984, Duke University

**University Position** Professor of cell biology and physiology

**Honors** Investigator, Howard Hughes Medical Institute; Pew Scholar in the Biomedical Sciences

**Family** Husband, David; daughter, Katie, 13, and son, William, 10



Helen Piwnica-Worms pauses for a family picture with her husband, David; daughter, Katie; and son, William.