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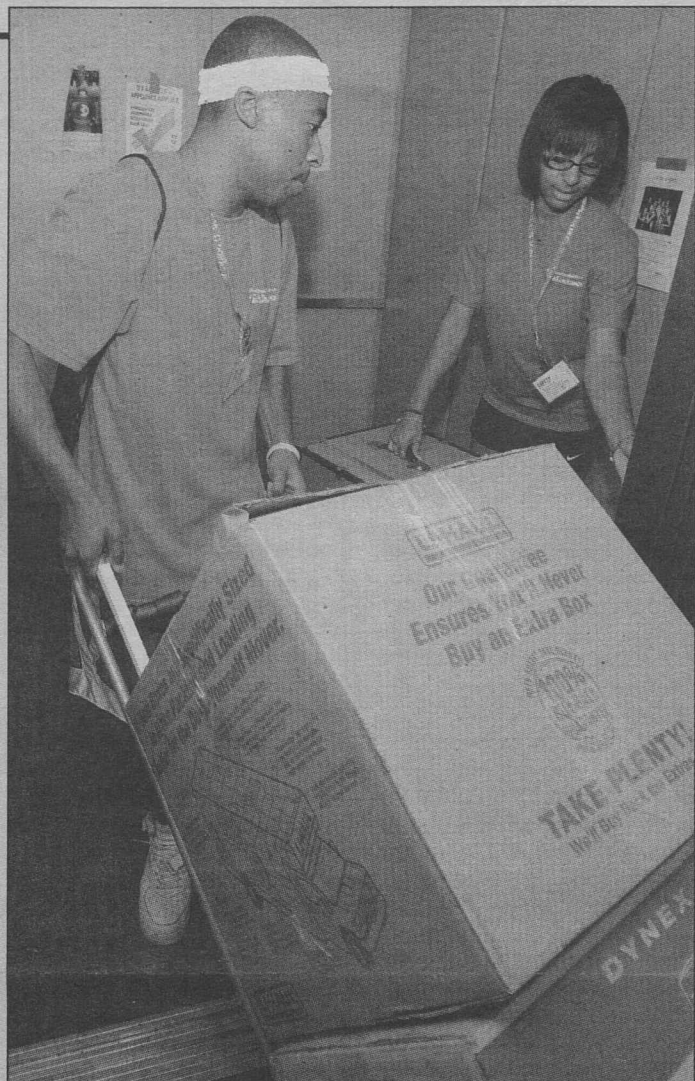
# Record

Aug. 30, 2007

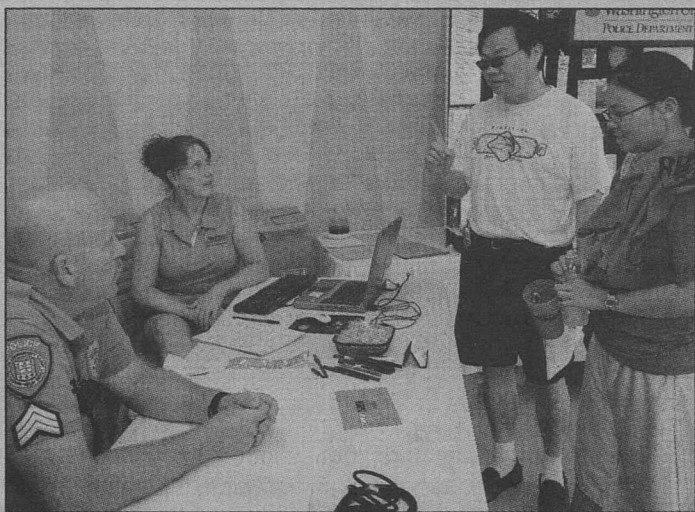
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Washington University in St. Louis



KEVIN LOWDER



KEVIN LOWDER

**Settling in** The South 40 was abuzz with activity last week as freshmen began moving into residence halls. Student volunteers (top) helped with the heavy lifting. WUSTL organizations, such as University Police, were on hand to introduce themselves to the new campus residents. Campus police officers also were busy directing the heavy volume of traffic on the South 40.

## Wrighton visits Chile, promotes higher education partnerships

Chancellor Mark S. Wrighton was among a delegation of eight college and university presidents who traveled with U.S. Secretary of Education Margaret Spellings to Chile and Brazil Aug. 18-24 to promote higher education partnerships and exchanges between the United States and Latin America.

The delegation met with current Chilean students and young professionals who had studied in the United States. Meetings with Chilean university, government and business leaders were also held to help build educational partnerships and to increase the number of Latin American students study-

ing in the United States.

"This trip to Chile was important in continuing to encourage students from other countries to pursue higher education in the United States," said Wrighton. "In our increasingly global society, it has become critical that our own graduates are able to understand and navigate the international community in which they live.

"In addition to encouraging our students to study abroad, I am very interested in attracting scholars from Latin America and around the world to pursue their studies at Washington University. It was a privilege to be selected to join Secretary Spellings and the

See **Partnerships**, Page 6

## Mars database enhanced by new WUSTL software program

### CRISM opens Mars to the world

A software program developed by Washington University researchers is allowing viewers access to data and some early images from the most powerful spectral camera ever sent to Mars. The information is available on NASA's online planetary data archive.

Members of NASA's Planetary Data System (PDS) Geosciences Node, housed in the Department of Earth and Planetary Sciences in Arts & Sciences, produced the program, the Orbital Data Explorer.

Keith J. Bennett, deputy project manager in earth and planetary sciences and deputy manager of the PDS Geosciences Node, and software engineer Dan Scholes, put the program together. It is a collection of tools that allows users to search, display and download PDS-archived data from the Mars Reconnaissance Orbiter (MRO) and other selected Mars missions. The program is available at: <http://ode.rsl.wustl.edu/mars/>.

Raymond E. Arvidson, Ph.D., the James S. McDonnell Distinguished University Professor and

chair of the earth and planetary sciences department, is director of the Geosciences Node. The images come from the Compact Reconnaissance Imaging Spectrometer for Mars (CRISM), flying aboard NASA's MRO.

The Orbital Data Explorer also provides data sets from the imaging systems of current and past missions, the High Resolution Imaging Science Experiment, the Mars Express High Resolution Stereo Camera and the Mars Express Observatoire pour la Minéralogie, l'Eau, les Glaces et l'Activité spectrometer, as well as gravity data.

CRISM has been searching for mineralogical evidence of past water on the Martian surface since November 2006, when MRO settled into a science-gathering orbit around the planet.

CRISM, combined with other cameras and sensors on MRO, is providing the most detailed look yet at Martian geology, climate and surface makeup. Through its telescopic scanners, CRISM has taken more than 1,900 images of specific targets, including more than 500 at the instrument's highest resolution

See **Software**, Page 6

## Weight-loss strategies may benefit from research on intestinal proteins

By JIM DRYDEN

School of Medicine researchers have found that a protein absorbs lipids in the upper part of the intestine, and they believe its key role in this process may provide a novel approach for obesity treatment in the future.

Principal investigator Nada A. Abumrad, Ph.D., the Dr. Robert C. Atkins Professor of Medicine and Obesity Research, first identified the protein, CD36, that facilitates the uptake of fatty acids. The protein is located on the surface of cells and distributed in many tissues, including fat cells, the digestive tract, heart tissue and skeletal muscle tissue.

Her studies have shown that the intestine makes large amounts of CD36 and that it is important to the absorption of fatty acids. Initially when she compared normal mice that made the protein to

genetically altered mice lacking CD36, she couldn't find any net difference in their fat absorption.

But the new study, reported in the July 6 issue of the *Journal of Biological Chemistry*, revealed why. Normally, CD36 absorbs

fatty acids in the upper, or proximal part of the intestine, but when it is absent, lower, more distal sections of the intestine compensate and absorb the fat.

"We think of the intestine as a single organ, but it's really made up of distinct areas that are so specialized it's almost like several organs," Abumrad said. "The fat that is not absorbed in the proximal areas ends up being bumped into

the distal intestine where different systems absorb it."

Abumrad and her colleagues, including first author Fatiha Nasir, Ph.D., research assistant professor in the Division of Geriatrics and Nutritional Science, say they believe that targeting the upper part of the intestine and interfering with normal CD36 function might be a useful tool in weight loss. The team found that animals that could not make CD36 absorbed fat less efficiently, and as a result they tended to eat less of it.

"The most exciting part for us is that these things may apply to humans," Abumrad said. "Humans with mutations in the gene that makes CD36 don't seem to process fat normally either."

Abumrad learned from the mice that when fatty acids and cholesterol are not absorbed in

See **Protein**, Page 7



Abumrad

## First WUSTL underground parking garage opens

By NEIL SCHOENHERR

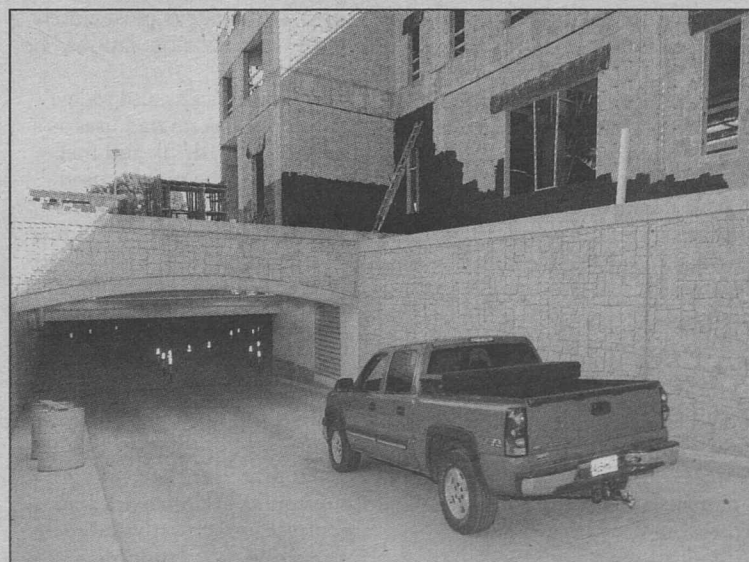
The new central underground parking garage on the Danforth Campus is now open.

During this academic year, the lot provides an additional 380 parking spaces. When it is fully completed after the University Center opens next August, the lot will include 525 spaces.

Parking is available only on the second and third levels while the University Center is under construction. Level 1 has been designated as a construction zone.

Access to the garage is from Olympian Way with vehicles passing in front of Simon Hall to reach the garage ramp. Next August, the entrance will be from Wallace Drive at Forsyth Boulevard.

See **Garage**, Page 6



A vehicle enters the newly opened parking garage below University Center. Despite ongoing construction, parking is available on the second and third levels. When fully completed, the garage will include 525 spaces.

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## New tuition agreement announced for graduate and professional students

**A**s a way to support interdisciplinary study, the deans of Washington University's seven schools have signed a new graduate/professional tuition allocation agreement that encourages graduate and professional students to take courses outside of their home schools.

The agreement, now in effect, pertains to students admitted to and enrolled in full-time master's or doctoral degree programs in Arts & Sciences, the Olin School of Business, the Sam Fox School of Design & Visual Arts, the School of Engineering, the School of Law, the George Warren Brown School of Social Work and the School of Medicine.

Edward S. Macias, Ph.D., executive vice chancellor, dean of Arts & Sciences and the Barbara and David Thomas Distinguished Professor in Arts & Sciences, says that the deans' intention with this agreement is to encourage multidisciplinary learning by graduate and professional students while they are pursuing their major course of study.

"We want our students and faculty to feel comfortable using all the resources of this great University," said Macias.

"By creating this 'free-trade' agreement between the schools, we are encouraging interdisciplinary education. We want our graduate students to be able to easily bridge disciplines and schools for a richer, more in-depth learning experience."

The other deans who signed the agreement are Carmon Colangelo, dean of the Sam Fox School; Mahendra R. Gupta, Ph.D., dean of the business school; Edward F. Lawlor, Ph.D., dean of the social work school; Mary J. Sansalone, Ph.D., dean of the engineering school; Larry J. Shapiro, M.D., executive vice

chancellor and dean of the medical school; and Kent D. Syverud, J.D., dean of the law school.

The agreement does not affect how students pay their tuition, but rather how schools reimburse one another. The schools will no longer charge one another when students take courses that are outside of their home school.

If students decide to pursue multiple degrees or certificates, they will be appropriately charged. Students will not be allowed to earn credit toward two programs while only paying tuition for one.

Courses and students primarily in evening and part-time continuing education divisions, such as University College in Arts & Sciences and Executive Education programs, are not included in this agreement.

Included in the terms of the agreement are the following:

- The students must receive home school approval of any academic credit for the courses taken in the non-home school.
- Courses taken at the non-home school will ordinarily be on a space-available basis.
- The instructor for each course or the program office must give permission.

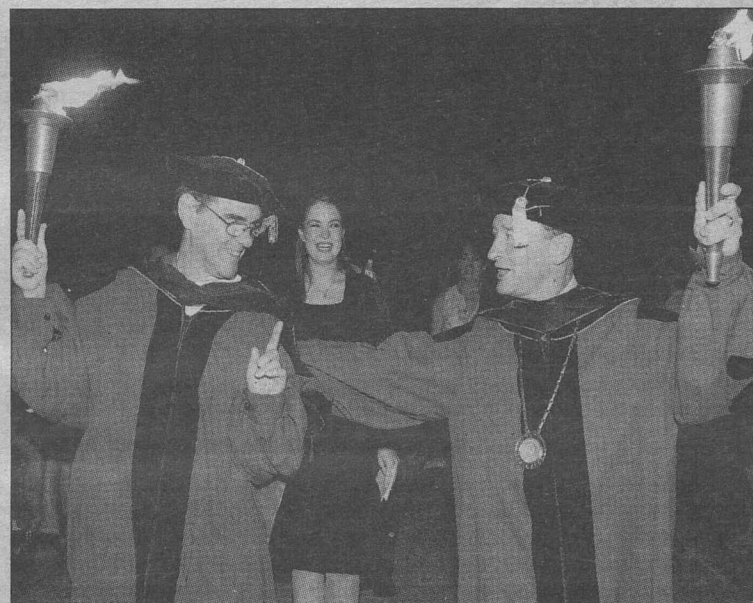
Because other terms also may apply, graduate and professional students should contact their appropriate advisers for more information.

The new deans' agreement will be reviewed after two years to assess the extent of across-school activity by graduate students and the financial impact on schools.

"Our intention is to make the free-trade agreement work without significantly increasing the teaching burden for any school and with minimal financial impact," said Macias on behalf of the other deans.



MARY BITTUS PHOTOS



### Start of something new

A student of Liggett Koenig Residential College (above) enthusiastically displays house pride at the Convocation Aug. 23 in the Athletic Complex Field House. The inaugural event of the academic year is Chancellor Mark Wrighton's opportunity to welcome new students and parents to the University.

Afterward, Wrighton and Convocation speaker Carl M. Bender (far left), Ph.D., professor of physics in Arts & Sciences, lead the procession of students and parents into Brookings Quadrangle for a local delicacy, Ted Drewes frozen custard.

## Coconut genetics traced by WUSTL biologist Olsen

By TONY FITZPATRICK

**T**he coconut has been popular in lore and on palates for centuries, yet little is known about the history of this palm's domestication and dispersal around the world.

Now, a WUSTL biologist is embarking on the task of understanding the plant's history by exploring the genetics of the coconut (*Cocos nucifera* L.).

Kenneth M. Olsen, Ph.D., assistant professor of biology in Arts & Sciences, has received a \$20,000 grant from the National Geographic Society to study the DNA of the plant, which can be used to infer historical relationships among populations. The work will be done in collaboration with Bee Gunn, a research specialist at the Missouri Botanical Garden.

"The coconut played a crucial role in the history of human exploration and dispersal across the tropics, and it continues to play a fundamental role in human societies today," said Olsen, who is also in the Environmental Studies Program in Arts & Sciences.

"As a portable source of nutrition and water, the coconut was critical for humans to be able to voyage, establish trade routes and colonize lands in the Pacific Rim, coastal India, Africa and South America.

"Our preliminary DNA sequence data show genetic variation within the coconut, and this is key to delineating historical re-

lationships among different populations.

"Fossil data indicate that the coconut underwent an ancient dispersal event that predates human activity. This early dispersal is expected to have created a genetic signature that can be traced by examining the genetic structure of plants sampled across the species range," Olsen said.

Superimposed on this ancient 'phylogeographic' structure is the more recent history of human dispersal, cultivation and domestication, Olsen continued.

"Existing genetic data, while limited, suggest that the most highly domesticated 'dwarf' form grown worldwide is most closely related to Pacific populations," he said.

Both historically and today, the coconut has myriad uses as a source of food, drink and fuel. Every part of the plant is used. Recently, coconut oil has been manufactured into biodiesel fuel in the Pacific, Olsen said.

He added that more than 11 million hectares (one hectare is equal to 100 acres) of land are now planted in coconut in 86 tropical countries.

Olsen will study the phylogeography of *C. nucifera* and its ancient dispersal; the geographical origin(s) of domestication; the impact of human activities in homogenizing population structure across the species range; and the possible geographical location of the undomesticated wild progenitor populations.

## Henne named new Greek life director

By NEIL SCHOENHERR

**R**yan-Jasen Henne has been hired as director of Greek life, announced Jill Carnaghi, Ph.D., director of campus life and assistant vice chancellor for students.

"I am very excited to have Ryan as the director of Greek life and part of the Campus Life staff," said Carnaghi. "Ryan is a dynamic person who has much experience and expertise working with students and student leaders, as well as Greek national headquarter staff. He is poised to take the Greek community and individual chapters to the next level related to their founding values and beliefs."

Henne started at the University July 2 after spending one year as assistant director for fraternities, sororities and independent living groups at Massachusetts Institute of Technology.

Prior to that, he worked for more than five years as an area coordinator in residence life and Greek adviser at Occidental College in Los Angeles.

He earned a master's degree in college student affairs and leadership from Grand Valley State University and is working on a doctoral degree in education from the University of Southern California.

As director, Henne will oversee the University's 11 fraternities and six sororities. The Greek Life Office is charged with the responsibility of establishing supportive and collaborative relationships with Greek leaders and members. The office provides chapter advis-

ing, event planning, leadership development, risk reduction and management and more.

"The fraternity and sorority members with whom I've interacted have been amazing," said Henne. "They are passionate, concerned and engaged. They are a lot of fun, too. These men and women are very knowledgeable on every facet of the institution, and I've learned quickly how in tune they are with their community's goals and needs."

Henne is looking forward to working closely with his colleagues in student affairs. "We all

have a shared vision of what our system is and how we can challenge students to continue to grow and create community.

This year, we are focusing on working with our fraternity and sorority men and women to further educate their non-affiliated contemporaries that these are values-based organizations with a time-honored sense of tradition and purpose.

"With their initiations, there is a greater expectation of responsibility, service and integrity. We are all optimistic and excited for the coming year."

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## School of Medicine Update

# Sports hernia surgery, rehab helps athletes return to play

By CAROLINE ARBANAS

In recent years, sports hernias have sidelined many high-level athletes for months and, occasionally, prevented a return to competitive sports altogether. New School of Medicine research shows that surgical repair of sports hernias using tension-free mesh, coupled with an innovative rehabilitation program, successfully returned athletes to competition in 93 percent of cases.

Lead investigator L. Michael Brunt, M.D., professor of surgery, presented the study July 15 at the annual meeting of the American Orthopaedic Society of Sports Medicine, held in Calgary, Alberta, Canada.

He and his colleagues evaluated the results of 61 sports hernia repair surgeries and a follow-up

rehab program to determine how quickly they speed an athlete's return to play.

"Sports hernias have received a lot of attention recently because of some high-profile athletes who have been sidelined with this condition," Brunt said. "The benchmark for these athletes is return to play in their sport at the same level they were before the injury. By using the tension-free mesh to strengthen and reinforce the groin and lower abdominal muscles, we found that most athletes were back to their sport within eight weeks of surgery."

A sports hernia is not a true hernia because there is no hole in the abdominal wall through which underlying tissues protrude. A diagnosis can be tricky because symptoms, particularly pain in the groin and lower abdomen, can

masquerade as a groin pull, strained abdominal muscle or other injury.

Those with sports hernias typically experience intense pain only at extreme levels of exertion. The condition is most common among hockey, football and soccer players. Repetitive twisting, turning or kicking motions at high speed are most likely to contribute to the condition.

"Usually there is no discomfort walking around but significant pain when an athlete moves from a stationary position to full stride," Brunt said. "For a high-performance athlete that can be enough to make a difference in their ability to compete successfully."

Although sports hernias occasionally occur among recreational athletes, it is far more common among those who play professional or college sports. In recent years, Philadelphia Eagles quarterback Donovan McNabb has had surgery to repair a sports hernia, as have forward Darren McCarty of the Calgary Flames and

Los Angeles Galaxy soccer players Joseph Ngwenya and Benjamin Benditson.

On average, the athletes Brunt operated on had symptoms for eight months, and most had undergone conservative management and rest during that time. A full 70 percent played at the college or professional level, and 95 percent were men. Because women have a different pelvic structure, they may be less vulnerable to sports hernias, he noted.

The surgery involves a two-inch incision to remove some of the damaged muscle tissue, and instead of a primary repair with stitches, tension-free mesh is used to strengthen and reinforce the area.

"We think the mesh provides considerable support to let the area heal," Brunt said. "Because there's no tension on the repair, this helps athletes return to full physical activity faster than surgery with a sutured repair alone."

The rehabilitation protocol used in the study was developed

by Ray Barile, an athletic trainer for the St. Louis Blues. The graduated program is more structured than others used to return athletes to activity after groin surgery. It starts with early walking and movement and gradually moves athletes to resistance and core muscle building before progressing to speed and functional activities. Athletic trainers, physical therapists and athletes appear to have the most success when they are given well-structured guidelines about what can and can't be expected or allowed at each stage after hernia surgery, Brunt said.

A survey of athletic trainers who treated 21 of the athletes after surgery showed they rated the program highly in its ability to quickly and safely return athletes to their sports.

Brunt and his colleagues have recently accelerated the rehabilitation program to help athletes in midseason get back to competition sooner. This has helped some athletes return to play as early as five weeks after surgery.

## Fat metabolism behind diabetic heart disease

By GWEN ERICSON

Heart disease hits people with diabetes twice as often as people without diabetes. In those with diabetes, cardiovascular complications occur at an earlier age and often result in premature death, making heart disease the major killer of people with diabetes. But why is heart disease so prevalent among diabetics?

To answer that question, School of Medicine researchers have been analyzing the fat (lipid) composition of heart tissue from laboratory mice with diabetes. They have found that heart cells of diabetic mice lose an important lipid from cellular components that generate energy for the heart, and their latest research shows this happens at the very earliest stages of diabetes.

"Diabetic hearts run mostly on fats for fuel because glucose isn't readily available to them," said Richard Gross, M.D., Ph.D., director of the Division of Bioorganic Chemistry and Molecular Pharmacology and professor of medicine, of chemistry and of molecular biology and pharmacology. "Unfortunately, this change in metabolism distorts the lipid composition of cell membranes causing abnormal physical properties and cellular dysfunction."

The important lipid that the researchers found to be decreased in diabetes is cardiolipin, which literally means heart fat. The term was coined because cardiolipin first was discovered in beef hearts and is one of the most abundant lipids in heart tissue. This lipid has unusual physical properties that are essential for the operation of the energy-producing cell structures called mitochondria.

When mitochondria lose a lot of their cardiolipin, they malfunction. Their malfunction not only interferes with the energy supply of heart muscle cells, it also increases the amount of damaging oxygen-containing substances in the cells, creating unhealthy conditions that can lead to heart problems.

Interestingly, a rare genetic disorder — Barth syndrome — held a key to identifying cardiolipin decrease in diabetic hearts. Children born with Barth syndrome have weak hearts and often die young from heart failure. These children have muta-

tions that prevent cells from producing enough cardiolipin. The connection between cardiolipin and heart disease in Barth syndrome led the WUSTL researchers to wonder if cardiolipin was also affected in diabetic hearts.

But in order to measure cardiolipin, the researchers needed a way to distinguish it from the numerous other lipids found in heart cells. Fortunately, Gross and his colleagues have been developing and refining a highly sophisticated set of techniques that allow them to separate and quantify thousands of different lipids based on their subtle structural differences. The set of techniques has been termed "shotgun lipidomics" because they very rapidly determine which lipids are in tissues and blood.

"Shotgun lipidomics provide a precise way to measure changes in heart lipid content," said first author Xianlin Han, Ph.D., assistant professor of medicine. "We found a dramatic depletion of cardiolipin in heart muscle as early as five days

after diabetes was induced in mice."

Gross said, "These results suggest that cardiolipin alterations underlie heart dysfunction in diabetic heart disease and may be a useful biomarker for diagnosing cardiovascular disease in diabetes."

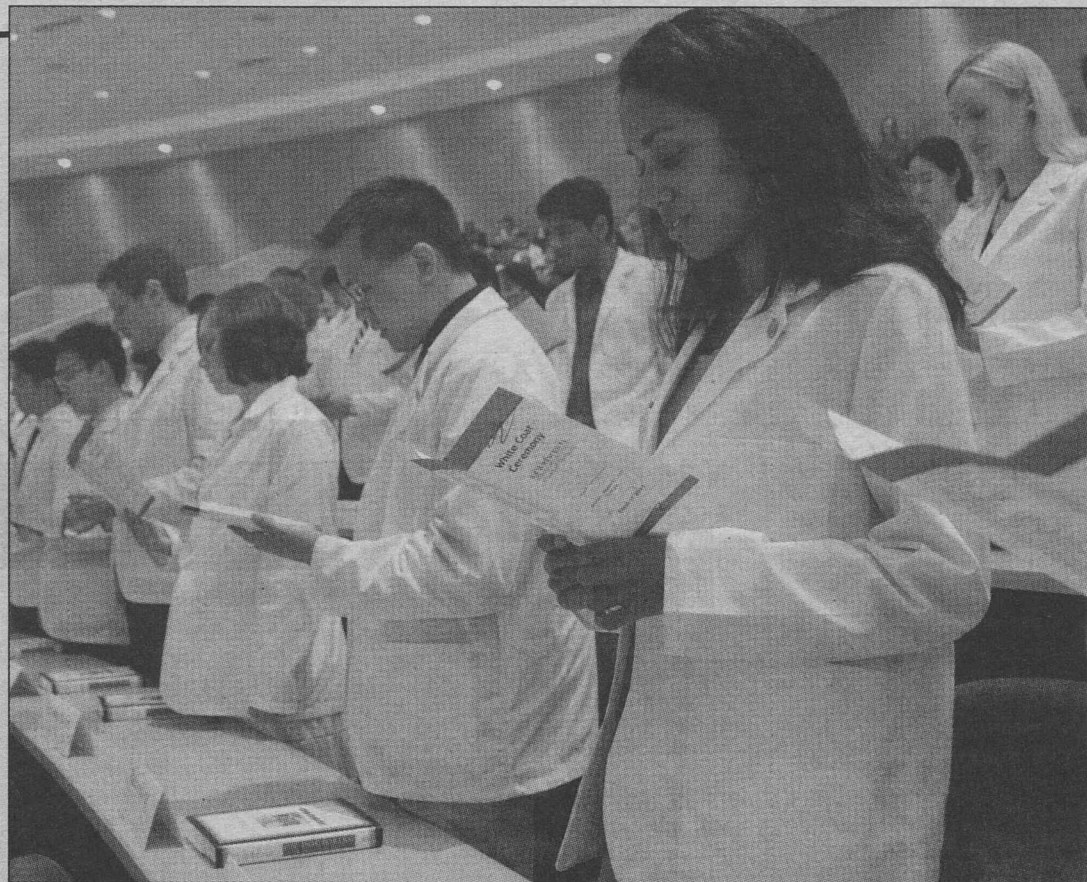
"Measuring alterations may be a way to tell the severity of heart disease and to evaluate how well therapies work. In addition, these findings suggest potential new therapeutic approaches."

Even though the research team found a depletion of an important type of lipid in diabetic heart tissue, diabetic heart muscle cells actually take in excess lipids. But as these lipids enter cells they activate lipid-digesting enzymes. In previous studies, Gross and colleagues identified a particular lipid-digesting enzyme that becomes more active in diabetic heart muscle and contributes to the breakdown of cardiolipin.

"The pieces of the puzzle of diabetic heart disease are now rapidly falling into place," Gross said. "By exploiting the novel technology of shotgun lipidomics, we have identified the increased activation of certain lipid-digesting enzymes and the decrease of cardiolipin as central aspects of this disorder. We hope that these kinds of studies will enable physicians to diagnose diabetic cardiovascular disease sooner and treat it earlier."



Gross



**A new chapter** The School of Medicine Class of 2011 recites an oath of professionalism at the annual White Coat Ceremony Aug. 17 in the Eric P. Newman Education Center. The 123 students wrote the oath in small groups during orientation and then compiled it collectively. At the ceremony, the first-year students were presented with a white coat, a longtime symbol of the medical profession.

## Yokoyama becomes sixth director of MSTP

By BETH MILLER

Wayne M. Yokoyama, M.D., was named director of the Medical Scientist Training Program (MSTP) effective July 1.

Yokoyama, a professor of medicine and of pathology and immunology and a Howard Hughes Medical Institute investigator, becomes the sixth director of the MSTP. He succeeds Daniel Goldberg, M.D., Ph.D., who is stepping down after 10 years as director.

Yokoyama directs a basic research laboratory and is an attending physician on the internal medicine and rheumatology consultation services at Barnes-Jewish Hospital. He has been active in the training of physician-scientists at Washington University and at Mount Sinai School of Medicine in New York. He serves on the thesis committees of other MSTP students and was a member of the University's MSTP committee from 1996 to 2002.

Yokoyama joined Washington University in 1995 as chief of the Rheumatology Division in the Department of Medicine and as the Sam J. Levin and Audrey Loew Levin Chair for Research on Arthritis. In 1997, he was selected in his second national competition to join the Howard Hughes Medical Institute, a non-profit medical research organization. He was recently



Yokoyama

**The MSTP at Washington University is the largest M.D.-Ph.D. program in the nation with 185 students.**

elected to the National Academy of Sciences and the American Academy of Microbiology.

Yokoyama praised Goldberg for his accomplishments as director.

"The MSTP community conveys a special thanks to Dr. Goldberg for his outstanding contributions," Yokoyama said. "Under his leadership, the MSTP at Washington University has continued to grow and thrive with 26 students scheduled to matriculate in this fall's first-year class. During Dr. Goldberg's tenure as director, many former MSTPs have completed their training and now have their own independent laboratories at medical schools and institutions throughout the country."

The MSTP at Washington University is the largest M.D.-Ph.D. program in the nation with 185 students. The program, established in 1969, holds the largest National Institutes of Health predoctoral training grant, which supports 49 students annually. Since it was established, 427 individuals have graduated from the program, and more than 80 percent of graduates are engaged in careers in academic medicine, biotechnology or government research.



## University Events

# Maya Lin opens Assembly Series; schedule will vary

## Other September programs feature mayor, novelist and behavioral scientist

BY BARBARA REA

The Fall 2007 Assembly Series parts with some of the traditions of the 54-year-old lecture series, while maintaining its mission of presenting to the Washington University community some of the most distinctive and vibrant voices of the day.

The main change involves transitioning from the dedicated day and time period — Wednesdays at 11 a.m. — to a variety of days and times when undergraduate students are more likely to be able to attend. Over the years, the once-sacrosanct “free” period has eroded to the point that most students, and faculty as well, cannot attend the lectures.

To address the problem and to find the best times and days to present speakers, the fall 2007 Assembly Series programs will be held at various times and on different days. By the 2008 spring semester, the goal is for the Assembly Series Committee to have a much better understanding of the optimum times to hold the programs.

In addition to this change, the Assembly Series schedule will be published on a monthly basis so that timely updates and more information about the lectures can be provided.

The fall 2007 September lecture schedule follows. All Assem-

bly Series programs are free and open to the public, although specific events may have restrictions.

### Maya Lin

Opening the series on Thursday, Sept. 6, will be the artist-architect-designer Maya Lin, whose talk, “Between Art and Architecture,” will be held at 7:30 p.m. in Graham Chapel. Although the presentation is free, tickets are required for admission; call Edison Theatre Box Office at 935-6543 for details.

From 1981, when the 21-year-old Yale University student won the contest for designing the Vietnam Veterans Memorial, to her current projects featuring sculptures, drawings and large-scale installations, Lin has resisted categorization and has built a remarkable body of work establishing herself as one of the most significant artists of her time. Whether it is a public monument, sculpture, design object, or building, her images are characterized by their harmony of message and material, often blurring the boundaries of art, architecture and design.

Lin’s talk is presented by the Sam Fox School of Design & Visual Arts in collaboration with the Contemporary Art Museum St. Louis, host for her major exhibition, “Maya Lin: Systematic Landscapes” from Sept. 7 through Dec. 30. The exhibition showcases her more recent artistic interests



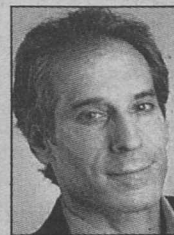
Lin



Booker



Lightman



Sloan

that explore the meaning of landscape in a time of ecological tension and technological change, and express the fragile connection we have to our environment.

She achieved prominence early in her career by literally redefining America’s idea of a memorial. Since then she has continued to create monuments, including the Civil Rights Memorial in Montgomery, Ala., as well as a variety of large-scale, site-specific installations.

Later this year, Lin will receive the 2007 “Twenty-five Year Award” from the American Institute of Architects for the Vietnam Veterans Memorial.

In addition, she recently has been inducted into the National Women’s Hall of Fame, becoming the youngest artist to receive the honor. She also is a member of the American Academy of Arts and Letters and the American Academy of Arts and Sciences. In 2000, she published “Boundaries,” a collection of essays.

Relativity,” explores the theory of relativity in an entertaining way, at 4 p.m. Sept. 19 in Graham Chapel.

Lightman’s other fictional works include “Good Benito” and “The Diagnosis,” which was a finalist for the 2000 National Book Award. A new book, “Ghost: A Novel,” will be released in October. He teaches in the Massachusetts Institute of Technology Program in Writing and Humanistic Studies.

### Richard Sloan

Religious faith is undoubtedly a comfort, but does it have curative powers? Sloan addresses the controversial question, “Is Religion Good for Your Health?” at 11 a.m. Sept. 26 in Graham Chapel.

In his book, “Blind Faith: The Unholy Alliance of Religion and Medicine,” Sloan acknowledges the widespread belief among patients and doctors alike, but asserts there is no empirical evidence to support it, and argues that mixing religion and medicine does potentially more harm than good.

For a complete list of fall semester programs, or for updated information, visit the Assembly Series at [assemblyseries.wustl.edu](http://assemblyseries.wustl.edu) or call 935-5285.

To receive timely e-mail announcements for Assembly Series programs, sign up at [news-info.wustl.edu/pme.php](http://news-info.wustl.edu/pme.php).

## Fall Reading Series • Social Networking • Laws of War

“University Events” lists a portion of the activities taking place Aug. 30-Sept. 13 at Washington University. Visit the Web at [webevent.wustl.edu](http://webevent.wustl.edu) for expanded calendars for the Danforth Campus ([webevent.wustl.edu](http://webevent.wustl.edu)) and the School of Medicine ([medschool.wustl.edu/calendars.html](http://medschool.wustl.edu/calendars.html)).

## Exhibits

“Horse Series.” Abstract images of Clydesdale horses by Robert Boston, School of Medicine photographer. Through fall. Farrell Learning and Teaching Center, 520 S. Euclid Ave., Lvl. 2.

## Lectures

### Tuesday, Sept. 4

5:30 p.m. Biophysical Evenings Seminar. “Membranes: Barrier/Gateway of Eukaryotic Cells.” Paul Schlesinger, assoc. prof. of cell biology & physiology. Cori Aud., 4565 McKinley Ave. 362-4152.

### Wednesday, Sept. 5

8 a.m.-5 p.m. St. Louis STD/HIV Prevention Training Center Course. “STD Update.” (Continues 8 a.m.-5 p.m. Sept. 6.) Cost: \$75. For location and to register: 747-1522.

8:15 a.m.-10:30 a.m. Center for the Application of Information Technology Executive and Management Forum. “Unleashing the Power of Social Networking in the Enterprise.” Jeff Schick, vice pres. of social software, IBM. Eric P. Newman Education Center. 935-4444.

### Thursday, Sept. 6

4 p.m. History Colloquium. “Writing Freedom: An African Mother and Her Children in the Era of the Haitian Revolution.” Rebecca J. Scott, prof. of history, University of Michigan. (Reception follows.) Duncker Hall, Rm. 201, Hurst Lounge. 935-5450.

### Saturday, Sept. 8

8 a.m.-12:30 p.m. Critical Care CME Course. “Annual St. Louis Critical Care Update.” Cost: \$45; \$55 after Aug. 30. St. Louis Marriott West, 660 Maryville Centre Drive. To register: 362-6891.

### Monday, Sept. 10

Noon. Work, Families and Public Policy Brown Bag Seminar Series. “Children With Disabilities and Their Families.” Dennis P. Hogan, prof. of sociology, Brown U. Eliot Hall, Rm. 300. 935-4918.

4 p.m. Immunology Research Seminar Series. “Innate Regulation of Dendritic Cell Function.” Caetano Reis e Sousa, London Research Institute. Farrell Learning & Teaching Center, Connor Aud. 362-2763.

### Tuesday, Sept. 11

10 a.m.-6:30 p.m. Cardiac MRI CME Course. “Cardiovascular MR: Hands-on Experience & Case Presentations.” (Continues 8:30 a.m. Sept. 12; 8 a.m. Sept. 13; 8:30 a.m. Sept. 14.) For cost, location and to register, call 362-6891.

Noon. Program in Physical Research Seminar. “Role of Estrogen Metabolism on Bone Mass and Body Composition.” Nicola Napoli, Program in Physical Therapy. 4444 Forest Park Blvd., Lower Lvl., Rm. B108. 286-1404.

### Wednesday, Sept. 12

8:30 a.m.-4 p.m. Center for the Application of Information Technology Workshop. “Collaboration in Action.” (Continues 8:30 a.m.-4 p.m. Sept. 13.) Cost: \$1,210; reduced fees available for CAIT member organizations. CAIT, 5 N. Jackson Ave. 935-4444.

4 p.m. History Colloquium. “Might Versus Right: The German Foreign Office and the Laws of War in 1914.” Isabell U. Hull, prof. of history, Cornell U. (Reception follows.) Duncker Hall, Rm. 201, Hurst Lounge. 935-5450

### Thursday, Sept. 13

Noon. Genetics Seminar. “RNA Polymerase IV and the Nuclear siRNA Pathway for Gene Silencing in Arabidopsis.” Craig S. Pikaard, prof. of biology. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

3 p.m. Siteman Cancer Center Basic Science Seminar Series. Matthew J. Ellis, assoc. prof. of medicine. Eric P. Newman Education Center. 454-7029.

4 p.m. Vision Science Seminar Series. “Preventing Nuclear Cataracts: Ascorbic Acid and the Vitreous Gel Protect the Lens From Oxygen Exposure.” David C. Beebe, prof. of cell biology and physiology. Maternity Bldg., Rm. 725. 362-3315.

8 p.m. The Writing Program Fall Reading Series. Peter Orner, author, will read

## How to submit ‘University Events’

Submit “University Events” items to Angela Hall of the *Record* staff via:

- (1) e-mail — [recordcalendar@wustl.edu](mailto:recordcalendar@wustl.edu);
- (2) campus mail — Campus Box 1070; or
- (3) fax — 935-4259.

Deadline for submissions is noon on the Thursday eight days prior to the publication date.

from his works. Hurst Lounge, Room 201 Duncker Hall. 935-7130.

## Sports

### Saturday, Sept. 1

9 a.m. WU Early Bird Meet. Men’s and women’s cross country. Central Fields. 935-4705.

6 p.m. Football vs. Lake Forest College. Francis Field. 935-4705.

### Thursday, Sept. 6

7 p.m. Men’s soccer vs. Westminster College. Francis Field. 935-4705.

### Friday, Sept. 7

3 p.m. Volleyball vs. Ohio Northern U. Washington University National Invitational. Athletic Complex. 935-4705.

8 p.m. Volleyball vs. Central College, IA. Field House. Washington University National Invitational. Athletic Complex. 935-4705.

### Saturday, Sept. 8

10 a.m. Volleyball vs. Wittenberg U. Washington University National Invitational. Athletic Complex. 935-4705.

3 p.m. Volleyball vs. Concordia U.-Moorhead. Washington University National Invitational. Athletic Complex. 935-4705.

7 p.m. Men’s soccer vs. Truman State U. Francis Field. 935-4705.

### Tuesday, Sept. 11

7 p.m. Women’s soccer vs. Principia College. Francis Field. 935-4705.

## Kemper Art Museum to present panel discussion on ‘Window | Interface’

Artist Peter Campus to join curators Eckmann, Koepnick

BY LIAM OTTEN

Groundbreaking video artist Peter Campus will participate in a panel discussion at 6 p.m. Friday, Aug. 31, in Steinberg Hall Auditorium, that is being held in conjunction with the opening of the exhibition “Window | Interface.”

He will be joined by the exhibition’s co-curators, Sabine Eckmann, Ph.D., director and chief curator for the Mildred Lane Kemper Art Museum, and Lutz Koepnick, Ph.D., the museum’s curator for new media and professor of German and of film and media studies, both in Arts & Sciences.

“Window | Interface,” which features works by Campus, explores the ways in which electronic windows and interfaces — for example, video screens, computer monitors and cell phone displays — have come to structure the practice and experience of art today.

The exhibition opens immediately after the panel discussion with a reception from 7 to 10 p.m. in the Kemper Art Museum.

Campus is a pioneer in both video art and computer-enhanced digital photography. In the early 1970s, his experimentation with studio shooting and

video technology — in works such as “Prototype for Interface” (1972), included in the exhibition — opened up a vast new set of tools for artistic practice while advancing the conceptual potential of video art.

Campus’ closed-circuit installations, videotapes and photography have been exhibited internationally, with one-person shows at the Museum of

Modern Art and the Whitney Museum of American Art, both in New York, and at the Institute of Contemporary Art in Philadelphia. Major group exhibitions include the Venice Biennale and Documenta

in Kassel, Germany. He is a clinical associate professor of art and art education as well as artist-in-residence at New York University.

Both the panel discussion and the reception are free and open to the public. “Window | Interface” will remain on view through Nov. 5. Regular hours are 11 a.m. to 6 p.m. Mondays, Wednesdays and Thursdays; 11 a.m. to 8 p.m. Fridays; and 11 a.m. to 6 p.m. Saturdays and Sundays. The museum is closed Tuesdays.

For more information, call 935-4523 or visit [kemperartmuseum.wustl.edu](http://kemperartmuseum.wustl.edu).

“Window | Interface,” which features works by Campus, explores the ways video screens, computer monitors and cell phone displays have come to structure the practice and experience of art today.



# 560 Music Center: 'A welcome addition'

Chamber Orchestra, 'Piano Extravaganza' highlight Department of Music's fall series

By LIAM OTTEN

The Department of Music in Arts & Sciences will launch its fall 2007 concert series with "4 x 4," a performance by the Washington University Chamber Orchestra.

The program — which begins at 8 p.m. Tuesday, Sept. 4, in Holmes Lounge, Ridgley Hall — will feature concertos written for four instruments, including Concerto in B minor for four violins by Antonio Vivaldi (1678-1741); Concerto for four flutes by Johann David Heinichen (1683-1729); and *Le Phénix* for four cellos by Michel Corrette (1707-95).

The concert is free and open to the public. The Chamber Orchestra is led by Elizabeth Macdonald, director of strings in the Department of Music.

Dolores Pesce, Ph.D., professor and chair of the music department, notes that the department presents approximately 70 events each year, ranging from intimate student and faculty recitals to major concerts by the department's 10 performance organizations.

"Our students and ensembles represent a wide range of musical styles — everything from small jazz combos to the Baroque, Classical, Romantic and Modern repertoires," Pesce said. "Performers are drawn from across the entire University community and include both undergraduates and graduate students, regardless of academic concentration, as well as alumni, faculty, staff, spouses and community musicians."

Pesce points out that the centerpiece of the fall schedule is the "Piano Extravaganza" on Oct. 28. The concert will feature more than 10 student, faculty and alumni pianists — including Seth Car-

lin, professor of music — guest-conducted by Leonard Slatkin, music director of the National Symphony Orchestra and former music director for the Saint Louis Symphony Orchestra. The program will feature works by Wagner, Sousa, Bach, Walton, Grieg, von Suppé, Poulenc and Rachmaninoff, as well as a new composition by the department's own Martin Kennedy, assistant professor of music.

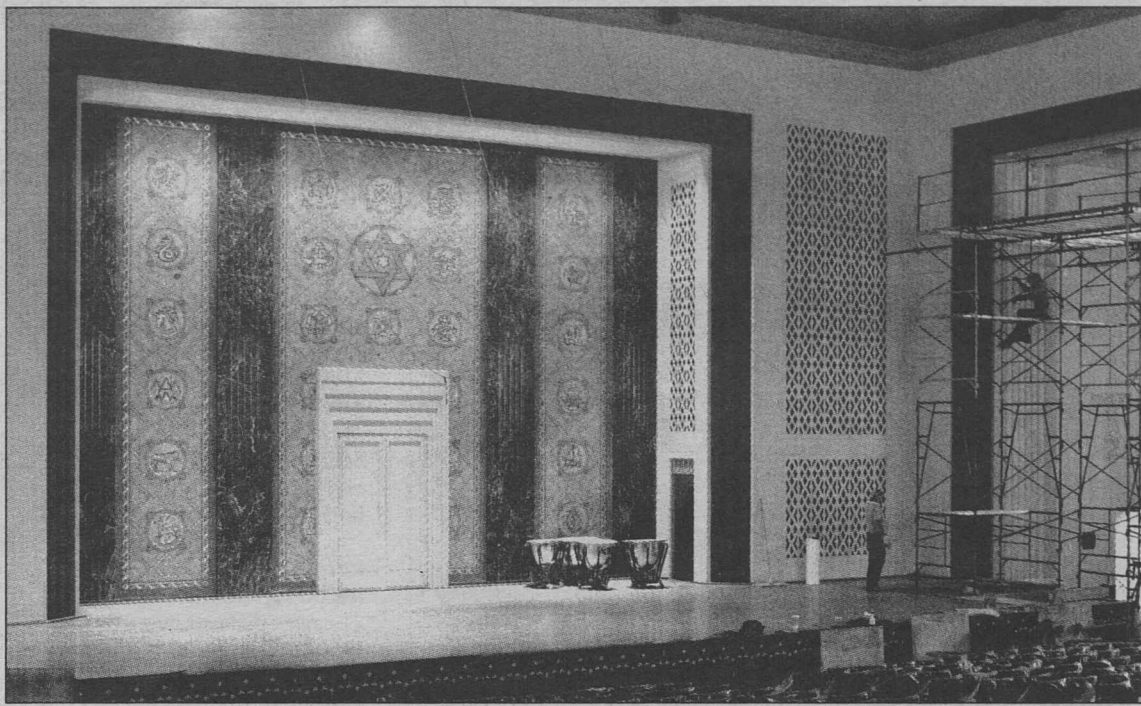
"The 'Piano Extravaganza' marks the formal opening of the University's newly renovated 560 Music Center," Pesce said. "It's also a fund-raiser for the department, with proceeds going to purchase new pianos for the center's teaching, performance and rehearsal spaces. It should be a terrific event."

The 560 Music Center, located at 560 Trinity Ave. in University City, was acquired by Washington University in 2005 and previously housed Webster University's Community Music School.

Dedicated in 1929, the two-story, 45,000-square-foot structure (originally built as a synagogue) houses three performance venues — including the 1,115-seat E. Desmond Lee Concert Hall, now the University's largest performance space — as well as teaching studios, rehearsal spaces and administrative offices for the music department.

"The 560 is a welcome addition to Washington University's arts facilities," Pesce added. "It eases pressure on our existing performance spaces while also giving us a major new presence in the heart of the Delmar Loop."

"It's going to be a wonderful facility for the public and for students and faculty, many of whom live nearby."



Workers continue to renovate the 1,115-seat E. Desmond Lee Concert Hall in the 560 Music Center. The formal opening takes place Oct. 28 with the gala "Piano Extravaganza."

## Department of Music fall concert series

### Washington University Chamber Orchestra

Holmes Lounge, Ridgley Hall  
8 p.m. Sept. 4

### Washington University Symphony Orchestra

E. Desmond Lee Concert Hall  
The 560 Music Center,  
560 Trinity Ave.  
3 p.m. Oct. 7

### Liederabend with Jennifer Jakob, soprano

Graham Chapel  
3 p.m. Oct. 14

### Washington University Jazz Band

Holmes Lounge, Ridgley Hall  
8 p.m. Oct. 24

### "Piano Extravaganza," conducted by Leonard Slatkin

E. Desmond Lee Concert Hall  
The 560 Music Center,  
560 Trinity Ave.  
7 p.m. Oct. 28

Tickets: \$25, or \$10 for WUSTL students.

Available through the Edison Theatre Box Office,  
935-6543.

### Seth Carlin, piano recital

E. Desmond Lee Concert Hall  
The 560 Music Center,  
560 Trinity Ave.  
8 p.m. Nov. 17

### Washington University Symphony Orchestra

E. Desmond Lee Concert Hall  
The 560 Music Center,  
560 Trinity Ave.  
3 p.m. Nov. 18

### "Guitar Gala"

Graham Chapel  
8 p.m. Dec. 6

### Washington University Concert Choir

Graham Chapel  
7:30 p.m. Dec. 8

### "Messiah" Sing-Along

Graham Chapel  
3 p.m. Dec. 9

### Washington University Flute Choir

Graham Chapel  
8 p.m. Dec. 10

### Washington University Chamber Ensemble

Graham Chapel  
8 p.m. Dec. 11

### Washington University Jazz Band

Holmes Lounge, Ridgley Hall  
8 p.m. Dec. 12

### Washington University Opera

Umrath Hall Lounge  
8 p.m. Dec. 14 and 15

All events are free and open to the public unless otherwise noted. For more information, call 935-4841 or e-mail [kschultz@artsci.wustl.edu](mailto:kschultz@artsci.wustl.edu).



**Celebrating education** A group of Jewish educators becomes spirited during a session of the annual Coalition for the Advancement of Jewish Education (CAJE) conference held on the Danforth Campus Aug. 2-9. More than 1,300 educators from all grades and around the nation and world gathered at WUSTL, participating in more than 450 classroom sessions around the campus. The CAJE conference, held annually at a different American university, draws more Jewish educators than any other similar event.

## Sports

### WU Athletics ranks 12th in NCSA

The National Collegiate Scouting Association (NCSA) announced its fifth annual Collegiate Power Rankings Wednesday, Aug. 15, and Washington University finished in 12th place on the list of top academic and athletic colleges and universities in the country.

The list includes all schools at the NCAA Division I, II and III levels. Washington University also finished first within the University Athletic Association (UAA) and fourth in the Division III rankings.

Williams College ranked first in the overall standings, with Amherst College, Duke University, the University of California-San Diego and the University of Notre Dame rounding out the top five.

Washington University won eight UAA championships and sent eight teams to the NCAA Tournament in 2006-07.

A total of eight WU programs earned top-10 NCAA finishes: softball (second), volleyball (second), women's basketball (second), men's basketball (third), women's cross country (fourth), men's tennis (tied-fifth), women's swimming and diving (seventh) and women's soccer (tied-ninth). The Bears also placed 18th in men's cross country and men's swimming and diving, tied for 28th in women's indoor track

and field, tied for 33rd in baseball and men's soccer, and 56th in women's outdoor track and field.

### Bears football picked second in UAA

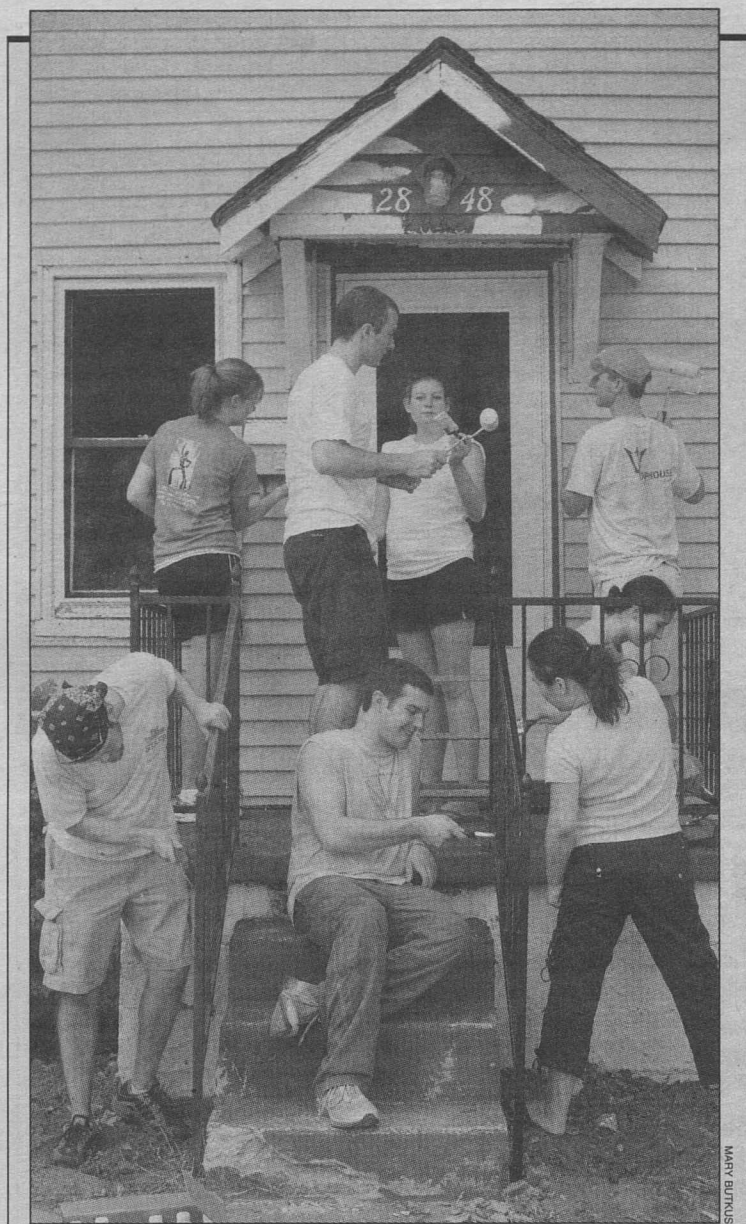
The Washington University football team was picked second in the 2007 University Athletic Association (UAA) Preseason Conference Coaches' Poll, as announced by the conference office.

Carnegie Mellon University, which posted a 10-0 regular season record en route to a berth to the NCAA Division III Championship last season, is favored to defend its UAA championship. The Tartans collected three first-place votes in tallying 15 points.

Eight-time UAA champion Washington University and Case Western Reserve University were the coaches' picks to finish tied for second place, each totaling nine points with the Bears picking up the remaining first-place vote. The University of Chicago was chosen to finish fourth in this year's standings, earning three points.

The Bears finished the 2006 season with a 6-4 overall record and placed second in the UAA. Washington U. won four of its last five games to secure a school-record 14th-consecutive winning season. The 2007 season opener is at home Sat., Sept. 1, at 6 p.m. against Lake Forest College.





**Paint before precedents** First-year law students help spruce up a home in north St. Louis County as part of Washington University School of Law's sixth annual Orientation Service Project. This group worked with a local community organization called Beyond Housing, while 200 other first-years took time out of their day to help nearly 20 organizations in the St. Louis area.

## Software

**More Mars data than ever before**  
— from Page 1

that pinpoints areas down to 15 meters — or 48 feet — in 544 “colors” of reflected sunlight.

The camera also has mapped about half of the planet at lower resolution — showing areas at some 200 meters (660 feet) in 72 colors — and monitored abundances of atmospheric gases and particulates in the atmosphere, returning more than 950 separate measurements that track seasonal variations.

“The Mars Reconnaissance Orbiter is collecting more data, and carrying out more complex observation plans, than any other mission to Mars,” Arvidson said. “Orbital Data Explorer augments existing tools on the PDS site by providing advanced search, retrieval and order capabilities, as well as integrated analysis and visualization tools that will make it easier to examine and compare data from

MRO and other missions.”

Led by scientists at the Johns Hopkins University Applied Physics Laboratory (APL) in Laurel, Md., the CRISM team already has delivered the first display of these observations to the NASA Planetary Data System. They are available at <http://pds-geosciences.wustl.edu/missions/mro/crism.htm>, along with several tools that make the data accessible to Web users.

Over its two-year primary mission, the orbiter will send back more data than all previous Mars missions combined. The first CRISM package, posted in the Planetary Data System's Geosciences section, contains about 410 gigabytes of data — enough to fit on nearly 600 compact discs.

“CRISM is opening new areas of discovery on Mars and uncovering evidence of how water altered the planet over billions of years,” said Scott Murchie, CRISM principal investigator at the APL.

For more information about the Mars Reconnaissance Orbiter, visit [nasa.gov/mro](http://nasa.gov/mro).

## Garage

**Parking spaces increase on campus**  
— from Page 1

Yellow and red parking passholders will be able to access and exit the garage and have been given card access at all times. Brown, blue, evening, off-site and after-hours passholders have been given card access for times specific to their parking type.

The daily scratch-off pass will not work in the garage but can still be used in other yellow zones on the Danforth Campus.

Visitors will need to pull a ticket from a dispenser upon entering the garage. The charge is \$1 per hour with a maximum of \$5 per day. Upon exit, payment can be submitted to the booth attendant or the exit pay station.

There is a 10-minute grace period for vehicles needing to pull past the gate to turn around. Those vehicles will not be charged.

Temporary stairwells are located at the northeast and northwest corners of the garage. The permanent elevator cores are currently closed and will not be available for use until the University Center opens. There will be no zoned disabled parking until the elevators are open.

For more information, call 935-5601.

## ‘Korean Comics: A Society Through Small Frames’ opens at Kemper Art Museum

Rare U.S. exhibition of North and South Korean work

Recent years have seen an explosion of interest in Japanese manga, or comic books, in the United States, yet Korean comics remain relatively unknown. This fall, the Mildred Lane Kemper Art Museum will present “Korean Comics: A Society Through Small Frames,” a rare U.S. exhibition of work from both North and South Korea.

Organized and curated by The Korea Society, “Korean Comics” features more than 80 works by 21 cartoonists, drawn from the 1950s to the 1990s. The exhibition provides a decade-by-decade glimpse of the evolving social realities in contemporary Korea, as depicted in comics ranging from popular children's entertainment to aggressive forms of political commentary.

South Korean artists such as Park Jae Dong, who produced serials for the liberal newspaper Hankyoreh, have illuminated social ills as well as the changing political landscape — territory often overshadowed by the nation's overwhelming economic success.

Park Ki Jeong, whose disparagement of the government in works such as “Tojonja (Challenger)” (1964) garnered much attention throughout the 1960s, explained that “metaphor and satire are the essence of news criticism.” In the 1980s, Lee Hyun Se's series “A Daunting Team” condemned the affairs of the weakening military dictatorship while simultaneously masquerading as a sports drama centered on a rebellious, unkempt baseball player.

North Korean comics also captured their country's economic hardships and strict ideological



“The Great General Mighty Wing” (1994) by Lim Wal Yong and Cho Pyong Kwon. Courtesy of the Korea Society.

controls. “The Great General Mighty Wing” (1994), by Lim Wal Yong and Cho Pyong Kwon, was published shortly after the death of Kim Il Sung, the nation's ruler of 46 years, and portrays devout socialists as fruitful, loyal honeybees, thus reinforcing the reader's attachment to North Korea's leadership during a period of political change.

Other North Korean comics exalt the prestige of the motherland through major figures in the international wrestling circuit. One such

series, “World Professional Wrestling King Ryok To San” (1995), by Kim Tae Kwon, is a biographical comic of a famous North Korean wrestler who is glorified as a figure capable of defeating foreigners and defending the country's honor.

Taken together, these works present a portrait of Korean civil society as both vigorous and engaged, continuously challenging and energizing the status quo in whimsical and provocative ways. In so doing, they play an important role in characterizing and distinguishing the culture and sentiment of contemporary Korea.

“Korean Comics: A Society Through Small Frames” will open Friday, Aug. 31, and remain on view through Dec. 17 in the Kemper Art Museum's Teaching Gallery. The exhibition is free and open to the public. Regular hours are 11 a.m.-6 p.m. Mondays, Wednesdays and Thursdays; 11 a.m.-8 p.m. Fridays; and 11 a.m.-6 p.m. Saturdays and Sundays. The museum is closed Tuesdays.

For more information, call 935-4523 or visit [kemperartmuseum.wustl.edu](http://kemperartmuseum.wustl.edu).

## Mandelker receives ABA Lifetime Achievement Award

Daniel R. Mandelker, J.D., the Howard A. Stamper Professor of Law, received the American Bar Association's (ABA) prestigious Daniel J. Curtin Lifetime Achievement Award. The award recognizes outstanding service in the field of state and local government law.

The award is given annually and is co-sponsored by the ABA's Section of State and Local Government Law and the Jefferson Fordham Society. Mandelker received the award at the ABA's annual meeting in San Francisco Aug. 10.

Mandelker is one of the country's leading scholars and teachers in state and local government and land use law. Also a pioneer in the teaching of environmental law, he has published numerous books and articles. These include his co-authored casebooks, “Planning and Control of

Land Development” and “State and Local Government in a Federal System,” both in their sixth editions, and “Land Use Law,” a comprehensive treatise in this field.

Among his recent professional activities, Mandelker was the principal consultant and contributor to the American Planning Association's model planning and zoning legislation project, served as legal consultant to the New Orleans' Bureau of Governmental Research on its post-Katrina planning study, and is a member of a joint ABA committee studying the administrative and judicial review process in land use decision-making.

The American Planning Association also recently published his report on planned unit developments, which provides guidance on the regulation of planned communities.

A fellow of the American Institute of Certified Planners, he teaches Land Use Law; State and Local Government; and Environmental and Land Use Litigation.



Mandelker

## Partnerships

**New initiative sponsors graduate students**  
— from Page 1

rest of the delegation on this trip.”

During the visit to Santiago, Chile, Wrighton and the other members of the delegation participated in a bilateral discussion with Chilean President Michelle Bachelet at the Presidential Palace.

They also met with the Minister of Education Yasna Provoste and the Minister of Foreign Affairs Alejandro Foxley, who discussed a new initiative to sponsor up to 100 doctoral students from diverse backgrounds for study in the United States.

The chancellor recently endorsed the initiative between the U.S. Department of State and the

Chilean Foreign Ministry that will target highly talented Chileans for graduate work in U.S. universities in fields that are vital to Chile's future: science and technology, environment and public health.

“Washington University's interests in international higher education led me to enthusiastically endorse this initiative,” said Wrighton.

“We welcome the opportunity to participate, and look forward to having talented students from Chile apply for admission to our Ph.D. programs.

“We already enjoy relationships in Chile with our undergraduate study abroad programs, and we have a substantial number of alumni — both from undergraduate and graduate programs — in Chile and Latin America, broadly,” Wrighton added.

While in Chile, Wrighton, Secretary Spellings and President Gregory L. Geoffroy of Iowa State

University addressed members of the Federation of Chilean Industry, highlighting the importance of international education and private-sector partnerships in 21st-century workforce development.

In addition, the delegation participated in an awards ceremony for more than 250 Chilean post-graduate students receiving scholarships to study abroad, and met with Fulbright Program alumni, who shared their experiences of studying in the United States.

Wrighton did not travel on to Brazil because he didn't want to miss orientation activities for the freshman class, including delivering the welcome address at last Thursday's Convocation. He had visited Brazil earlier this summer, participating in a joint U.S.-Brazil summit on innovation, organized by the U.S. Council on Competitiveness and its counterpart in Brazil.



## Notables

### Fulbrights awarded to twelve WUSTL students

By NEIL SCHOENHERR

**T**welve WUSTL students have been awarded Fulbright Scholarships for the 2007-08 academic year, announced Priscilla Stone, Ph.D., executive director of international programs in Arts & Sciences.

Eight are recently graduated seniors, and four are current graduate students. They will spend a full academic year in a host country.

The graduate students, along with their fields and locations of study, are: Lee Friedrich, comparative literature, Japan; Theodore Jackson, literature, Germany; Clare Masson, social work, Chile; and Sharyn Routh, social work, Guinea.

The recently graduated seniors are: Liza Baron, Islamic studies, Morocco; Kevin Crouse, teaching English as a foreign language, Malaysia; Sarah Dolembro, theatre, Italy; Danielle Matilsky, public health, Malawi;

Mary Meyer, teaching English as a foreign language, Germany; Annie Moss, teaching English as a foreign language, Venezuela; Rosalind Moussa, musical instrument training, Belgium; and Aine Steiner, teaching English as a foreign language, Germany.

"We are very pleased and honored that so many WUSTL students have been chosen for this very competitive award," said Amy Suelzer, Ph.D., the University's Fulbright Program adviser.

"The number of awards reflects the tremendous talent and accomplishment of our graduate and undergraduate students. We wish our Fulbright recipients much success in their Fulbright year and beyond."

The Fulbright Program is designed to increase mutual understanding between the people of the United States and the people of other countries. Under the program, 1,125 American students have been offered grants to study and conduct research in 155 countries throughout the world, beginning this fall. The program, established in 1946, is sponsored by the U.S. Department of State.

More than 105,000 Americans have held Fulbright grants since the program's inception. This year's awardees come from all 50 states as well as the District of Columbia and Puerto Rico. They are drawn from a diverse cross-section of American higher education, with more than 250 institutions represented.



**Service through song** Judy O'Leary (right), administrative assistant in the Center for the Study of Ethics and Human Values, sings karaoke with a resident of Mary Ryder Home in St. Louis as part of the annual United Way 'Days of Caring' event. The citywide service program gives employees an opportunity to participate in volunteer activities during work hours. The University also sent employees to University City Children's Center and Hope Lodge.

## Obituary

### Hodges, former head of neuroradiology, 84

By BETH MILLER

**F**red J. "Ted" Hodges III, professor emeritus of radiology and one of the founders of the neuroradiology section at the Mallinckrodt Institute of Radiology, died Thursday, Aug. 9, 2007, at his home in Webster Groves, Mo., following treatment for an inoperable brain tumor. He was 84.



Hodges

Hodges came to the School of Medicine's Mallinckrodt Institute of Radiology in 1957 as an assistant professor of radiology. That same year, he helped found the

institute's program in neuroradiology, which was a novel field in the United States at the time. He was named head of the section in 1958.

While at Mallinckrodt Institute of Radiology, Hodges received a National Institutes of Health Fellowship in Neuroradiology and spent one year in Sweden. He left the School of Medicine in 1966 to become chief of neuroradiology at Johns Hopkins Hospital in Baltimore, but returned to the School of Medicine in 1980 as professor of neuroradiology. He retired in 2003.

In 1975, Hodges served on the panel of consultants to the Commission on CIA Activities within the United States, reviewing the circumstances of the assassination of President John F. Kennedy.

"Ted Hodges was a role model

for all of us, faculty and students alike," said R. Gilbert Jost, M.D., the Elizabeth E. Mallinckrodt Professor and head of the Department of Radiology and director of the Mallinckrodt Institute of Radiology. "His quiet, gentle manner, his dedication, his diligence and his characteristics as an outstanding physician and human being are qualities that were admired by all who knew him."

Hodges is survived by his wife, Genny; sons Fred J. IV and Thomas of Minneapolis; and a brother, John, of Painted Post, N.Y.

A memorial service was held Aug. 17 at Webster Groves Presbyterian Church. Memorial contributions may be made to the Webster Groves Presbyterian Church, 45 W. Lockwood, Webster Groves, Mo., 63119.

## Campus Authors

Anita Minor, clinical research coordinator in the Division of Clinical and Translational Research in the Department of Anesthesiology

### Gifts: Mothers Reflect on How Children with Down Syndrome Enrich Their Lives

(Woodbine House, 2007)

**W**hen Anita Minor discovered she was pregnant with a child with Down Syndrome, she went searching for others like her in the same situation.

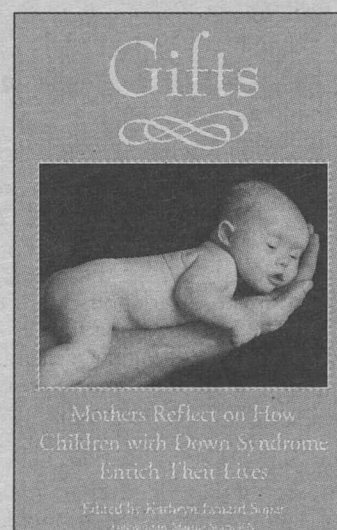
Minor was 38 when she became pregnant with her son, now an active 2-and-a-half-year old. Her youngest child was 7 years old at the time, and the pregnancy was a shock to Minor and her husband. During an ultrasound, doctors discovered the baby had a hole in his heart. Because of her medical background, Minor thought to herself, "I bet my baby has Down Syndrome."

"My way of coping with things is to do research," Minor said. "I went online to find pictures of African-American children with Down Syndrome and could only find two. So I started wondering if I was the only one dealing with this."

Minor got involved with an online support group, and eventually contacted the Down Syndrome Foundation about starting a support group in north St. Louis County for families with children who have Down Syndrome. She said she hoped her presence also would encourage more African-Americans to come forward and participate in the Down Syndrome Association of Greater St. Louis.

It was through her involvement with the support group that she was asked to contribute a chapter to the book "Gifts: Mothers Reflect on How Children with Down Syndrome Enrich Their Lives."

The book includes chapters



by a diverse group of women who discuss the gifts that their child with Down syndrome has brought into each of their lives. Minor's chapter, called "Lifting Each Other," focuses on her need to find other African-American families who had children with Down Syndrome.

"Since I wrote the chapter, I've been contacted by women from all over the United States and around the world," she said. "It was an opportunity to let more people know that others are dealing with this. I had fears about what my child would be like, and to have the brilliant little boy I have now is overwhelming. I wrote it to let others know it's OK to go through grief and feel angry. It doesn't mean you're a bad mom or dad, just that you need to deal with that, move on and learn to handle what's been thrown your way."

— Beth Miller

### Protein Level variations common in people — from Page 1

the proximal part of the intestine, as normally occurs, the distal intestine packages those fats very differently.

"The proximal intestine makes molecular packages called chylomicrons," she said.

"These bundles that contain lipids and proteins transport these molecules from the intestine to other parts of the body. CD36, which is abundant in the proximal intestine, turns out to play a role both in absorbing fatty acids and cholesterol and in packaging these lipids into chylomicron bundles that facilitate their use throughout the body."

When no CD36 was present in the genetically altered

mice in Abumrad's study, the lipids were absorbed more slowly since they had to travel to lower parts of the intestine. And rather than being bundled into chylomicrons, the lipids were released as parts of smaller particles that are not as easily absorbed by other tissues as the chylomicrons.

For years, Abumrad has studied how CD36 modulates the acute and chronic responses of muscle and fat cells to energy fluctuations and other stresses. Her goal is to translate her findings from rodents into humans.

"There is evidence that people have different amounts of CD36 and that mutations in the gene are quite common," she said. "Those variations are associated with abnormalities of blood lipids, with high levels of fatty acids in the blood, abnormal blood triglycerides and increased risk of diabetes-associated heart disease. It's clear that some of us have different

amounts of this protein in different tissues, and some individuals don't have any of it."

Although scientists in Abumrad's laboratory say it may be possible eventually to help people lose weight by interfering with the CD36 protein, they first want to learn more from the mouse. Currently, they work with mice that cannot make CD36 anywhere in their bodies.

But because the protein also operates in heart tissue and skeletal muscle, disabling CD36 everywhere can have detrimental effects. So the team is working to develop a new kind of mutant mouse that can make CD36 everywhere except in the intestine.

"If we find that such a mouse still has delayed absorption of fatty acids and cholesterol and ends up eating less fat, we'll have more evidence that this might be a good approach to use in humans," she said.



## Washington People

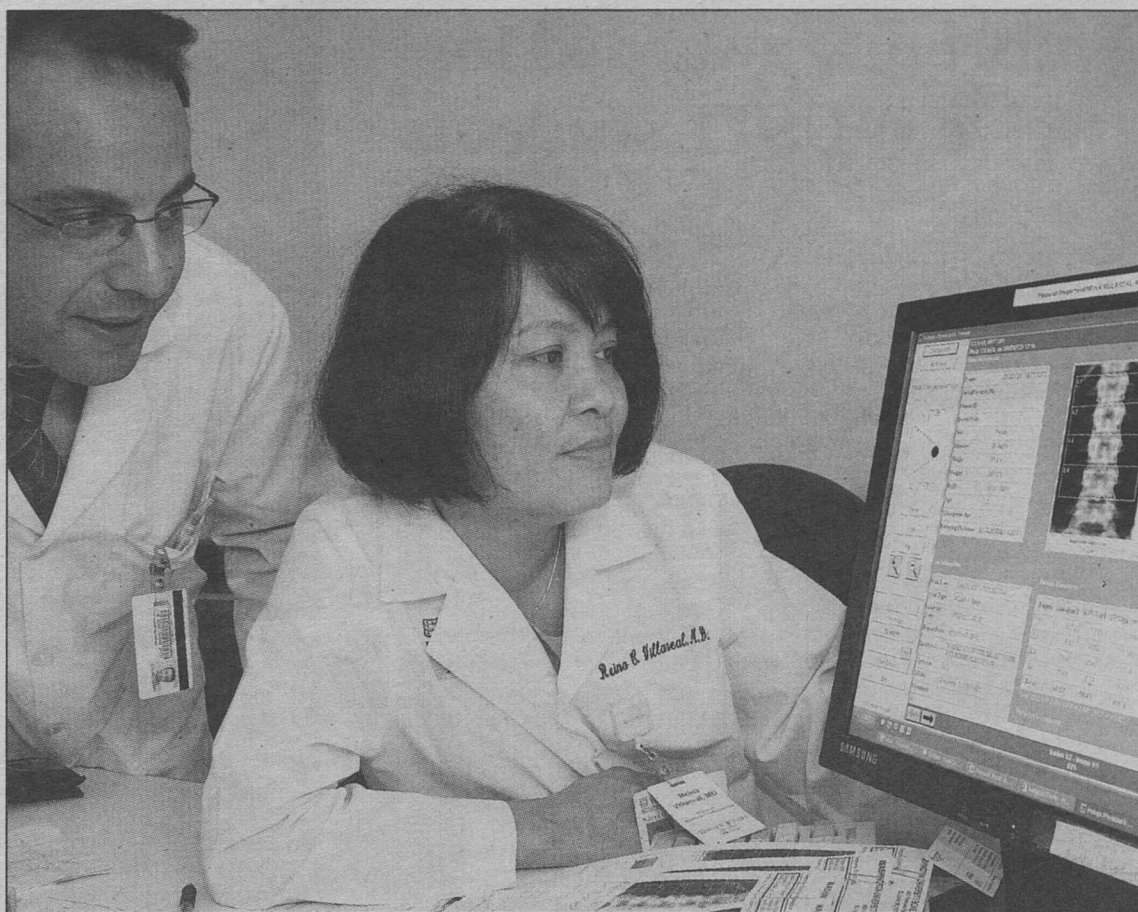
**A** 2004 report by the surgeon general warned that by 2020 half of all American citizens older than 50 could be at risk for fractures from osteoporosis and low bone mass.

As an endocrinologist who conducts research on bone health, Reina Armamento-Villareal, M.D., has seen the devastating impact of osteoporosis on patients — a hip fracture can result in death or disability 60 percent of the time.

"People used to just accept weakening of the bones as a normal part of aging, and in the past it didn't affect so many people because we didn't live as long," she says. "But with our longer life spans now, unless we find better ways to treat and prevent osteoporosis many more people will face significant disability in old age. I'm really interested in what I can do to help."

Armamento-Villareal is assistant professor of medicine in the Division of Bone and Mineral Diseases and a bone specialist at Barnes-Jewish Hospital. She treats patients with a variety of disorders that affect the bones.

Not surprisingly, many of her patients are women past menopause. Postmenopausal women face an increased risk of osteoporosis because their estrogen levels have dropped. Arma-



(From left) Nicola Napoli, M.D., research assistant in the Division of Bone and Mineral Diseases, and Reina Armamento-Villareal, M.D., analyze a patient's bone density scan. "She cares so much about the welfare of the patients and follows their bone health closely," says Cynthia Ma, M.D., Ph.D., assistant professor of medicine in the Division of Oncology. "I admire that she has dedicated herself to her research not just because it's interesting, but also because she wants to make a difference in patients' lives."

## Living longer, living healthier

Armamento-Villareal seeks better ways to treat osteoporosis

mento-Villareal has a special interest in the role of estrogen in bone health and women's health in general.

She also sees patients with Paget's disease of bone, hyperparathyroidism and vitamin D deficiency. In addition, she sees a significant number of transplant patients, whose bones are affected by the steroids they take to prevent rejection. She says she enjoys the challenge posed by her bone cases.

A love for challenges seems to have served Armamento-Villareal well — it allowed her to gracefully manage the transition from life in a tropical village in the Philippines, where she was born and raised, to a successful medical career in a Midwestern American city.

Armamento-Villareal grew up in Tuburan, the Philippines, population of about 1,500, on the eastern coast of Cebu, an island near the center of the Philippine archipelago. She graduated high school at 15. With no experience of city life and little exposure to the outside world, she headed to college in the Philippines' second largest city, Cebu. She earned her undergraduate degree at Cebu Velez College.

"I never saw television until I was in college," says Armamento-Villareal with a tone of amazement. "We didn't even have a tele-

phone at home. It was a huge change for me."

Armamento-Villareal earned a medical degree from Cebu Institute of Medicine and completed training in endocrinology and diabetes in the Philippines before accepting a fellowship in endocrinology, diabetes and metabolism at the School of Medicine in 1990.

Arriving in February from tropical Cebu, where daily high temperatures were in the 80s or 90s, Armamento-Villareal found St. Louis a blast of cold air. "The temperature was negative something," she says. "It was the first time I had ever been in cold weather."

St. Louis also was where Armamento-Villareal drove a car for the first time. She laughingly describes her driving lessons: Her teacher was an Indian woman who gave her just enough information to pass the driving test and then told her, "You're not young anymore. I know you're not going to do stupid things. Just use common sense and you'll be fine." And she was — although she prudently stuck to the side streets on the way to her rotation at Shriners Hospitals for Children-St. Louis.

After her rotation ended and she had completed an internship and residency, Armamento-Villareal went into private practice at Collingsworth General Hospital and Collingsworth Family Clinic in Wellington, Texas, and then later at Overland Medical Center in Overland, Mo.

In 1999, she returned to the School of Medicine where Roberto Civitelli, M.D., the Sydney M. and Stella H. Schoenberg Professor of Medicine, introduced her to research that focused on how estrogen production and breakdown, or estrogen metabolism, affects bone health.

"When I came back, Dr. Civitelli asked me to revise a paper he was working on," Armamento-Villareal says. "That started my interest in estrogen metabolism, and I wanted to see how I could explore this topic further."

She has contributed significantly to the development of the Division of Bone and Mineral Diseases, according to Civitelli. "She's a hard worker and has been

very successful in developing her own projects," says Civitelli, also professor of orthopedic surgery and of cell biology and physiology. "She represents just what we are striving for — younger investigators who can achieve independence and originality."

Armamento-Villareal studies how variations in estrogen metabolism affect bone health in both men and women. Most people think of estrogen as a single hormone and often assume that only women have it, but actually several estrogenic compounds exist in both males and females. Each has a different "strength" or estrogenic activity. The particular cocktail of estrogens found in different individuals depends on their genetic makeup, diet and environment.

Armamento-Villareal's work has helped show that not just women's but also men's estrogen metabolism affects their bone density. She also has demonstrated that women from families with a history of osteoporosis tend to metabolize estrogen to inactive forms. This highlights the influence of a person's genetics, and Armamento-Villareal also has shown that differences in bone density may be related to genetic variations of a liver enzyme that breaks down estrogen.

One of her most recent projects delved into the relationship between estrogen metabolism, calcium intake and bone health. The study suggested that calcium from dietary sources was associated with an increase in the metabolism of estrogen to active byproducts. In addition, this study showed that calcium from dietary sources is better able to protect bone health than calcium from supplements. Armamento-Villareal is continuing her work in this area.

Other current projects look at the relationship between estrogen metabolism and cognitive function and study the genetic and dietary factors affecting bone density in those taking aromatase inhibitors, commonly prescribed to stop estrogen production in breast cancer patients.

Cynthia Ma, M.D., Ph.D., assistant professor of medicine in the Division of Oncology, collaborates with Armamento-Villareal on two research projects. Ma treats patients with breast cancer and often refers them to Armamento-Villareal because of her expertise in

the effect of aromatase inhibitors on bone density.

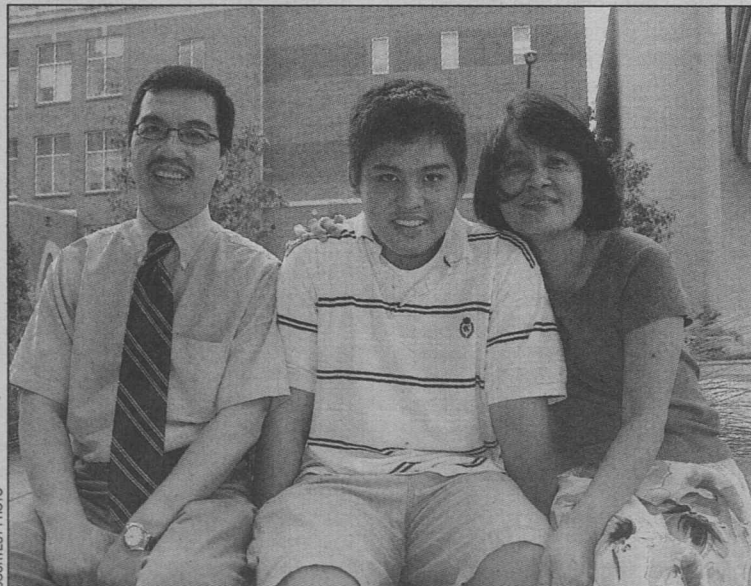
"She cares so much about the welfare of the patients and follows their bone health closely," Ma says. "I think of her as one of my mentors, and I admire that she has dedicated herself to her research not just because it's interesting, but also because she wants to make a difference in patients' lives."

Armamento-Villareal's husband, Dennis T. Villareal, M.D., is also on the faculty at the School of Medicine. Villareal, associate professor of medicine in the Division of Geriatrics and Nutritional Science, is doing research on frailty and obesity in older patients. Both conditions are related to bone health, so the couple's specialties and research interests complement each other well.

"It's good because if I have a tough case and need more input, I can ask him," Armamento-Villareal says. "And if he needs more input about things like genetics, he can ask me."

The two graduated from the same college and met during medical training in the Philippines. They have a son, Kenneth, who is starting his junior year of high school and says he's interested in pursuing medicine — on some days.

"He flip-flops," Armamento-Villareal says. "That's OK, we aren't pushing him into medicine. Something I like about America is you can do whatever interests you and still be a success. In the Philippines, there isn't so much opportunity. Every day we are thankful our parents were able to send us to college."



(From left) Dennis, Kenneth and Reina Armamento-Villareal on the School of Medicine campus.

### Reina Armamento-Villareal

**Family:** husband, Dennis Villareal, M.D., and son, Kenneth, 16

**Awards/Grants:** Sandoz Postdoctoral Fellowship in Bone, National Institutes of Health (NIH); Building Interdisciplinary Research Careers in Women's Health Award, Longer Life Foundation grant and other NIH grants

**Outside interests:** shopping: "For me, that's therapy"; television: "It keeps me awake when I'm writing. I love 'Monk' and 'Psych,' but I don't like to watch medical shows"; music: "I love music. I listen to the music my son plays. Can you imagine that?"