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Record



Washington University in St. Louis

Sept. 3, 2009

record.wustl.edu

Scholarship campaign to start 'Opening Doors to the Future'

Washington University's Board of Trustees has authorized a fundraising initiative designed to increase support for student scholarships.

"Opening Doors to the Future: The Scholarship Initiative for Washington University" has a goal of raising \$150 million to support scholarships and fellowships. A formal kickoff for the initiative will take place Nov. 7, and the effort will continue through June 30, 2014.

In establishing the scholarship initiative, the board noted that Washington University must continue to recruit a diverse student body with the highest abilities, demonstrated accomplishments and exemplary character while making every effort to meet each student's financial need.

"Washington University students are among the most talented young men and women in the world," Chancellor Mark S. Wrighton said. "They come from many different ethnic, geographic, economic and social backgrounds, and they bring with them the diverse life experiences that contribute to making the educational experience on this campus so rich and meaningful.

"Our scholarship initiative will help to ensure that no deserving student ever has to turn down the opportunity for a Washington University education because he or she doesn't have the resources to afford it," Wrighton said.

"Scholarships transform lives — not only for students but for society," said Robert L.

Virgil, Ph.D., executive chair of the scholarship initiative. Virgil is a trustee of the University, former dean of the Olin Business School and retired partner in the St. Louis-based investment firm of Edward Jones.

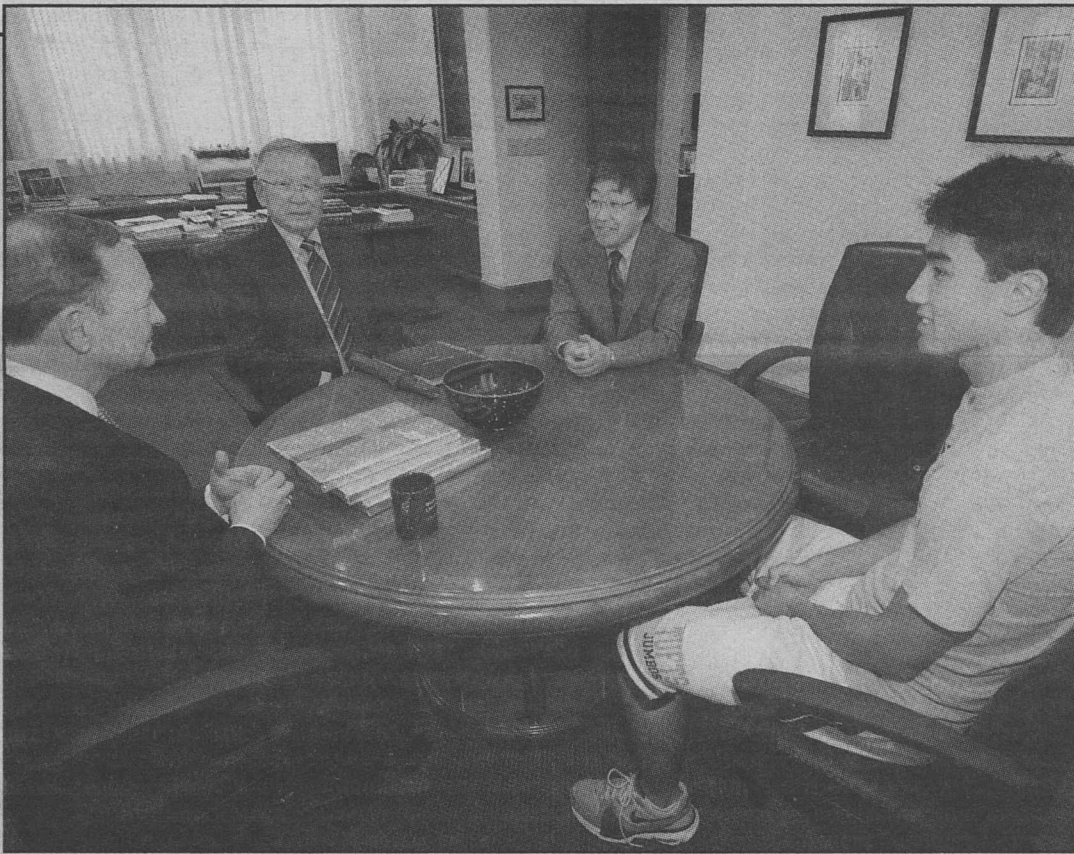
"Washington University is a place where outstanding students prepare to become leaders in medicine, law, government, scientific research, education, public policy, business and the arts," Virgil said. "Many deserving students just need an opportunity to turn their extraordinary potential into achievement. Their future is our future — and a scholarship is an investment that benefits us all for years to come."

"Opening Doors to the Future" will help create more scholarships for both undergraduate and graduate students. The

initiative will encourage contributions of both endowed and expendable scholarship funds. In addition, it will promote support for stipends and financial aid for students pursuing internships, summer research opportunities and study-abroad programs.

Today, more than half of WUSTL's undergraduate students receive some kind of financial assistance, which may include grants, loans and work-study. Almost 22 percent of those students qualified for assistance totaling more than the cost of tuition. Graduate and professional students also receive substantial financial aid, including, for example: 82 percent of law students, 89 percent of medical students and 92 percent of social work students.

See **Future**, Page 2



Three generations Chancellor Mark S. Wrighton visits in his office Aug. 21 with Yoshio "Matt" Matsumoto (second from left), Yoshio's son Joseph and his grandson, Andrew, a freshman. Yoshio graduated from WUSTL with an engineering degree in 1944. He was sponsored by the University to leave a Japanese internment camp to attend classes and had not been back to St. Louis since earning a WUSTL degree. He returned for a visit when Andrew started school this fall. As part of the Freshman Reading Program, all freshmen read Julie Otsuka's "When the Emperor Was Divine," a novel dealing with a family in a Japanese internment camp in Utah in the early 1940s.

Each One Teach One extends to KIPP school

By NEIL SCHOENHERR

Each One Teach One (EOTO), the University's signature tutoring initiative that connects WUSTL tutors with area elementary and high-school students, has launched a new program, EOTO: KIPP.

The program will partner with the KIPP (Knowledge is Power Program) Inspire Academy, a new charter school for underresourced youth located in south St. Louis. The University announced in early 2008 that it would serve as institutional sponsor of the St. Louis area's first-ever KIPP charter school. The school opened its doors for the first time this fall.

KIPP, a network of free, college-preparatory public schools in underresourced communities throughout the United States, has been recognized for its success in putting students on the path to college — nearly 80 percent of

KIPP alumni have matriculated to college.

Like all Missouri charter schools, the KIPP school is a public school, open to any student who lives in the City of St. Louis.

Currently, more than 14,000 students are enrolled in 57 KIPP schools located in 17 states and Washington, D.C. More than 80 percent of KIPP students nationwide are low-income, and more than 90 percent are African-American or Hispanic. To learn more about KIPP schools, visit KIPP.org.

The KIPP sponsorship is one of many of the University's efforts to positively impact schools and children in the St. Louis area.

One of those is Each One Teach One. Founded in 2000 and coordinated by the Community Service Office, the program supports more than 180 WUSTL tutors through four programs: EOTO: Jump Start; EOTO:

College Bound; EOTO: AP Prep; and EOTO: KIPP.

Tutors select one day a week and a grade level with which they would like to work. EOTO provides orientation, training and transportation. Tutors are expected to make a three-hour weekly commitment for a minimum of one semester.

"While Each One Teach One started with mainly undergraduate interest and support, these programs are open to anyone," said Stephanie Kurtzman, director of the Community Service Office and associate director of the Richard A. Gephardt Institute for Public Service. "Graduate and professional students, staff and faculty are also welcome and encouraged to volunteer as tutors. Tutoring is a great way to make a positive impact in the community and mentor some wonderful young students."

See **Tutors**, Page 2

Bee venom harnessed to kill tumors in mice

By GWEN ERICSON

When bees sting, they pump poison into their victims. Now the toxin in bee venom has been harnessed to kill tumor cells by School of Medicine researchers, who attached the major component of bee venom to nano-sized spheres that they call nanobees.

In mice, nanobees delivered the bee toxin melittin to tumors while protecting other tissues from the toxin's destructive power. The tumors in the mice stopped growing or shrank. The nanobees' effectiveness against cancer in the mice was reported online Aug. 10 in the *Journal of Clinical Investigation*.

"The nanobees fly in, land on the surface of cells and deposit their cargo of melittin, which rapidly merges with the target cells," said co-author Samuel Wickline, M.D., professor of medicine and principal investigator of the Siteman Center of Cancer Nanotechnology Excellence.

"We've shown that the bee toxin gets taken into the cells, where it pokes holes in their internal structures."

Melittin is a small protein, or peptide, that is strongly attracted to cell membranes, where it can form pores that break up cells and kill them.

"Melittin has been of interest to researchers because in high enough concentration it can destroy any cell it comes into contact with, making it an effective antibacterial and antifungal agent and potentially an anticancer agent," said co-author Paul Schlesinger, M.D., Ph.D., associate professor of cell biology and physiology.

"Cancer cells can adapt and develop resistance to many anticancer agents that alter gene function or target a cell's DNA, but it is hard for cells to find a way around the

mechanism that melittin uses to kill."

The scientists tested nanobees in two kinds of mice with cancerous tumors. One mouse breed was implanted with human breast cancer cells and the other with melanoma tumors. After four to five injections of the melittin-carrying nanoparticles over several days, growth of the mice's breast cancer tumors slowed by nearly 25 percent, and the size of the mice's melanoma tumors decreased by 88 percent compared with untreated tumors.

The researchers indicate that the nanobees gathered in these solid tumors because tumors often have leaky blood vessels and tend to retain material. Scientists call this the enhanced permeability and retention effect of tumors, and it explains how certain drugs concentrate in tumor tissue much more than they do in normal tissues.

But the researchers also developed a more specific

method for making sure nanobees go to tumors and not healthy tissue by loading the nanobees with additional components. When they added a targeting agent that was attracted to growing blood vessels around tumors, the nanobees were guided to precancerous skin lesions that were rapidly increasing their blood supply. Injections of targeted nanobees reduced the extent of proliferation of precancerous skin cells in the mice by 80 percent.

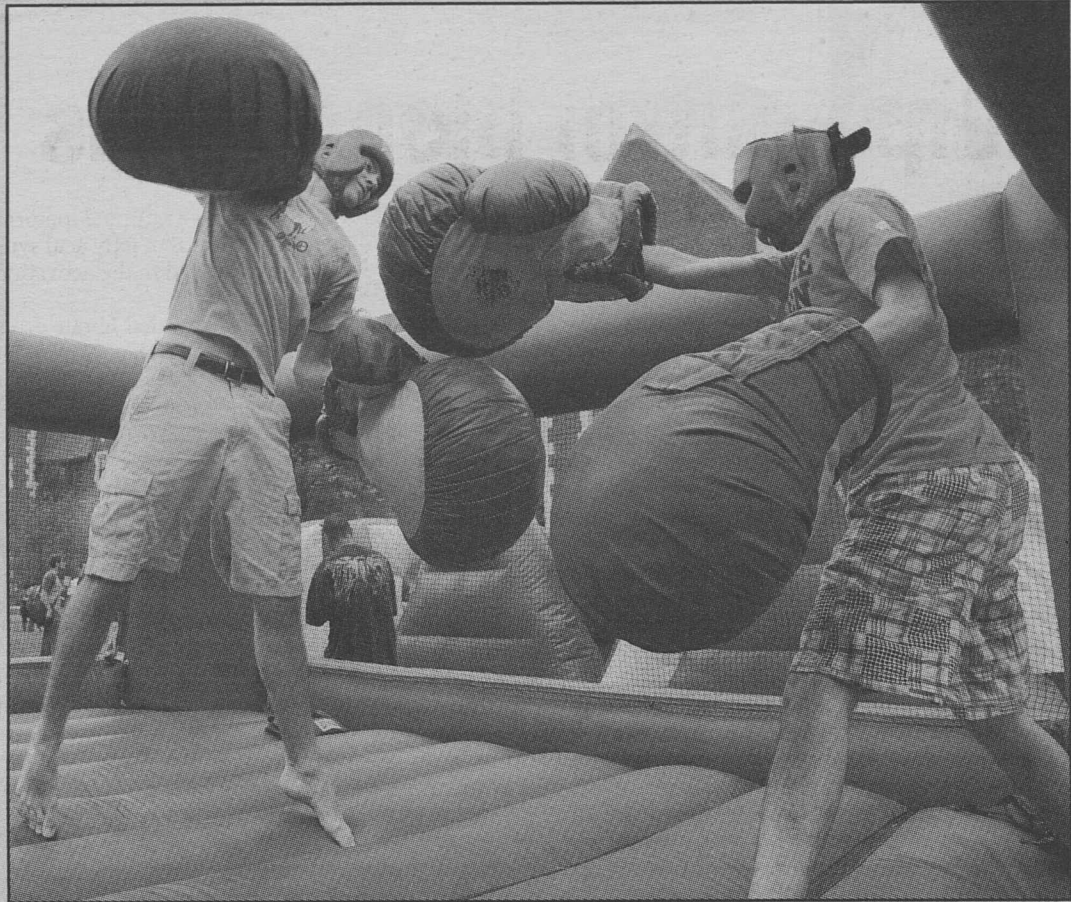
Overall, the results suggest that nanobees could not only lessen the growth and size of established cancerous tumors but also act at early stages to prevent cancer from developing.

"Nanobees are an effective way

See **Venom**, Page 2



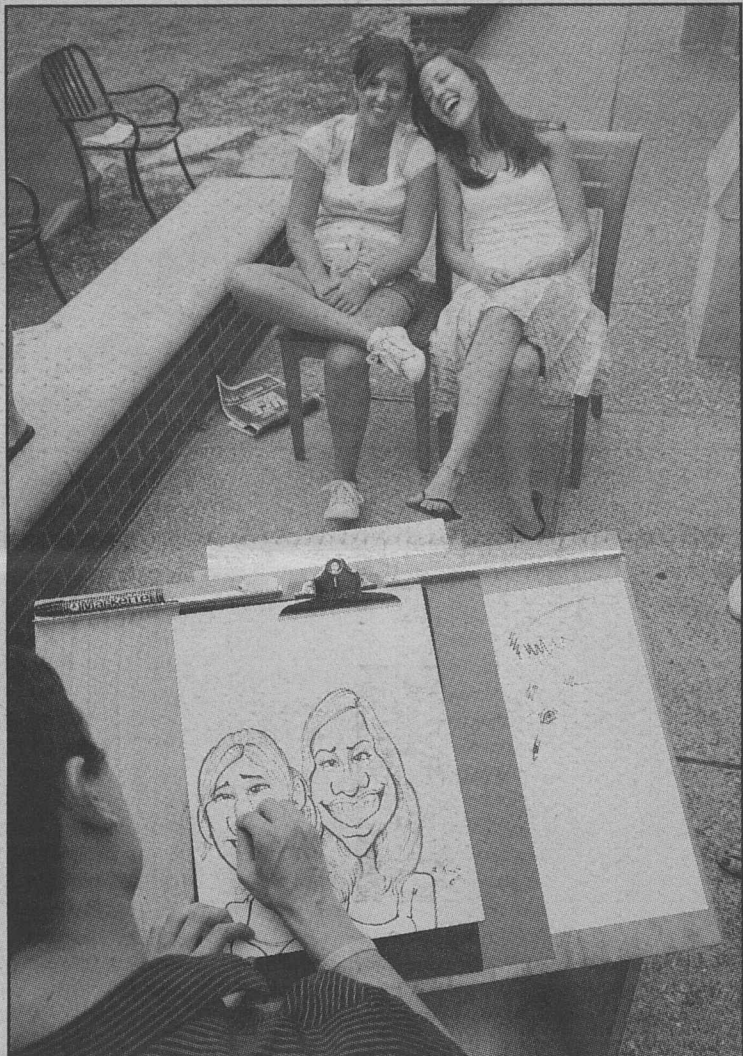
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A knockout day

Above: Senior Michael Fahey (left) and sophomore Dave Lee box each other during the annual First Friday on the Village Green Aug. 28. First Friday is a celebration held annually marking the first Friday of classes. This year, events included inflatable games, portrait drawing, ice cream, a T-shirt flea market, giveaways, a dance party and performances by a comedian and an improv rap group.

Right: Juniors Michele Brush (left) and Molly Stovel pose for a caricature drawn by artist Zachary Ford.



WHITNEY CURTIS PHOTOS

Future

McDonnell Challenge crucial part of campaign
— from Page 1

Last year, undergraduate students were awarded approximately \$66 million in financial assistance. Income from the University's endowment provided only 17.6 percent of that amount, and the rest came from expendable gifts and other University resources.

More than 1,300 endowed scholarship and fellowship funds already have been established, but many more are needed to enable the University to continue to recruit talented students from a wide range of backgrounds.

A significant aspect of the scholarship initiative is a \$2 million challenge grant, intended to encourage new and increased annual scholarships for undergraduate and graduate students from alumni, parents and friends.

It was established by John F. McDonnell, former chairman and now vice chairman of the

Board of Trustees and retired chairman of the board of McDonnell Douglas Corp.

"Washington University students all share extraordinary potential to make a difference in the world, and I am happy to support their efforts," McDonnell said.

"Among them are the men and women who will go on to become leaders in society, who will found and manage organizations, find cures for diseases, fill important government posts in this country and abroad, author the next Pulitzer Prize-winning novel, design the next architectural monument.

"What a loss it would be, and how sad it would be that we, who could have helped, didn't," McDonnell said.

The McDonnell Challenge encourages donors to establish new annual scholarships or to increase their current annual scholarship gifts. A minimum gift of \$5,000 will establish a named annual scholarship.

Gifts of more than \$5,000 can provide support to students who may have needs that range from \$5,000 to full tuition, room and board and other expenses; these

gifts can also support multiple students. To qualify for the match, a gift must meet certain criteria, which are available from the Office of Alumni and Development Programs.

The challenge will continue until June 30, 2014, or until all of the matching funds have been expended.

Wrighton is optimistic that the University's supporters will rise to the McDonnell Challenge and recognize the value of investing in students and their future contributions to society.

"As William Greenleaf Eliot said more than 150 years ago, our University is 'a great work, capable of indefinite extension.' Indeed, we will always continue to advance and build on our extraordinary record of excellence in teaching, research and service to society, and we will continue to attract the best students.

"However, these commitments come with a heavy price," Wrighton said. "We must turn to our generous and supportive friends and alumni, who recognize that an investment in Washington University is an investment in the future."

Venom

Melittin easily and cheaply produced
— from Page 1

to package the useful but potentially deadly melittin, sequestering it so that it neither harms normal cells nor gets degraded before it reaches its target," Schlesinger said.

If a significant amount of melittin were injected directly into the bloodstream, widespread destruction of red blood cells would result. The researchers showed that nanoparticles protected the mice's red cells and other tissues from the toxic effects of melittin. Nanobees injected into the bloodstream did not harm the mice. They had normal blood counts, and tests for the presence of blood-borne enzymes indicative of organ damage were negative.

When secured to the nanobees, melittin is safe from protein-destroying enzymes that the body produces. Although unattached melittin was cleared from the mice's circulation within minutes, half of the melittin on nanobees was still circulating 200 minutes later.

Schlesinger indicated that is long enough for the nanobees to circulate through the mice's bloodstream 200 times, giving them ample time to locate tumors.

"Melittin is a workhorse," said Wickline, also professor of physics in Arts & Sciences, of biomedical engineering and of cell biology and physiology. "It's very stable on the nanoparticles, and

it's easily and cheaply produced.

"We are now using a nontoxic part of the melittin molecule to hook other drugs, targeting agents or imaging compounds onto nanoparticles," Wickline said.

The flexibility of nanobees and other nanoparticles made by the group suggests they could be readily adapted to fit medical situations as needed. The ability to attach imaging agents to nanoparticles means that the nanoparticles can give a visible indication of how much medication gets to tumors and how tumors respond.

"Potentially, these could be formulated for a particular patient," Schlesinger said. "We are learning more and more about tumor biology, and that knowledge could soon allow us to create nanoparticles targeted for specific tumors using the nanobee approach."

Tutors

Teach, mentor young students
— from Page 1

The Community Service Office is recruiting tutors for positions this year in all four areas of Each One Teach One. Information sessions will be held at 7 p.m. Thursday, Sept. 3, in Room 276 of the Danforth University Center; at noon Tuesday, Sept. 8, in Room 233; and at 6 p.m. Wednesday, Sept. 9, in the Mudd House multipurpose room. The earliest application deadline is Sept. 9.

For more information, visit communityservice.wustl.edu/eoto.

Campus Watch

The following incidents were reported to University Police Aug. 25-31. Readers with information that could assist in investigating these incidents are urged to call 935-5555. This information is provided as a public service to promote safety awareness and is available on the University Police Web site at police.wustl.edu.

Aug. 25

10:20 a.m. — A bicycle was reported stolen from a bike rack outside Park House.

Aug. 26

7:48 p.m. — A bicycle was reported stolen from a bike rack between the Women's Building and Laboratory Sciences Building.

Aug. 27

8:32 a.m. — The vending machine in Tietjens Hall was reported unsecured with approximately \$30 in items missing.

8:32 a.m. — A bicycle was

reported stolen from a bike rack outside Park House.

Aug. 28

1:57 p.m. — A staff member reported that her vehicle was entered and radar detector stolen.

3:31 p.m. — Two trucks were damaged and items were taken from the trucks in the parking lot near Whitaker Hall.

Additionally, University police responded to five accidental injuries, two reports of property damage, two reports of trespassing, two sick cases, one report of recovered stolen property and one report of stalking.

Record

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 Washington University in St. Louis

School of Medicine Update

Food additive may help control blood lipids

BY JIM DRYDEN

School of Medicine scientists have identified a substance in the liver that helps process fat and glucose. That substance is a component of the common food additive lecithin, and researchers speculate it may one day be possible to use lecithin products to control blood lipids and reduce risk for diabetes, hypertension or cardiovascular disease using treatments delivered in food rather than medication.

"Doctors use drugs called fibrates to treat problems with cholesterol and triglycerides," said the study's co-first author Irfan J. Lodhi, Ph.D., a postdoctoral fellow in endocrinology and metabolism. "By identifying this substance that occurs naturally in the body — and also happens to be used as a food additive — it may be possible to improve the treatment of lipid disorders and minimize drug side effects by adding particular varieties of lecithin to food."

Lecithin is found at high concentrations in egg whites and also in soybeans,

grains, fish, legumes, yeast and peanuts. Most commercially used lecithin comes from soybeans. Lecithin can alter food taste and texture and also can be mixed with water to disperse fats, making it a common additive in margarine, mayonnaise, chocolate and baked goods. Lecithin is a mixture of fatty compounds called phosphatidylcholines. Various types of phosphatidylcholines house different kinds of fatty molecules linked to a common core.

The study demonstrates that in the liver, a specific type of lecithin binds with a protein called PPAR-alpha, allowing PPAR-alpha to regulate fat metabolism. Scientists long have known that PPAR-alpha is involved in lipid and glucose metabolism. When doctors prescribe fibrate drugs to lower triglycerides and elevate good cholesterol in the blood, those drugs work by activating PPAR-alpha.

Although fibrates activate the protein, no one previously had identified any naturally occurring substance that could perform that task. In the Aug. 7 issue of *Cell*,

the research team described how it found the link between lecithin and PPAR-alpha.

They first created a strain of mice that could not make fatty acid synthase in the liver. When humans or animals eat, they take in sugars. Fatty acid synthase converts those sugars to fatty acids in the liver, where they play important roles in energy metabolism.



Semenkovich

"To our surprise, animals missing fatty acid synthase in the liver were just like animals that couldn't make PPAR-alpha," said senior investigator Clay F. Semenkovich, M.D., the Herbert S. Gasser Professor and chief of the Division of Endocrinology, Metabolism and Lipid Research. "They had lower fasting insulin levels, and they were prone to develop fatty liver disease. When we gave the animals fibrate drugs that activated

PPAR-alpha, the mice returned to normal, leading us to suspect that fatty acid synthase also was involved in the activation of PPAR-alpha.

"Although we knew that fibrate drugs would regulate PPAR-alpha, we also knew that our ability to regulate the metabolism of fats and sugars was in place long before humans started making drugs," Semenkovich said. "But until now, no one had identified how it worked."

Semenkovich, Lodhi, John Turk, M.D., Ph.D., professor of medicine and of pathology, and the team used mass spectrometry and gene expression studies to isolate the phosphatidylcholine, or lecithin compound, that activated PPAR-alpha in the liver.

It's fortunate, Semenkovich said, that an extremely common compound like lecithin binds to a key drug target like PPAR-alpha.

"That information could be used to make better drugs or even to develop what people sometimes refer to as nutraceuticals — nutrients that have pharmaceutical-like properties," Semenkovich said.

Warner receives professorship named for WUSTL's first female surgeon

BY BETH MILLER

Brad W. Warner, M.D., professor of surgery and of pediatrics and pediatric surgeon-in-chief at St. Louis Children's Hospital, has been named the Jessie L. Ternberg, M.D., Ph.D., Distinguished Professor in Pediatric Surgery.

Ternberg is professor emerita of surgery and of surgery in pediatrics. A nationally recognized pediatric surgeon, she was the first woman surgical resident and first woman chief resident in surgery at Barnes Hospital, the first female surgeon on the School of Medicine's full-time faculty and the first woman elected to head the school's faculty council.

Warner was installed by Chancellor Mark S. Wrighton and Larry J. Shapiro, M.D., executive vice chancellor for medical affairs and dean of the School of Medicine.

"During her nearly 40-year career, Jessie Ternberg was an extraordinary pioneer in pediatric surgery, showing great care and dedication to her many young patients," Wrighton said.

"Dr. Warner's dedication to pediatric surgery, patient care and research makes him an excellent choice to carry on the legacy of Dr. Ternberg through this professorship," Wrighton said.

"As Ternberg did during her tenure at the School of Medicine, Warner searches for solutions to short bowel syndrome, a painful disorder that can cause malnutrition," Shapiro said. "We are pleased that Dr. Warner will continue with this outstanding work. Dr. Ternberg has trained generations of pediatric surgeons and pediatricians (including me), and it is gratifying to see her enduring contribution to the field recognized in this way."

More than 50 of Ternberg's friends and admirers, including Walter F. Ballinger, M.D., and Mary Randolph Ballinger; Chancellor Emeritus William H. Danforth, M.D.; Thomas E. and Carolyn Gallagher; Richard Karl, M.D.; and Kathy Karl; Edward S. Lewis, M.D.; RB and Peggy Lewis; the Mabel Dorn Reeder Foundation; St. Louis Children's Hospital; and Virginia Weldon, M.D., funded the professorship.

In 1949, Ternberg and Robert Eakin, Ph.D., reported their discovery of the mechanism by which vitamin B12 is absorbed in

the intestine. In 1953, Ternberg earned a medical degree from the School of Medicine. Following residency training at Barnes Hospital, Ternberg joined the School of Medicine faculty in 1959 as an instructor of surgery. She rose through the ranks to become professor of surgery.

She organized the Division of Pediatric Surgery in the Department of Surgery, and in 1975 was acknowledged also as professor of surgery in pediatrics.

A St. Louis native, Warner joined the School of Medicine faculty and St. Louis Children's Hospital in 2007 after 25 years at Cincinnati Children's Hospital Medical Center and the University of Cincinnati College of Medicine. He is widely regarded for his

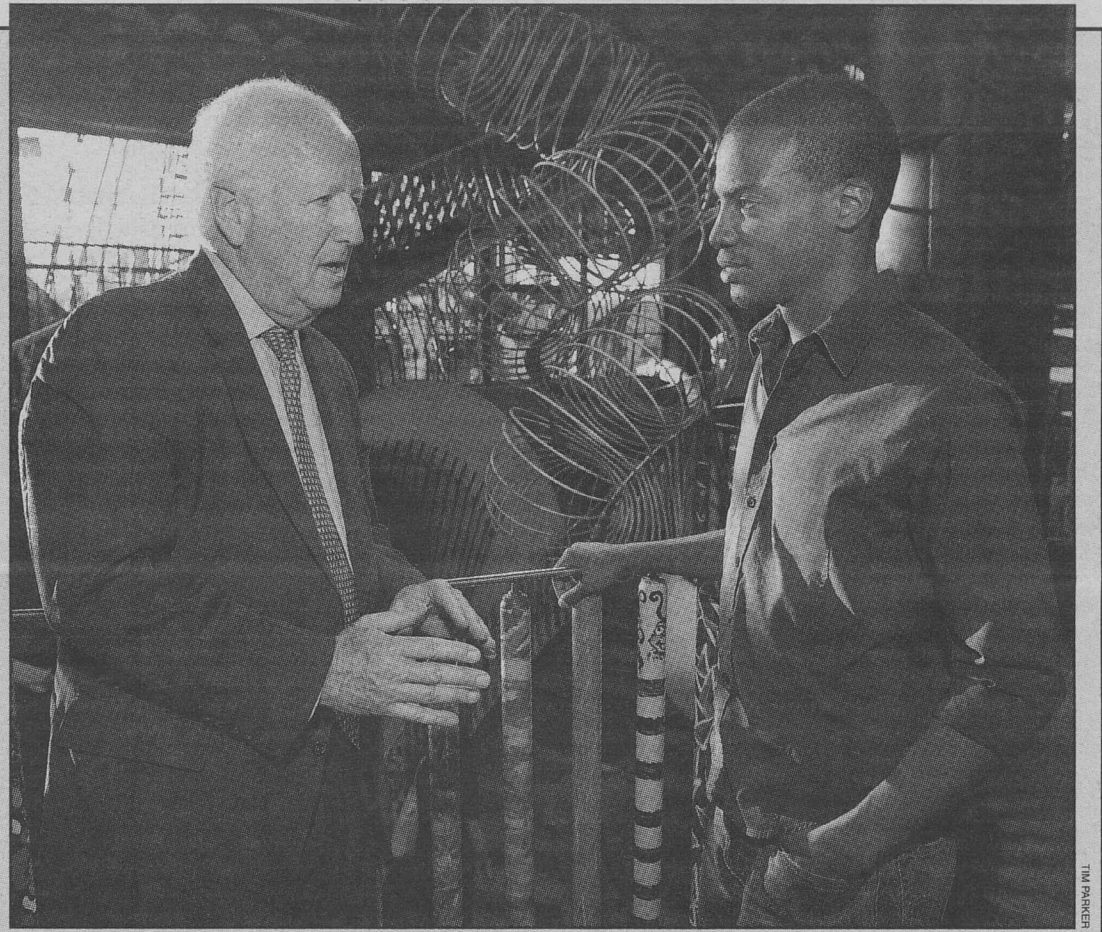
clinical expertise in pediatric cancer surgery and surgical procedures for short bowel syndrome and inflammatory bowel disease, such as ulcerative colitis and Crohn's disease. His research has been funded by the National Institutes of Health, and he has trained more than 30 postdoctoral fellows.

"Dr. Warner has been a transformative agent at the School of Medicine and St. Louis Children's Hospital," says Timothy J. Eberlein, M.D., the Bixby Professor and chairman of the Department of Surgery, the Spencer T. and Ann W. Olin Distinguished Professor, director of the Siteman Cancer Center and surgeon-in-chief at Barnes-Jewish Hospital. "He is a superb role model and educator and has been able to build a superb team in a very short period of time."

"In sum, he has helped our institutions realize their goals of providing the very best health care to children in our region," Eberlein said.



Warner



A warm welcome Larry J. Shapiro, M.D., executive vice chancellor and dean of the School of Medicine, talks with first-year medical student Raymond Jean at the Dean's Welcoming Party Aug. 20 in the City Museum Vault Room. The 124 students in the Class of 2013 enjoyed the museum's unique attractions and decor at the party.

\$10 million grant awarded for Alzheimer's studies

BY MICHAEL C. PURDY

School of Medicine Alzheimer's disease researchers have won renewal of a grant from the National Institute on Aging (NIA) to study the differences between people who remain mentally spry in the golden years of life and those who develop dementia.

The NIA will provide the Alzheimer's Disease Research Center (ADRC) at Washington University with nearly \$10 million over the next five years. The grant was first awarded to the University in 1984 and has received continu-

ous funding since.

Principal investigator John C. Morris, M.D., the Harvey A. and Dorismae Hacker Friedman Distinguished Professor of Neurology and director of the ADRC, said studies funded by the renewed grant focus on the development of Alzheimer's disease in the brain prior to the onset of dementia.

"Given the amount of damage Alzheimer's inflicts in the brain before clinical symptoms, detecting this damage and understanding how it occurs are absolutely essential steps toward successful

treatments," Morris said.

Studies funded by the grant will:

- Examine potential links between stroke and amyloid beta, the main ingredient of the plaques found in the brain of Alzheimer's patients.

- Search for and evaluate brain imaging agents and cerebrospinal fluid biomarkers that may allow preclinical diagnosis of Alzheimer's disease.

- Identify genetic factors that may influence Alzheimer's disease risk through analysis of cerebrospinal fluid samples.

- Determine whether Alzheimer's disease has clinically discernible effects on attention prior to the onset of dementia.

The ADRC is the only Alzheimer's center to have two program project grants from the NIA for Alzheimer's research.

"It's an honor to receive this grant because the reviewers look not only at what our team plans to do in the next five years but also at what we've achieved in the past," Morris said. "Our successful renewal is a testament to the high quality of our investigators and their work."

Cancer research grant applications due Oct. 30

Applications are due Oct. 30 for awards from the University's American Cancer Society Institutional Research Grant (ACS-IRG).

The program, which provides seed money for new projects initiated by junior faculty, provides one-year awards of up to \$30,000.

Eligibility is limited to instructors and assistant

professors who are within six years of their first independent research or faculty appointment.

Individuals who have previously received ACS-IRG awards or major grants, such as R01, R03 or R21 grants, from the National Institutes of Health, the National Science Foundation, the American Cancer Society or the Department of Veterans Affairs are not eligible.

Applicants must be U.S. citizens, non-citizen nationals or have proof of permanent residency at the time of application.

For more information and for further application requirements, visit siteman.wustl.edu/internal.aspx?id=1302 or contact Kyle Neeley at neeleky@ccadmin.wustl.edu or Lee Ratner, M.D., Ph.D., committee chair, at lratner@im.wustl.edu.

University Events

WUSTL hosts conference blending art, architecture in November

By LIAM OTTEN

World-renowned artist and computer scientist John Maeda will serve as opening speaker for "Economies: Art + Architecture," the first joint conference of the Association of Collegiate Schools of Architecture (ACSA) and the National Council of Art Administrators (NCAA).

The conference is being hosted by the Sam Fox School of Design & Visual Arts and takes place Nov. 4-7.

"Bringing top academic leaders to St. Louis for Economies: Art + Architecture is indeed a terrific honor," said Carmon Colangelo, dean of the Sam Fox School of Design & Visual Arts and the E. Desmond Lee Professor for Collaboration in the Arts.

"This will promote camaraderie and collaboration between architects, designers, educators and visual artists from across North America while also facilitating a unique exchange of ideas about creative entrepreneurship and leadership," Colangelo said. "Hopefully, it will serve as an important catalyst for interdisciplinary discussions within and between the professions."

Colangelo is co-chairing the conference with Peter MacKeith, associate dean of the Sam Fox School of Design & Visual Arts and associate professor of architecture.

"The conference aligns precisely with the mission of the Sam Fox School in its emphasis on collaboration, social and environmental responsibility and the interdisciplinary relationship between architecture, design and art," MacKeith said. "In effect, a creative 'economy of means' may well be the most productive and necessary emphasis across our disciplines in meeting the challenges of the near future."

The conference will open at 5:30 p.m. Nov. 4 in Graham



A drawing from "Human," a series of 24 scribbled personas by John Maeda. The artist will be the keynote speaker for the Economies: Art + Architecture conference Nov. 4-7.

Chapel with Maeda's keynote address, "Creative Leadership." Co-sponsored by the Assembly Series, the lecture is free and open to the public.

Maeda was named one of the 75 most influential people of the 21st century by Esquire magazine and has worked for more than a decade to integrate technology, education and the visual arts, redefining the use of electronic media as a tool for creative expression.

Combining skilled computer programming with sensitivity to traditional artistic concerns, Maeda's work helped develop the interactive motion graphics that are prevalent on the Internet today.

Now president of the Rhode Island School of Design, Maeda remains a pioneering voice for "simplicity" in the digital age, championing the use of the computer for people of all ages and skill levels.

His work can be found in the

permanent collections of the Museum of Modern Art, the San Francisco Museum of Modern Art and the Cartier Foundation in Paris, among others.

Skandalaris Awards

In conjunction with the conference, the Sam Fox School and the Skandalaris Center for Entrepreneurial Studies are collaborating to present three Skandalaris Awards in art and design.

The Skandalaris Award for Excellence in Art + Architecture recognizes an artist, architect or designer whose individual or collaborative works, projects or research have had profound and lasting impacts on society, culture or the environment.

Receiving the award will be Rick Lowe, founder of Project Row Houses in Houston, a large-scale development founded on the principle that art can be the basis for revitalizing depressed inner-city neighborhoods.

Lowe founded Project Row

Houses in 1993 in one of Houston's oldest African-American neighborhoods.

What began as 22 shotgun-style houses on one block has grown to six blocks encompassing 12 artist exhibition and/or residency spaces, seven transitional houses for young mothers, office spaces, a community gallery, a park and low-income residential and commercial spaces.

Lowe also is a co-founder of the Watts House Project in Watts, Calif., a similar large-scale art-work-as-urban development, and is active on the National Resource Team for Transforma Projects, a collective of artists and creative professionals formed in New Orleans after Hurricane Katrina.

Two Skandalaris Awards for Entrepreneurship in Design & Visual Arts will honor individuals who have demonstrated leadership and entrepreneurship in architecture, design and the visual arts, particularly through community-based and/or sustainable practices.

Receiving the awards will be Anna Rubbo, founder of the interdisciplinary Global Studio, which engages design students in participatory action research and community development; and John Bielenberg, founder of Project M, an intensive immersion program that encourages designers, writers, filmmakers and photographers to use their work to engage communities around the country and the world.

Rubbo, an associate professor of architecture at the University of Sydney, launched Global Studio in 2005 to meet the challenges of global poverty and sustainable urbanization.

Working in collaboration with township communities, non-governmental organizations and local universities and governments, the studio seeks to enable community-based economic

development through design and the arts.

To date, Global Studio has provided intensive programs and associated conferences in Istanbul, Vancouver and Johannesburg. Over the past two years, it has worked in Diepsloot, a settlement in Johannesburg, South Africa, to improve housing, develop community arts programs and foster local knowledge and cultural capital.

Bielenberg began Project M, now based in Greensboro, Ala., in 2003. Built around a creative exercise called "Thinking Wrong," Project M encourages participants to challenge the status quo by re-examining design assumptions.

Known for its traveling "expeditions," the group has delivered equipment and supplies to Gulf Coast designers displaced by Hurricane Katrina and left its mark in Ghana through work with The Women's Trust micro-financing organization.

Another project converted a used ambulance into a rolling design studio, while their book "This is Not Grass" raised money to build parks in East Baltimore.

Each award carries a \$20,000 honorarium, which may be used to help support new or ongoing projects and/or creative research. All three recipients will participate in a variety of presentations and discussions.

Subsequent conference sessions (for which registration is required) will take place at the Chase Park Plaza Hotel and will explore sustainability issues, the role of emerging technologies, new degree programs and other topics.

For a full schedule or to register, visit acsa-arch.org or ncaaarts.org.

For more information about Maeda's talk, visit assemblyseries.wustl.edu.

Mycobacteria • Addiction in the Human Brain • Solar Cells

"University Events" lists a portion of the activities taking place Sept. 3-16 at Washington University. Visit the Web for expanded calendars for the Danforth Campus (news-info.wustl.edu/calendars) and the School of Medicine (medschool.wustl.edu/calendars.html).

Exhibits

"Changing the Face of Medicine: Celebrating America's Women Physicians." Through Sept. 18. Bernard Becker Medical Library. 362-7080.

"Double Exposure: Al Parker's Illustrations, From Model to Magazine." Through Sept. 30. Olin Library, Lvl. 1, Grand Staircase Lobby and Ginkgo Rm. 935-7741.

"Edward and Joshua Geltman: A Photographic Journey." Through Sept. 20. Farrell Learning & Teaching Center, Hearsh Gallery. 747-3284.

Lectures

Thursday, Sept. 3

8 a.m. **Siteman Cancer Center Lecture.** Rena Schechter Memorial Lecture. "Clinical and Translational Studies in Head and Neck Cancer at the University of Chicago." Everett E. Vokes, prof. of medicine, The

U. of Chicago Medical Center. Clopton Aud., 4950 Children's Place. 454-8981.

4 p.m. **Chemistry Seminar.** "Environmentally Friendly Organic Synthesis Using Bismuth (III) Compounds." Ram Mohan, prof. of chemistry, Ill. Wesleyan U. McMillen Lab., Rm. 311. 935-6530.

4:15 p.m. **Earth & Planetary Sciences Colloquium.** "Sedimentary Dynamics and the Cycling of C, Fe, and S in Tropical Deltaic Systems." Robert Aller, prof. of marine biogeochemistry, Stony Brook U. Earth & Planetary Sciences Bldg., Rm. 203. 935-5610.

4:30 p.m. **School of Medicine Panel Discussion.** "Women's Careers in Medicine." Kenton King Ctr., Bernard Becker Medical Library. (Refreshments served.) 362-7080.

Tuesday, Sept. 8

5:30 p.m. **Biochemistry & Molecular Biophysics Biophysical Evenings Seminar.** "Glutamate Dehydrogenase; Structure, Evolution, Regulation and Role in Insulin Homeostasis." Tom Smith, principal investigator, Donald Danforth Plant Science Center. Cori Aud., 4565 McKinley Ave. 362-4152.

Wednesday, Sept. 9

Noon. **Siteman Cancer Center Prevention & Control Seminar Series.** "Diffusion of Innovations in Cancer Care." James Dearing, senior scientist, Kaiser Permanente Inst. for Health Research. Goldfarb Hall, Rm. 132. 454-8981.

4 p.m. **Biochemistry & Molecular Biophysics Seminar.** "A Synthetic Protein With a Novel Topology Yet to be Discovered in Nature." Stephen B.H. Kent, prof. of biochemistry & molecular biology, The U. of Chicago. McDonnell Medical Sciences Bldg., Rm. 264. 362-4152.

4 p.m. **University Libraries Program.** "The Women of Gee's Bend." Talk and performance by quilters from Gee's Bend.

January Hall, Rm. 110. 935-5418.

7 p.m. **Assembly Series.** "Existentialism, Post-modernism and Deconstructionism: Will This Be on the Test?" Harold Ramis, filmmaker. Graham Chapel. 935-5285.

Thursday, Sept. 10

Noon. **Genetics Seminar.** "Complex Traits, Entropy and Heat." Barak Alon Cohen, assoc. prof. of genetics. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

3 p.m. **Chemistry Lecture.** Annual Joseph W. Kennedy Memorial Lectures. "Imaging Addiction in the Human Brain." Joanna S. Fowler, dir., Brookhaven National Laboratory. Lab Sciences Bldg., Rm. 300. 935-6530.

3 p.m. **Siteman Cancer Center Basic Science Seminar Series.** Richard Wilson, prof. of genetics. Eric P. Newman Education Center, Seminar B. 454-7029.

4 p.m. **Institute of Medicine Regional Meeting.** "Genomics and the Future of Medicine." Speakers include Timothy Ley, prof. of medicine, and Jeffrey I. Gordon, dir., Center for Genome Sciences. (Reception follows.) Eric P. Newman Education Center. 286-0073.

4 p.m. **Vision Science Seminar Series.** "Why Do We Need Heterotrimeric G-Proteins?" Oleg Kisselev, assoc. prof. of ophthalmology, biochemistry and molecular biology, Saint Louis U. Maternity Bldg., Rm. 725. 362-3315.

4:15 p.m. **Earth & Planetary Sciences Colloquium.** "Stratigraphy, Depositional Environment and Natural Gas Production From Organic-Rich Black Shales." Langhorne Smith, curator, Reservoir Characterization Group, New York State Museum. Earth & Planetary Sciences Bldg., Rm. 203. 935-5610.

Friday, Sept. 11

11 a.m. **Chemistry Lecture.** Annual Joseph W. Kennedy Memorial Lectures. "New

Radiotracers and Applications in Human Neuroscience." Joanna S. Fowler, dir., Brookhaven National Laboratory. McMillen Lab., Rm. 311. 935-6530.

11 a.m. **Energy, Environmental and Chemical Engineering Seminar.** "Solar Cells by Design. Harvesting Light Energy With Nanostructure Assemblies." Prashant Kamat, prof. of chemical engineering, U. of Notre Dame. Lopata Hall, Rm. 101. 935-5548.

Noon. **Cell Biology & Physiology Lecture.** "XBP1, MIST1 and RAB GTPases: How Transcription Factors Establish Membrane Trafficking Machinery." Jason C. Mills, asst. prof. of pathology & immunology. McDonnell Medical Sciences Bldg., Rm. 426. 362-6950.

Saturday, Sept. 12

8 a.m.-12:30 p.m. **Critical Care CME Course.** Annual St. Louis Critical Care Update. "Advances in the Management of the Critically Ill Patient." Cost: \$85. St. Louis Marriott West, 660 Maryville Centre Dr. To register: 362-6891.

Monday, Sept. 14

3 p.m. **Siteman Cancer Center Seminar.** "The Genetic Basis of Human Neuroblastoma." John M. Maris, chief, div. of oncology, The Children's Hospital of Philadelphia. South Bldg., Rm. 3907, Philip Needleman Library. 454-8981.

4 p.m. **Immunology Research Seminar Series.** "The Earliest Events in T Cell Activation." Kai W. Wucherpfennig, cancer immunology & AIDS, Dana-Farber Cancer Inst., Harvard U. Farrell Learning & Teaching Center, Connor Aud. 362-2763.

4 p.m. **Siteman Cancer Center Breast Prevention & Control Research Seminar Series.** "Priority for Prevention of Breast Cancer Must Focus on Childhood Adolescent Lifestyle." Graham A. Colditz, prof. of surgery, Farrell Learning & Teaching Center, Holden Aud. 454-8981.

Tuesday, Sept. 15

2 p.m. **Siteman Cancer Center Prevention & Control Group Special Seminar.** "Building Life Tables for Mortality From Non-Cancer Causes — Implications of Competing Risks on Cancer Prevention." Yun-Hsin Claire Wang, asst. prof. of health policy & management, Columbia U. Farrell Learning & Teaching Center, Holden Aud. 454-8981.

3:30 p.m. **Assembly Series.** Julie Otsuka, author. Graham Chapel. 935-5285.

5 p.m. **Freedom From Smoking Class.** "Decision Process." Center for Advanced Medicine, Barnard Health and Cancer Info. Center. To register: 362-7844.

Wednesday, Sept. 16

Noon. **Mallinckrodt Institute of Radiology Lecture.** Annual G. Leland Melson Visiting Professorship and Lecture. "Novel Imaging Methods for Oncologic Treatment Response Assessment and Monitoring Angiogenesis." Dushyant Sahani, assoc. prof. of radiology, Harvard U. Scarpellino Aud., 510 S. Kingshighway Blvd. 362-2866.

4 p.m. **Biochemistry & Molecular Biophysics Seminar.** "Mechanisms of DNA Break Repair in Mycobacteria." Stewart Shuman, research prof. in molecular biology, Sloan-Kettering Inst. McDonnell Medical Sciences Bldg., Rm. 264. 362-4152.

Music

Thursday, Sept. 3

8 p.m. **Concert. Danforth University Center Chamber Music Series.** Erin Schreiber, violin, and Martin Kennedy, piano. Danforth

Green Your Office

Save extra napkins and plastic utensils from catered events to use later.

Schreiber, Kennedy in concert Sept. 3

Violinist Erin Schreiber, assistant concertmaster of the Saint Louis Symphony Orchestra, will join pianist Martin Kennedy, Ph.D., assistant professor of composition and theory in the Department of Music in Arts & Sciences, for a free concert Thursday, Sept. 3.

The performance will begin at 8 p.m. in the Formal Lounge of the Danforth University Center.

The concert will open with "Sonata in D Major, Op. 12 Nr. 1," by Ludwig van Beethoven, followed by "Cavatina," the virtuoso piece by Swiss violinist Joseph Joachim. Next up will be "Carmen Fantasie," Franz Waxman's famously difficult arrangement based on themes from the opera by Georges Bizet.

After a short intermission, Schreiber and Kennedy will perform "Sonata in G Major, Op. 27, No. 5," by Belgian composer Eugene Ysaie, followed by "Trivial Pursuits," an original work by Kennedy.

Concluding the program will be "Sonata in A Major" by Cesar Franck.

Schreiber assumed the role of assistant concertmaster in May 2008 at the age of 20.

She previously held a concertmaster fellowship at the Aspen Music Festival and has appeared in recitals throughout the United States as well as in London, Sweden and — most recently — Neuenkirchen, Germany.

As a soloist, Schreiber has appeared with the Richardson, Gateway and Alton symphony orchestras and has performed for such dignitaries as Colin Powell and former president Jimmy Carter.

A native of Elsah, Ill., Schreiber is a former member of the Saint Louis Symphony Youth Orchestra and from 2005-08 attended the Curtis Institute of Music in Philadelphia, where she studied with Pamela Frank, Joseph Silverstein and Jaime Laredo.

Her numerous awards include the prestigious Buder Foundation Music Grant, and she is a three-time recipient of the Anita Crane Music



Schreiber Kennedy

Scholarship.

Kennedy was born in England and moved to the United States as a child. He earned a doctorate in composition from The Juilliard School, where he studied with Samuel Adler and Milton Babbitt.

He also earned a master's degree in composition as well as bachelor's degrees in both composition and piano performance at Indiana University, where he studied with Don Freund, David Dzubay, Claude Baker and Sydney Hodkinson.

Kennedy's work has been performed by the Royal Philharmonic Orchestra, the American Composers Orchestra, the Bloomington Camerata Orchestra, the Polish National Chamber Orchestra of Slupsk, the Haddonfield Symphony and the Shenandoah Symphony Orchestra, among others.

He remains active as a pianist, performing both as a soloist and in collaboration with such distinguished artists as violinist Lara St. John and flutist Thomas Robertello, recording a CD with the latter, "Souvenir: Works by Faure and Kennedy."

His music is published by the Theodore Presser Co.

Kennedy's most recent works include a concerto for pianist Molly Morkoski; a string quartet for Musica Reginae; and "All Hands on Deck," a work for 10 pianos that received its world premiere at Washington University in October 2007 under the baton of Leonard Slatkin.

Current projects include a piccolo sonata and an opera based on Vladimir Nabokov's novel "Despair."

For more information, call 935-5566 or e-mail kschtulz@artsci.wustl.edu.

Jazz at Holmes series opens Sept. 10 with outdoor tribute to Woodstock

Jazz at Holmes will open its fall series of free Thursday night jazz concerts with an outdoor jazz tribute to the 40th anniversary of Woodstock.

The opening concert takes place at 8 p.m. Sept. 10 in Brookings Quadrangle and will feature a six-person jazz ensemble led by William Lenihan, director of jazz performance in the Department of Music in Arts & Sciences.

"The connections between rock music and jazz of the era of Woodstock are many, and not just that which the sonic possibilities of electric and electronic musical instruments brought to the stage," Lenihan said.

"Breaking stylistic boundaries, creating new expressions and symbols of musical thought, whether through Coltrane, Hendrix or Dylan, American popular music had freed itself from its commercial limitations, with audiences fully participating in its creation," Lenihan said. "Jazz at Holmes Series is celebrating the music in this spirit of performance."

Jazz at Holmes returns indoors the next week to its usual locale, Holmes Lounge, for a Sept. 17 concert by Fresh Heir, which performs soul-tinged music featuring trumpet and saxophone.

Next up, on Sept. 24, will be Utter Chaos, featuring baritone saxophone Andy Ament and trombonist Cody Henry. The group will perform works by jazz great Gerry Mulligan. On Oct. 1, clarinetist Scott Alberici and his group will explore music of the swing era.

Two concerts will salute trumpeter Miles Davis, who grew up across the Mississippi River just north of St. Louis in Alton, Ill. The first takes place Oct. 8, when Lenihan will lead a group of local musicians in recreating — from transcriptions he prepared — Davis' historic album "Birth of the Cool." The record helped introduce the concept of "cool jazz" and its response to the bebop of the late 1940s.

Trumpeter Danny Campbell, drummer Maurice Carnes and their group will perform modern jazz Oct. 22, followed by pianist Pta Williams Oct. 29. Saxophonist Willie Akins — the St. Louis jazz legend who frequently performed in Gaslight Square during its 1960s heyday — will appear with his quartet Nov. 5.

Jazz at Holmes fall 2009 schedule

- Sept. 10: Outdoor tribute to Woodstock
- Sept. 17: Fresh Heir
- Sept. 24: Utter Chaos
- Oct. 1: Clarinetist Scott Alberici and his group
- Oct. 8: Miles Davis tribute, "Birth of the Cool"
- Oct. 22: Trumpeter Danny Campbell, drummer Maurice Carnes and their group
- Oct. 29: Pianist Pta Williams
- Nov. 5: Saxophonist Willie Akins and his quartet
- Nov. 12: Miles Davis tribute, "In a Silent Way" and "Petit Machins"
- Dec. 3: Drummer Steve Davis, guitarist William Lenihan and friends

The second tribute to Davis will take place Nov. 12. Lenihan and ensemble will return to the late 1960s with a series of works representing the fusion style Davis pioneered on recordings such as "In a Silent Way" and "Petit Machins."

Jazz at Holmes will conclude Dec. 3 with New York-based drummer Steve Davis, who will be joined by Lenihan and friends for an evening of modern jazz. The author of six books about playing drums, Steve Davis has performed and recorded with such jazz luminaries as Bill Evans, Richie Beirach and John Pattitucci and served as visiting professor of jazz studies at the Berlin Conservatory of Music.

Jazz at Holmes sponsors include the College of Arts & Sciences, Student Union, University College and Summer School, Congress of the South 40, Office of Student Activities, the Department of Music and Michael Cannon, J.D., executive vice chancellor and general counsel.

All concerts are free and open to the public. For more information, call Sue Taylor at 862-0874 or e-mail staylor@wustl.edu.

Quilters of Gee's Bend to sing, talk about craft

By JESSICA DAUES

Several quilters from Gee's Bend, a rural Alabama community famous for its distinctive quilting style, will sing and talk about their craft for the program "The Women of Gee's Bend" at 4 p.m. Wednesday, Sept. 9, in January Hall, Room 110.

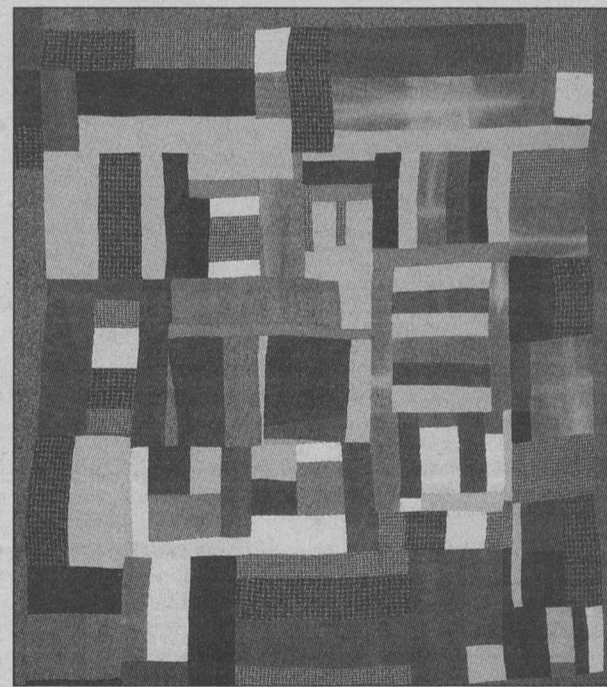
Also speaking will be Matt Arnett, curator of the Gee's Bend quilt exhibit at the Missouri History Museum, and folk artist and sculptor Lonnie Holley, also from Alabama.

The Gee's Bend quilters will perform the gospel songs traditionally sung while they create Gee's Bend quilts — quilts renowned for their vibrant color and abstract patterns. They also will discuss the artistic process behind making the quilts and the exhibition at the Missouri History Museum titled "Mary Lee Bendolph, Gee's Bend Quilts, and Beyond."

Gee's Bend, Ala., is a former cotton plantation that developed isolated from the surrounding community. Because of their isolation, the once-enslaved tenant farmers who worked at Gee's Bend developed their own distinctive local culture — including the art of creating Gee's Bend quilts.

The program is sponsored by University Libraries, the African & African American Studies Program in Arts & Sciences, and the Office of Community and Governmental Relations. For more information about "The Women of Gee's Bend," call 935-5418.

"Mary Lee Bendolph, Gee's Bend Quilts, and Beyond" is on display at the Missouri History Museum through Sept. 13.



A Gee's Bend quilt from 2002.

Follow WUSTL libraries on Twitter

Washington University Libraries is now on Twitter as "WUSTLlibraries." WUSTL Libraries twitters about topics such as books, culture, copyright and library resources.

The library also features occasional trivia contests, with the first one to reply back to a trivia question on Twitter receiving a prize.

University Center, Formal Lounge. 935-5566.

Wednesday, Sept. 9

8 p.m. Concert. Chamber Orchestra. Graham Chapel. 935-5566.

Sports

Friday, Sept. 4

5:15 p.m. Volleyball vs. Webster U. Bears Classic. Athletic Complex. 935-4705.

7:30 p.m. Volleyball vs. Millikin U. Bears Classic. Athletic Complex. 935-4705.

Saturday, Sept. 5

9 a.m. Big River Running Early Bird Meet. Men's and Women's Cross Country. Central Fields. 935-4705.

10 a.m. Volleyball vs. Hope College. Bears Classic. Athletic Complex. 935-4705.

2:30 p.m. Volleyball vs. Augustana College. Bears Classic. Athletic Complex. 935-4705.

7 p.m. Football vs. Greenville College. Francis Field. 935-4705.

Friday, Sept. 11

1:30 p.m. Women's Soccer vs. Brandeis U. Francis Field. 935-4705.

5:30 p.m. Volleyball vs. Pacific Lutheran U. WU/ASICS National Invitational. Athletic Complex. 935-4705.

7 p.m. Women's Soccer vs. Claremont-Mudd-Scripps. Washington University Classic. Francis Field. 935-4705.

8 p.m. Volleyball vs. Ohio Northern U. WU/ASICS National Invitational. Athletic Complex. 935-4705.

Saturday, Sept. 12

12:30 p.m. Volleyball vs. Concordia College. WU/ASICS National Invitational. Athletic Complex. 935-4705.

3 p.m. Volleyball vs. U. of Wis.-Whitewater. WU/ASICS National Invitational. Athletic Complex. 935-4705.

7 p.m. Women's Soccer vs. Grinnell College. Washington University Classic. Francis Field. 935-4705.

Sunday, Sept. 13

Noon. Men's Soccer vs. Rhodes College. Francis Field. 935-4705.

Wednesday, Sept. 16

7 p.m. Men's Soccer vs. Westminster College. Francis Field. 935-4705.

And More

Tuesday, Sept. 8

7 p.m. Dance Theatre Auditions. Annelise Mertz Dance Studio, Mallinckrodt Ctr., Rm. 207. 935-8075.

Saturday, Sept. 12

8 p.m. Center for the Study of Ethics & Human Values Performance and Panel Discussion. "Dancing Who I Am." Part of the Ethnic Profiling Series. Edison Theatre. 935-9358.

Watch WUSTL sports live online

The Department of Athletics has reached an agreement with Stretch Internet to provide live streaming video of home games for football, volleyball, men's and women's soccer, and men's and women's basketball.

The live video will allow parents, friends and alumni to tune into home athletic contests at no cost.

Sports

For an updated schedule of games that will be streamed live, visit bearsports.wustl.edu.

Women's cross country ranked No. 3

The women's cross country team is ranked No. 3 in the U.S. Track & Field and Cross Country Coaches Association preseason poll.

The women's team checks in at No. 1 in the Midwest region rankings, while the WUSTL men are

No. 8 in the regional rankings.

The WUSTL women's team placed 12th at the 2008 NCAA Division III cross country championships. They were third at the 2008 NCAA Midwest regional championships and second in the University Athletic Association championships last year.

Both cross country teams open the 2009 season at 9 a.m. Saturday, Sept. 5, when they host the Big River Running Early Bird Meet at the Central Fields of Forest Park.



A unique way to learn about St. Louis For some freshmen, service in the community started even before classes began. Arts & Sciences sophomore Tobi Lee (standing), a counselor with the Leadership Through Service program, guides freshman participants in the program as they prepare to paint murals at Hamilton Elementary School in St. Louis last month. Leadership Through Service is a three-day pre-orientation program offered through the Community Service Office aimed at helping incoming students explore the St. Louis community while acclimating to college life. The program includes multiple community service projects, leadership training, speakers and workshops. Seventy-two freshmen participated this year, led by 15 upperclass students.

Skandalaris Center welcomes renewed funding for entrepreneurial contest

By MELODY WALKER

The YouthBridge Community Foundation has renewed its partnership with the Skandalaris Center for Entrepreneurial Studies to fund the annual Social Entrepreneur and Innovation Competition (SEIC) with an initial \$450,000 pledge over the next three years.

YouthBridge has been a major sponsor of the competition for nonprofit, community-based ventures since its inception in 2005. The newly named YouthBridge SEIC is unique in St. Louis and, in terms of monetary awards, is the largest competition of its kind in the United States.

"The YouthBridge commitment is helping to build the innovation environment around social issues in St. Louis," said Ken Harrington, director of the Skandalaris Center. "The free workshops and the speakers we offer, thanks to YouthBridge, get people thinking about new business models to help them meet their mission. They offer unique opportunities for people to connect and help each other."

Over the past five years, the

SEIC has made 23 awards totaling \$480,000, including \$5,000 student awards each year presented to the best student-founded or supported venture. The competition defines social entrepreneurship as "using entrepreneurial skills to craft innovative processes, approaches and solutions to help resolve social issues."

Last year's 42 entrants in the SEIC included a diverse range of ventures with missions to provide educational, cultural and vocational training. Additional sponsors to the YouthBridge SEIC include the Incarnate Word Foundation, the Lutheran Foundation of St. Louis and the Daughters of Charity Foundation of St. Louis.

To kick off the 2009-10 YouthBridge SEIC and the annual Olin Cup entrepreneurial competitions, the Skandalaris Center is sponsoring Assembly Series speaker Jessica Jackley at 5 p.m. Sept. 17 in Simon Hall's May Auditorium.

Jackley is a co-founder of Kiva.org, the first online micro financing Web site that connects individual lenders to aspiring entrepreneurs in developing countries. It allows people to

make loans of as little as \$25 directly to small businesses in the developing world and then maintain one-to-one contact online with the entrepreneurs who receive the loans.

Jackley's interest in helping third-world entrepreneurs was inspired during travels and study abroad while a junior at Bucknell University. Since launching Kiva.org in 2005, she has spoken widely on micro finance and social entrepreneurship. She earned a master's degree in business administration from the Stanford Graduate School of Business with certificates in Global Management and Public Management. A reception will follow Jackley's presentation.

The 2010 YouthBridge SEIC competition is open to all members of the WUSTL and St. Louis communities and is accepting applications. For information, visit sc.wustl.edu/SEIC/enter.html.

The Olin Cup competition sponsored by the Skandalaris Center and the Olin Business School is open to teams with at least one WUSTL student or alumnus. For entry information, visit sc.wustl.edu/OlinCup/enter.html.

New Web site launches to assist WUSTL families

By JESSICA DAUES

The Washington University Family Network Web site — WUSTLfamily.net — launches Sept. 3. The WUSTL Family Network provides an online forum where members of the WUSTL community can exchange information about parenting, events and the St. Louis area.

Through the Family Network, WUSTL community members can post questions or notices on family, lifestyle or cultural topics, and other members can offer feedback. The network, which is sponsored by WUSTL's Diversity Initiative, will be for WUSTL faculty, students and staff only. Though anyone can view the Web site, a University e-mail address is required to post questions and responses.

Sophia Hayes, Ph.D., associate professor of chemistry in Arts & Sciences, came up with the idea of a WUSTL Family Network Web site after she and a group of her friends — some of which are WUSTL faculty members — started a Yahoo group to discuss child-related questions.

"Many faculty, graduate students and postdocs are transplants to the St. Louis area from other communities, and they may initially lack a local network of family and close friends," Hayes said.

"This online resource is a way for people to exchange information on topics where 'local knowledge' is very helpful," Hayes said.

"Such local insight takes time to develop, and for the many in the University community, this online community can help augment other community links that might have yet to fully develop, and ensure there are resources in place to help women and men balance their work and family obligations while sharing a sense of common purpose."

Topics for discussion on the Family Network may include pediatricians, school districts, day care centers, adoption and interfaith families.

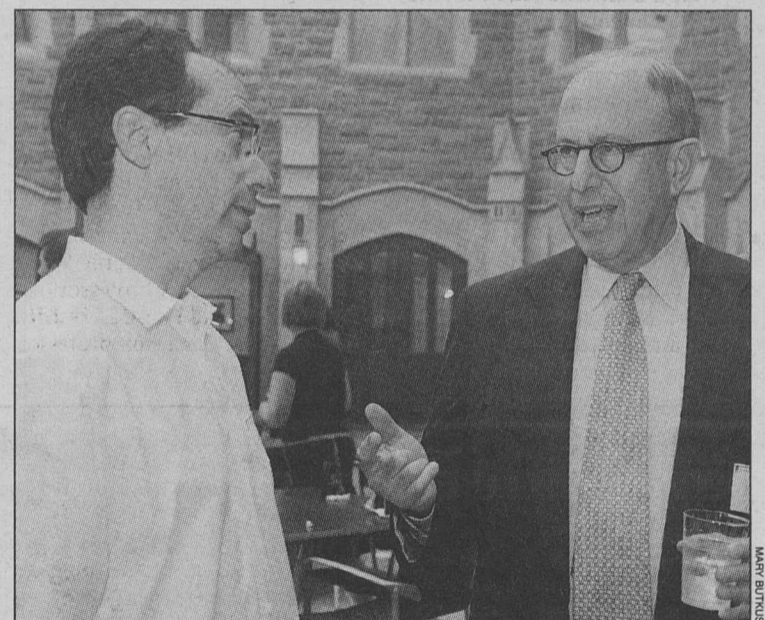
The site also will feature links to other reputable family, cultural and St. Louis-area Web sites and forums.

Because only those with WUSTL e-mail addresses can respond to questions or invitations, members can feel secure posting invitations for play dates or events knowing that those who respond are from within the WUSTL community, said Laurel Sgan, program manager in the Office of Diversity Initiatives, who spearheaded the effort to both fund and develop the Web site for the Family Network.

WUSTL community members can post to the Family Network anonymously. That may be helpful to those who have topics they are curious about but don't want to announce to the public at that time, such as looking for a tutor for a struggling student, Sgan said.

For more information about the Family Network, contact Sgan at 935-9206 or sgan@wustl.edu.

Washington University Family Network
Parent-to-parent resources for our community



Adjunct professors James Kutten, J.D. (left), and Larry Brody, J.D., mingle in Crowder Courtyard following the ceremony Aug. 25 honoring their service to the School of Law. Brody has dedicated more than 40 years of service to the school.

Students give back during Service First

By NEIL SCHOENHERR

As anyone who has ever volunteered will say, giving back can become addictive.

While more than 1,000 Washington University freshmen prepare to help clean up local schools for the upcoming year, a group of seniors has led the way, reliving memories and celebrating the spirit of community service. The seniors gathered last week to participate in a Service First reunion project.

"The purpose of Service First is to introduce our first-year students to public service and ongoing community service projects," said Stephanie Kurtzman, director of the Community Service Office and associate director of the Richard A. Gephardt Institute for Public Service.

"It's exciting to see that these seniors took our vision to heart,

have continued to volunteer in the community and launched their own 'Service First 4.0' last weekend with great success," Kurtzman said.

The 11th annual Service First will be held Saturday, Sept. 5, at 12 St. Louis area schools. Approximately 90 students will head to each school to paint indoor and outdoor murals, activities and maps on the playground; create bulletin boards; and assist teachers in preparing classrooms.

New this year, transfer and exchange students will simultaneously be offering service to Gateway Greening in their own version of Service First.

Volunteers will work at the schools from approximately 12:30 p.m.-5 p.m. They then will return to the University for a community service fair on the South 40, where they will learn more about the myriad community service opportunities in which they

can get involved during their time at WUSTL.

Service First began in 1999 with about 600 student volunteers helping to clean and beautify scenic trails. It has grown and flourished each year, with more than 1,000 students, staff and faculty volunteers participating.

Schools to be visited this year are Busch, Cole, Dewey, Long, L'Ouverture, Roosevelt, Vashon, Woodward and Yeatman in the Saint Louis Public School District; Flynn Park in the School District of University City; Wellston Early Childhood Center; and KIPP: Inspire Academy.

Service First is funded by the University and numerous generous donors, including the Washington University Women's Society and local and national businesses.

For more information, contact Kurtzman at 935-5599.

School of Law celebrates service of adjunct professors

By JESSICA MARTIN

The School of Law held a celebration Aug. 25 to express its appreciation for the work of its adjunct professors, particularly those with 10 or more years of service.

"Adjuncts bring to our students a number of things that our full-time faculty cannot: namely, specialized expertise in a given practice area and the kind of skills training that only a practicing lawyer can impart," said Daniel L. Keating, J.D., vice dean and the Tyrrell Williams Professor of Law. "And the most amazing thing is, our adjuncts do all of this while maintaining a day job."

This was the first time that the

law school has recognized adjuncts for their years of service. At present, 38 adjuncts have 10-19 years of service, and 16 adjuncts have 20 or more years of service.

According to Mary Perry, J.D., assistant dean for adjunct faculty and lecturer in law, the current adjunct law professors have more than 1,200 combined years of service.

One adjunct law professor, Larry Brody, J.D., received special recognition for more than 40 years of service. Brody, an alumnus of the law school and partner at Bryan Cave LLP, co-teaches "Family Wealth Management and Estate Planning & Drafting: Advanced Topics." He began teaching at the law school in 1969.

Notables

Of note

Jan Amend, Ph.D., associate professor of earth and planetary sciences in Arts & Sciences, has received a five-year, \$499,418 grant from the National Science Foundation for research titled "RCN: A Deep-Biosphere Research Coordination Network." Also receiving the grant was Katrina Edwards, Ph.D., of the University of Southern California. ...

Dennis L. Barbour, Ph.D., assistant professor of biomedical engineering, has received a one-year, \$6,136 grant from the National Institute on Deafness and Other Communications Disorders for research titled "Effects of Spectral Context on Responses in Auditory Cortex." ...

Yehuda Ben-Shahar, Ph.D., assistant professor of biology in Arts & Sciences, has received a three-year, \$456,000 grant from the National Institute on Deafness and Other Communication Disorders for research titled "Chemosensory Roles for Epithelial Sodium Channels." ...

Ian Caine and Derek Hoeflerlin, both adjunct lecturers in architecture, collaborated with alumnus Michael Heller to create one of six winning proposals in the international Rising Tides design competition, hosted by the San Francisco Bay Conservation and Development Commission. The group's "100 Year Plan" noted that rising tides were one symptom of a larger water crisis and advocated for an ambitious, policy-based "toolkit" that trades the "watershed hopping" method of massive water transport for a more localized approach. The winning teams share a total prize of \$25,000. ...

Ralph Damiano Jr., M.D., the John M. Shoenberg Professor of Surgery and chief of cardiac surgery, has been named president-elect of the International Society for Minimally Invasive Cardiothoracic Surgery and president of the Society of Clinical Surgery. ...

James W. Fleshman Jr., M.D., professor of surgery and chief of the Section of Colon and Rectal Surgery, has been elected president of the American Society of Colon and Rectal Surgery. He

previously served on the society's Executive Council as its secretary and as chairman of numerous committees. ...

Michael L. Gross, Ph.D., professor of chemistry in Arts & Sciences, has received a one-year, \$40,166 grant from the National Center for Research Resources for research titled "A Resource for Biomedical Mass Spectrometry." The grant provided summer stipends for undergraduate students, including minority students, who learned mass-spectrometry based proteomics under the direction of **Henry Rohrs, Ph.D.**, of the mass spectrometry resource. ...

Susan M. Langhorst, Ph.D., director of the Radiation Safety Division in the Department of Environmental Health and Safety, has been chosen as the Radiation Safety Officer Representative on the Nuclear Regulatory Commission's Advisory Committee on the Medical Use of Isotopes. ...

Kenneth Murphy, M.D., Ph.D., professor of pathology and immunology and HHMI investigator in pathology and immunology, has received a two-year, \$315,000 grant from the Department of Defense for research titled "Defining the Role of BTLA in Breast Cancer Immunosurveillance and Selective Targeting of the BTLA-HVEM-LIGHT Costimulatory System." ...

Robert Pless, Ph.D., associate professor of computer science and engineering, has received a two-year, \$198,549 subcontract from Barron Associates Inc. for research titled "SBIR Phase II: Propagation of Uncertainty in Anticipatory Image Exploitation Using Polynomial Chaos." ...

Herman D. Pontzer, Ph.D., assistant professor of anthropology in Arts & Sciences, has received a one-year, \$23,950 grant from the Wenner-Gren Foundation for research titled "Metabolic Cost of Living in Bonobos." ...

Joshua Reece, graduate student in biology in Arts & Sciences, has received a one-year, \$7,500 grant from the Fort Worth Zoo Association for research titled "Genetic Sex Diagnosis of *Cryptobranchus alleganiensis*." ...

Yoram Rudy, Ph.D., the Fred Saigh Distinguished Professor of Engineering, and **Leonid Livshitz, Ph.D.**, research assistant professor

Trustees grant faculty promotions, tenure

At recent Board of Trustees meetings, the following faculty members were appointed with tenure, promoted with tenure or granted tenure effective July 1, 2009, unless otherwise noted.

Appointment with tenure

Robert Richard Kuehn, J.D., as professor of law
William J. Maxwell, Ph.D., as associate professor of English in Arts & Sciences
John Wiggs Patty, Ph.D., as

associate professor of political science in Arts & Sciences

Elizabeth Maggie Penn, Ph.D., as associate professor of political science in Arts & Sciences

Hillary A. Sale, J.D., as professor of law

Sarah Westphal-Wihl, Ph.D., as professor of Germanic languages and literatures in Arts & Sciences

Gary S. Wihl, Ph.D., as professor of English in Arts & Sciences

Promotion with tenure

Barak Alon Cohen, Ph.D., to

associate professor of genetics, effective Jan. 1, 2009, with tenure effective May 1, 2009

Vijay Sharma, Ph.D., to associate professor of radiology, effective Jan. 1, 2009, with tenure effective May 1, 2009

Yuan-Chuan Tai, Ph.D., to associate professor of radiology, effective July 1, 2008, with tenure effective May 1, 2009

Granting of tenure

Jill B. Firszt, Ph.D., associate professor of otolaryngology, effective May 1, 2009

of biomedical engineering, have received a three-year, \$294,621 grant from the National Science Foundation for research titled "Modeling Spatial Organization of Cardiac Cell Function: Application to Calcium Waves and Arrhythmia." ...

John Shreshian, Ph.D., professor of mathematics in Arts & Sciences, has received a three-year, \$196,821 grant from the National Science Foundation for research titled "Algebraic, Topological and Enumerative Combinatorics." ...

Barry Sleckman, M.D., Ph.D., professor of pathology and immunology, has received a five-year, \$1,654,845 grant from the National Cancer Institute, entitled "Activation of Cellular Signaling Pathways by DNA Double Strand Breaks." ...

The Department of Ophthalmology and Visual Sciences gave the following awards June 12:

Morton E. Smith, M.D., professor emeritus of and lecturer in ophthalmology and visual sciences and associate dean emeritus for post-graduate education, was named academic teacher of the year; **Robert M. Feibel, M.D.**, professor of clinical ophthalmology and visual sciences, was named clinical teacher of the year; and **Shiming Chen, Ph.D.**, associate professor of ophthalmology and visual sciences, was named research teacher of the year. ...

Steven Teitelbaum, M.D., the Wilma and Roswell Messing Professor of Pathology and Immunology, has received a five-year, \$1,710,000 grant from the

National Institute of Arthritis and Musculoskeletal and Skin Diseases for research titled "Mechanisms of Polarized Secretion by Bone Cells." ...

Jay W. Tichelaar, Ph.D., research assistant professor of surgery (general surgery), has received a two-year, \$152,000 grant from the National Institutes of Health/National Cancer Institute for research titled "Role of AP-1 in the Chemopreventive Function of Green Tea in Vivo." ...

Victor Varner, graduate student in biomedical engineering, has received a two-year, \$52,000

grant from the American Heart Association for research titled "Mechanisms of Embryonic Heart Tube Formation." The research will be performed under **Larry A. Taber, Ph.D.**, the Dennis and Barbara Kessler Professor. ...

Lihong Wang, Ph.D., the Gene K. Beare Distinguished Professor of Biomedical Engineering and professor of radiology, has received a four-year, \$2,427,071 grant from the National Institutes of Health for research titled "Confocal Photoacoustic Microscopy: Technology Development."

Obituary

Dodge, professor emeritus of pediatrics and of neurology, 86

Philip R. Dodge, M.D., one of the founders of pediatric neurology and head of the Department of Pediatrics for 21 years, died Sunday, Aug. 30, 2009, of heart failure at Barnes-Jewish Extended Care in St. Louis. He was 86.

Dodge, professor emeritus of pediatrics and of neurology and lecturer at the School of Medicine, was named professor and head of the Department of Pediatrics in 1967 and continued in that role until 1986. His creative leadership brought the department and the hospital to international prominence for clinical care, teaching and research. Larry J. Shapiro, M.D., executive vice chancellor for medical affairs and dean of the School of Medicine, said Dodge was a giant in American pediatrics and in child neurology.

"He was a leader of exceptional vision, courage, skill and warmth," Shapiro said. "Along with many others, I benefited from his support and wisdom. He revitalized the Department of Pediatrics and made it an exciting intellectual environment, which inspired many to pursue careers in pediatrics and in child neurology. He was substantially responsible for the creation of the modern St. Louis Children's Hospital. Along with the rest of the University and St. Louis Children's Hospital communities, I will miss him."

"While at the School of Medicine, Phil was a revered teacher, spectacular clinician and consummate scholar and mentor," said Alan L. Schwartz, Ph.D., M.D., the Harriet B. Spoehrer Professor and head of the Department of Pediatrics. "He trained and mentored most of the academic pediatric neurology leaders in the United States during the past four decades. We will

profoundly miss him."

"He was a gentle giant of pediatrics and neurology who was the architect and spirit of a renaissance of those fields at the School of Medicine and St. Louis Children's Hospital in the 1970s and 1980s," said James P. Keating, M.D., the W. McKim O. Marriott Professor of Pediatrics.

Dodge's trainees continued to seek his counsel and wisdom throughout their careers, said Edwin Dodson, M.D., associate vice chancellor and associate dean

for admissions and continuing medical education and professor of pediatrics and of neurology.

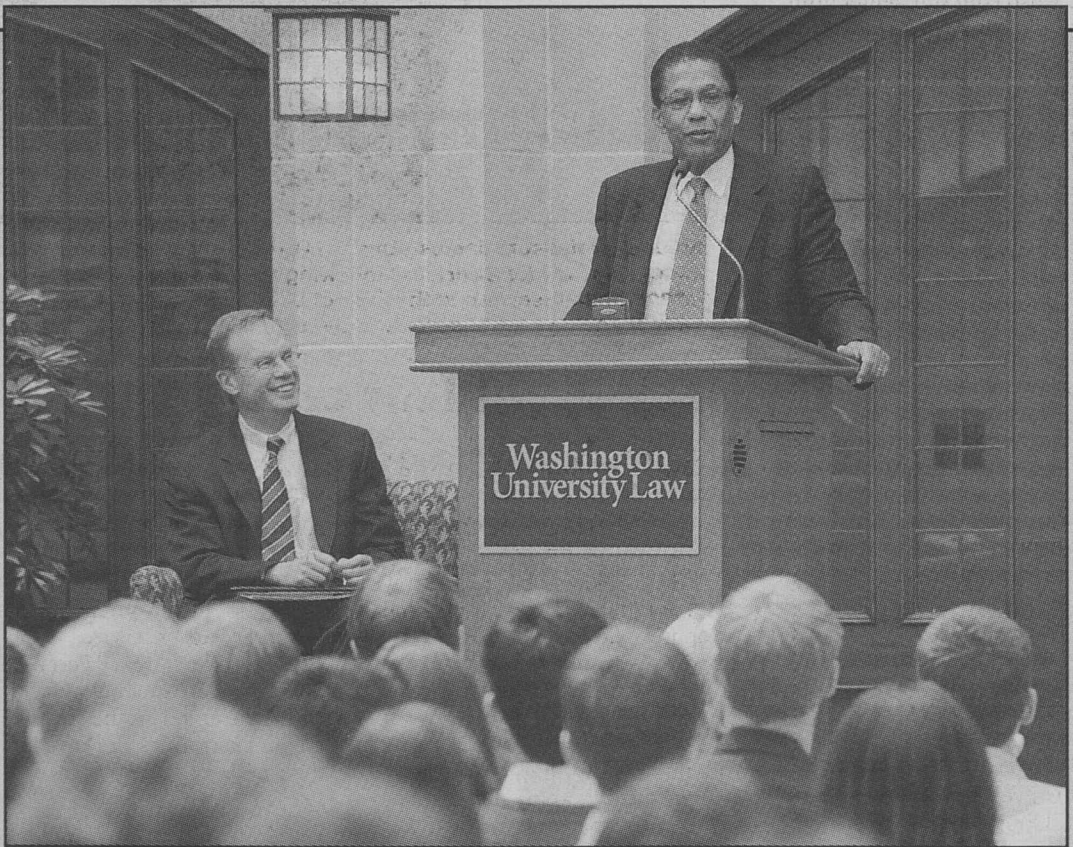
"His genius, character and genuine warmth were most evident in the unpretentious and caring style with which he attended to and cared for the children and their families: always patient, always concerned, always tender," Dodson said.

Prior to his appointment at the School of Medicine, Dodge was an assistant professor of neurology at Harvard Medical School and director of the pediatric neurology program at Massachusetts General Hospital.

A Massachusetts native, Dodge earned a medical degree from the University of Rochester in 1948. He completed an internship at Strong Memorial Hospital in Rochester, N.Y., residency training at Boston City Hospital and teaching fellowships at Massachusetts General Hospital.

Dodge spent six years as a major in the U.S. Army, serving as chief of the neurology services in Tokyo; Fort Campbell, Ky.; and Hawaii.

Dodge is survived by two daughters, Susan Diass of Rochester, N.Y.; Judy Speck of St. Louis, senior research technician in the Department of Otolaryngology; and four grandchildren.



A strong moral compass Judge David Coar of the U.S. District Court for the Northern District of Illinois addresses students after the School of Law's annual Matriculation Ceremony last month in the Crowder Courtyard of Anheuser-Busch Hall. During his address, Coar outlined the importance of a strong moral compass in the law students' chosen profession, and how sometimes following one's gut is better than following the example of one's co-workers. He said that the legal field is not simply an occupation but a "learned profession" in which the students, as lawyers, will have "the duty to place the interests of society over your own interests."

Washington People

It was a common meeting of academics. Cindy Grimm, Ph.D., associate professor of computer science and engineering, was wearing protective gloves in the hapkido Korean martial arts class that she helped teach at Brown University, taking the punches of Bill Smart, Ph.D., assistant professor of computer science and engineering.

Grimm was a second-year doctoral student in computer science, Smart a first-year. They barely knew each other. Smart threw an errant punch, causing his elbow to roll off Grimm's glove and land with a loud, nasty snap on her nose. Smart, flummoxed and sorry that he'd hurt his instructor, offered to drive her to the emergency room.

There they sat, and sat, and sat, and learned a lot about each other. After an exam and X-rays, the intern sent Grimm home. No break. The next morning she got a call from the hospital and was told to come in. The intern had been wrong: She had a broken nose.

Two weeks later, in the same class, Grimm "got Smart," inadvertently nicking him under the eye and breaking a blood vessel that turned his face into the color of a tornadic sky. Thus, a very strong — and unusual — bond was formed that led to marriage in 2002.

BY TONY FITZPATRICK



Cindy Grimm, Ph.D. (right), associate professor of computer science and engineering, talks with senior engineering student Paul Heider. "What is special about her is the amount of energy that she pours into research and teaching, supporting colleagues and students," Robert Pless, Ph.D., associate professor of computer science and engineering, says of Grimm. "And even more compelling is her ability to translate this energy into lasting contributions."

Model professor

Grimm's computer models help researchers better understand the world

Analyzing real-world data

While Grimm and Smart have set aside the martial arts for the less dynamic sport of rock climbing, they still help each other in the academic ring. Grimm is director of the Department of Computer Science & Engineering's Media and Machines Laboratory, composed of Smart; Robert Pless, Ph.D., associate professor; Caitlin Kelleher, Ph.D., assistant professor; and Tao Ju, Ph.D., assistant professor. Projects range from computer graphics to computer vision to machine learning, which includes robotics.

"The common thread of our research is that we tend to work with real-world data," Grimm says. "We take data from sensors, lasers, cameras, CT and MRI machines to present them to other researchers in ways that help them solve their problems. Most of what we try to do is build computer models of the world, based on collected data that we can interact with and explore to better understand what's going on."

For example, Grimm is collaborating with Philip Bayly, Ph.D., the Lilyan and E. Lisle Hughes Professor of Mechanical Engineering and chair of the Department of Mechanical, Aerospace & Structural Engineering. Bayly is studying the biomechanics of brain development in the ferret, the smallest mammal that has cortical

folds in its brain. These folds are very important in human brain development because some of the most severe neurological problems such as schizophrenia, autism and lissencephaly (a smooth cortex found with severe retardation) are associated with abnormal brain folding. One of Grimm's students is assembling Bayly's data to enable a visualization of the mechanical forces at work in folding.

"The long-term goal of this research is to understand how the brain form changes in a particular disease," Grimm says. "I'm interested in the mathematical question of how to analyze the shapes and track physical points through time automatically. I've been mostly pointing Phil and his collaborators toward how the problem looks in graphics."

Says colleague Pless: "What is special about her is the amount of energy that she pours into research and teaching, supporting colleagues and students. And even more compelling is her ability to translate this energy into lasting contributions."

"She's now leading an effort to make the entire curriculum more modern, modular and interactive," Pless says. "As a colleague, she has an intuition that spans from very theoretical to very applied, from formal tools to represent shapes with complex topologies, to insights on what technology demos will resonate with the public."

Active learning

In 2009, Grimm became principal investigator of a National Science Foundation grant that brings active learning to WUSTL computer science classes, relegating the lecture to being posted on a Web site and viewed the night before in preparation for a class of interaction, group work and peer review. The belief is that active learning, or studio-based instruction, better prepares students for the workplace.

"Active learning is definitely catching on nationally, and the evidence is pretty conclusive that you get lots more engagement in the classroom," she says. "The syllabus of active learning classes might contain less, but information is retained much better."

Another area she's working in is called subtle gaze direction, which is a sneaky way of getting people to draw their gaze on a

part of an image without the subject noticing it.

It works like this: If you take an image and make a part of it "blink" — either by making it brighter or a different, gaudy color — your peripheral vision will pick it up and cause your eye to saccade (rapid, intermittent movement) toward that blink. But if the blink is turned off before the eye fully lands on it, the subject doesn't actually see it.

"The subject's peripheral vision responds to it, but it doesn't consciously communicate, 'There's a blinky dot, I'm going to look at it,'" Grimm says. "It just gazes over there, so the subject doesn't actually see it, consciously."

The potential application for this is as a training mechanism to help technicians screen for tumors.

"People who are really good at this develop certain eye patterns that enable them to look through radiology images to find tumors," she says. "The thought is you could combine the technique with novel computer vision algorithms to make an estimate of where there might be tumors. There are tons of computer visual algorithms out there, but they're at most 90 percent accurate. These can give false positives but no false negatives. Ultimately, a human will make the call."

Art and computers

Grimm grew up in Mountain View, Calif. Her father was a junior-high teacher; her mother worked at home and volunteered as a teacher's aide at a school that had a high population of disabled children. Her parents took a basic computing class, and her mother began writing software to help the students with grids, maps and simple mathematical graphics.

She took her software to a fledgling company whose people liked her work, and her mother was invited to be a founding member of the educational software company, The Learning Company.

Eventually, her father left teaching and went to work for Apple Computer Inc. In the summers, throughout high school, Grimm tested software for her mother's company.

This techy background notwithstanding, Grimm entered the University of California, Berkeley, in the fall of 1985 with the

intention of becoming an art major. She took a basic computer science class that set the wheels turning: Why not be a double major?

"When I told people that I was majoring in art and computer science, they looked at me as if I'd come from the loony bin," she says. "So few people were doing that then, but here we routinely turn out several students a year with some combination of art and computer science."

Art adorns her fifth-floor Lopata Hall office, some of it hers, some her mother's, who took up drawing later in life. Grimm loves printmaking and figure drawing, both of which figured into a computing challenge she tackled with Smart in 2002.

Smart and his students were building a mobile robot and trying to find a task for it to accomplish. They decided to try to make a robot that could roam a room like a wedding photographer and take pictures. Getting the robot to be mobile was not easy, but neither was teaching it to frame a person in a scene to take a viable picture.

Lewis, the world's first robotic photographer, made his debut at a cocktail reception at the Clayton Ritz-Carlton hotel in November 2002 at a prestigious meeting of international science writers, the Council for the Advancement of Science Writing's New Horizons in Science briefing.

The night before, Grimm, Smart and their students went sleepless trying to get Lewis to operate correctly. They transported Lewis (aka "The Big Red Trash Can") to the Ritz and set up hours before the reception, and as soon as people started arriving at 6 p.m., Lewis took off and roamed the crowd, detecting faces and scenes and computing the right framework. Grimm had written the code that allowed Lewis to become a skilled photographer, based on simple rules of art.

Grimm expects that the shape of things to come for her will be shape understanding.

"We still can't get quickly from imaging data to geometric models that we can ask interesting questions of," she says. "That will take time, but there will be some very interesting breakthroughs ahead because there is such an explosion of data available."

Cindy Grimm

Home: Mountain View, Calif.

Education: B.S., computer science and art, 1990, University of California, Berkeley; Ph.D., computer science, 1996, Brown University; postdoctoral research, 1997-2000, Microsoft

Hobbies: Rock climbing, hiking and snow boarding. To celebrate earning a bachelor's degree, Grimm took five months off and backpacked through Europe; for her doctorate, she took two months off to backpack through New Zealand.



Cindy Grimm fords a stream at Milford Sound, Gertrude Pass, New Zealand, with her husband, Bill Smart, in the background.