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Washington University Record, February 5, 2009

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Record



Washington University in St. Louis

Feb. 5, 2009

record.wustl.edu



WIMMER/CURTIS

A graceful new year Students perform the Element Dance, based on the three elements of fire, water and earth, during the Lunar New Year Festival Jan. 31 at Edison Theatre. The festival is an annual campus event celebrating the Lunar New Year — the Year of the Ox in 2009 — and promoting awareness of the different aspects of Asian culture. The show is completely student-run and fosters interaction and unity among the various Asian groups on campus.

Genetic interactions are the key to understanding complex traits

By CAROLINE ARBANAS

In recent years, genetic studies have uncovered hundreds of DNA variations linked to common diseases such as cancer or diabetes, raising the prospect that scientists can gauge disease risk based on information in an individual's genome.

But the variations identified to date only account for a small percentage — typically 1 percent to 3 percent — of the overall genetic risk of any common disease.

This disappointment has led Barak Cohen, Ph.D., assistant professor of genetics, to suggest that scientists need to get a better handle on the ways genes interact

to influence disease risk.

"For diseases that are major health problems, many different genetic variants combine to affect an individual's risk," Cohen said. "The problem is that we as scientists are really lousy at predicting how these variations interact to determine whether an individual is likely to develop a common disease or respond to a particular drug."

This reality begs the question: Is it possible to tease apart a complex genetic trait to reveal the precise genetic variations that have combined to produce it? Yes, Cohen and his group reported in the Jan. 23 issue of *Science*. If the research can be replicated, it

suggests that scientists need better statistical models and other tools to understand genetic interactions.

The researchers turned to a simple organism, the yeast *Saccharomyces cerevisiae*, culled from North American oak trees and vineyards, where it grows naturally, to find their answer.

The researchers probed the genome of yeast to find the DNA variations that determine the efficiency with which the yeast undergo sexual reproduction, a process called sporulation.

Cohen acknowledges it's not a particularly fascinating trait, but it is one that can be measured easily and precisely.

See **Traits**, Page 2

Danforth University Center is LEED Gold certified

Other WUSTL construction projects also seeking LEED certification

By JESSICA DAUES

The William H. and Elizabeth Gray Danforth University Center has received a Leadership in Energy and Environmental Design (LEED) Gold rating from the U.S. Green Building Council (USGBC).

The LEED rating system is a third-party certification program and a nationally accepted benchmark for the design, construction and operation of environmentally friendly buildings.

The Danforth University Center is the first LEED Gold and second LEED-certified

building on the Danforth Campus.

LEED-certified construction is part of the University's strategy to reduce its environmental impact, manage its financial resources and improve indoor environments.

"Developing LEED-certified buildings can require some initial

investment," Chancellor Mark S. Wrighton said. "However, this is an investment that pays great dividends over the lifespan of the building."

"Committing to LEED certification is the responsible thing to do — ensuring buildings with less of an impact on the environment that will be more energy-efficient and cost-effective down the road,"

Wrighton said.

USGBC research suggests that buildings across the country account for approximately 12 percent of all water use, 30 percent of all greenhouse gas emissions, 65 percent of all

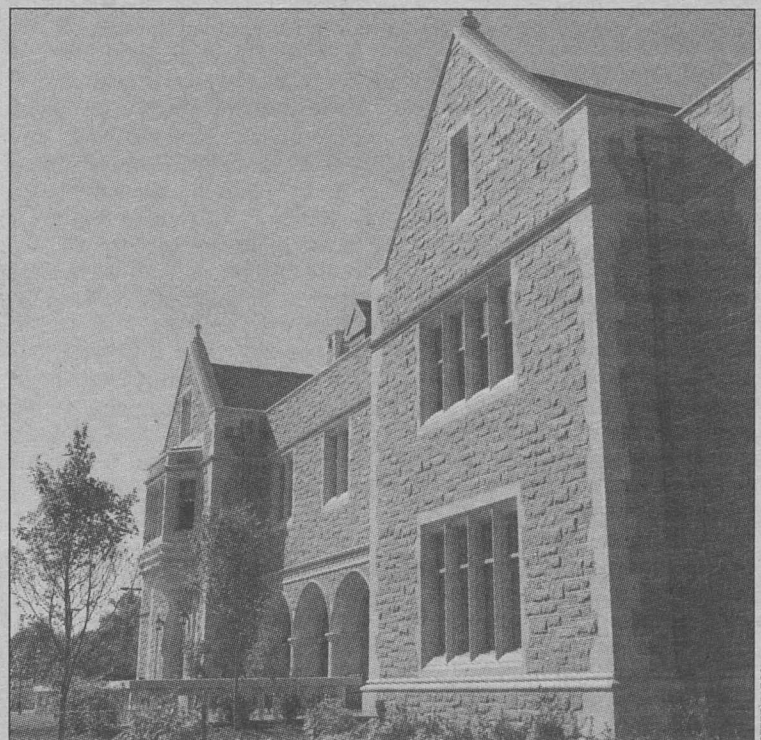
waste output and 70 percent of electricity consumption.

"LEED buildings consume smaller amounts of energy and water and create less waste, which reduces both how much money is required to run facilities and how

See **LEED**, Page 6

"This is an investment that pays great dividends over the lifespan of the building."

MARK S. WRIGHTON



JOE ANGELES

Beneath the Danforth University Center is a 50,000-gallon tank, which collects excess rainwater and groundwater. The water is then used to irrigate the building's landscaping.

University installs closed-circuit television system on Greenway Walk

By JESSICA DAUES

The installation of a closed-circuit television system on the Greenway Walk began Feb. 2, announced Don Strom, chief of Washington University Police.

"We've been conducting an ongoing review of safety and security issues in off-campus neighborhoods, and we identified the Greenway as a key pedestrian area for students, faculty and staff," Strom said. "We have previously increased security in the area during evening hours. Installing a closed-circuit television system is the logical

next step to enhancing safety and security in the Loop area."

WUSTL police's Neighborhood Security Patrol monitors the Greenway Walk area every night from 6 p.m.-2 a.m. The University also has invested in improved lighting and emergency telephones along the Greenway.

The Greenway Walk pedestrian walkway is located in University City between Melville and Westgate avenues, north of the Forest Park Parkway overpass connecting the Danforth Campus to University City. Cameras also are being installed on Melville

Avenue from Kingsbury Boulevard to Washington Avenue.

With an estimated 1,400 students living off campus in University City, security along the Greenway Walk — which many students use to travel to and from the Danforth Campus every day — is an important issue.

"Keeping students safe — and feeling safe — is among the University's highest priorities," said Justin Carroll, associate vice chancellor for students and dean of students. "We hope that the installation of this security system will discourage crime along the Greenway Walk and lead to a safer

environment for all in the campus community living in and visiting University City."

The installation is part of a long-term cooperative effort between WUSTL and University City to address safety concerns, especially in the Loop.

"Washington University continues to be a critical partner in maintaining the Loop as the premier entertainment district for the region, but equally important, Washington University is ensuring the surrounding residential areas continue to be safe, inviting neighborhoods where our residents feel

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Shake on it Sophomore Teddy Mekonnen (right) speaks with Jennifer Ashbury of the pharmacy company Express Scripts during the Spring 2009 Job & Internship Career Fair in the Field House in the Athletic Complex Jan. 30. Several hundred students attended the four-hour event to meet and interview with 90 local and national employers, including Brown Shoe, Build-A-Bear Workshop, Capital One, Enterprise Rent-A-Car, Ernst & Young, Regions Bank, Target and Walgreens.

Entertainer Lee gets even by getting angry

BY BARBARA REA

Multifaceted entertainer Lela Lee will be the featured speaker for the Assembly Series at 4 p.m. Wednesday, Feb. 11, in Graham Chapel.

Lee, a cartoonist, artist and actress, said growing up in America as a female and a member of a minority made her feel surrounded by racism and sexism.

In the early 1990s, while a student at the University of

California, Berkeley, Lee created the character and alter ego, "Kim, the Angry Little Asian Girl." The character became the star in five animated cartoons Lee developed as the "Angry Little Asian Girl" series.

Since then, Lee's creation has had successful spin-offs, including a self-published comic strip featuring girls with various identities and a Web site that offers a large selection of "Angry Little Asian Girl" merchandise. She has just published her fifth book,

"Angry Little Girls in Love," debuting in time for Valentine's Day.

Lee also is an actress with film and television credits to her name, including recurring characters in "Scrubs," and "Tremors." She appeared in the 1998 film "Yellow" and the 2002 movie "Better Luck Tomorrow."

The event, sponsored by the Asian American Association, is free and open to the public. For more information, call 935-5285 or visit assemblyseries.wustl.edu.

Traits

Could lead to an era of personalized medicine
— from Page 1

"We don't have any particular fondness for sporulation," he said. "We are simply using it as a model to understand how multiple genes interact to influence variation in a biological process."

"Our hope is that a complex trait is put together in yeast in a similar way as it is in humans," Cohen said.

When it comes to sporulation, the yeast from the oak tree samples produce spores with 99 percent efficiency; the vineyard strains are far less efficient, at 7 percent.

The scientists discovered that just four variants, or single nucleotide polymorphisms (SNPs), in three yeast genes account for nearly 90 percent of the genetic contribution to sporulation efficiency.

By moving each of the four variants from one yeast strain to the other, they produced oak strains that sporulated like vineyard strains and vice versa.

"To put this into context, there are about 85,000 SNP differences between the two strains of yeast, and by moving just four of them, we effectively reversed the phenotype of the two strains," Cohen said.

The researchers also exchanged every combination of the four SNPs between the yeast strains to determine how the genetic variations interacted.

Interestingly, any two or more of variants from the oak tree strain increased sporulation efficiency far more than would have been expected based on the individual contributions of each SNP.

"The variations interacted like crazy," Cohen said. "The combined effects of variants were always larger than the sum of their individual effects."

Understanding these interactions was critical for the scientists to accurately predict how a strain would behave based on the variations it carries in its genome.

"Only by accounting for the interactions between variants could they predict how particular variants combine to increase or decrease sporulation," Cohen said.

The researchers also were surprised to discover that the four SNPs occurred in genes known as transcription factors, which have the ability to turn on other genes.

This finding lends weight to the emerging theory that transcription factors may be a rich source of meaningful genetic variations, Cohen said.

"It's a big genome with many different types of genes," Cohen said. "The probability that all four SNPs would be in transcription factor genes is very, very low. This suggests transcription factors may be more likely to harbor significant variations than other classes of genes."

Cohen acknowledges that dissecting a complex genetic trait in humans is far more difficult due to the sheer number of SNPs in the human genome.

But his research suggests that scientists need a better understanding of genetic interactions so that information in the human genome can one day accurately predict the diseases an individual is susceptible to and a list of drugs that are most effective for that individual.

In other words, a new era of personalized medicine.



Kim Lorenz, a second-year doctoral student in molecular genetics and genomics, collects yeast samples from Pennsylvania oak trees as part of a project to analyze how genes interact to produce complex traits.

Larry Haskin honored with named crater on the moon

BY TONY FITZPATRICK

The home pages of the WUSTL Department of Earth and Planetary Sciences and the Lunar and Planetary Institute feature a picture of the late Larry Haskin, Ph.D., and the moon with this caption: "Welcome home, Larry."

Haskin, who devoted much of his distinguished career studying the moon, has joined cosmological luminaries such as Copernicus, Kepler and Galileo with the naming of a crater in his honor.

Haskin (1934-2005) was professor of earth and planetary sciences in Arts & Sciences from 1976-2005, department chair from 1976-1990 and a member of the McDonnell Center for the Space Sciences throughout his WUSTL career.

Haskin Crater is approximately 35 miles and about 10 degrees from the moon's north pole.

It's not the first galactic honor for Haskin. Months after his death in March 2005, the Athena science and engineering team for the Mars Exploration Rover mission named a prominent ridge on the east side of the Husband Hill summit on Mars "Haskin Ridge" in his honor and memory.

This latest distinction was bestowed Jan. 22, when the International Astronomical Union (IAU) officially gave his name to a far side crater. The IAU also honored 18 other scientists, many of them Nobel Prize winners.

Haskin, one of the first space scientists to analyze moon rocks brought back from the Apollo missions, made numerous important discoveries, with the recognition of the Procellarum KREEP Terrane one of his final contributions.

That region of the moon is rich in a special material called KREEP that is high in potassium (K), rare earth elements (REE) and phosphorus (P).

WUSTL colleagues nominated Haskin for the honor.

Names of deceased scientists, scholars, artists and explorers, including Russian cosmonauts and American astronauts, who have made outstanding or fundamental contributions to their field can be submitted to the IAU nomenclature committee, according to Bradley Jolliff, Ph.D., research professor of earth and planetary sciences.



Haskin

"We submitted Larry Haskin's name because of his lifelong dedication to the scientific investigation of the moon and service to NASA in promoting lunar exploration."

BRADLEY JOLLIFF

Then, when there is a scientific need to refer to a specific crater for research or charting purposes, a name is drawn from the list of approved names and given to the crater.

"We submitted Larry Haskin's name because of his lifelong dedication to the scientific investigation of the moon and service to NASA in promoting lunar exploration," Jolliff said.

"The Lunar Reconnaissance Orbiter is planned to launch in the late spring or early summer of this year," Jolliff said. "One of its objectives is to map in great detail the poles of the moon because of the potential for deposits of water-ice and other resources in those locations."

"Many of the moon's polar craters were still unnamed, so we — the Lunar Reconnaissance Orbiter (LRO) Camera Team, of which I am a member — requested several of the key unnamed craters be given names. And so one of them was named Haskin Crater," Jolliff said.

Jolliff said that naming a prominent feature on the moon for Haskin is fitting because, during Haskin's career, he studied and wrote about the potential for resources on the moon.

Haskin's paper, "Toward a Spartan Scenario for Use of Lunar Materials" in the publication *Lunar Bases and Space Activities for the 21st Century*, is often cited in scholarly research.

"Toward the end of his career, he became very interested in the process of impact cratering, especially the effects of large impact craters," Jolliff said. "We will of course target this crater for high-resolution imaging during the LRO mission."

In addition to Jolliff, other WUSTL collaborators of Haskin's on moon or moon-related research include Robert F. Dymek, Ph.D., professor of earth and planetary sciences; Randy Korotev, Ph.D., research associate professor; and Alian Wang, Ph.D., senior research scientist.

Record

Volume 33, Number 21

Founded in 1905 • Washington University in St. Louis community news

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Record (USPS 600-430; ISSN 1043-0520).
Published for the faculty, staff and friends of Washington University. Produced weekly during the school year, except school holidays, and monthly during June, July and August by the Office of Public Affairs, Washington University, Campus Box 1070, One Brookings Drive, St. Louis, MO 63130. Periodicals postage paid at St. Louis, MO.

Where to send address changes
Postmaster and nonemployees: Record, Washington University, Campus Box 1070, One Brookings Drive, St. Louis, MO 63130. Employees: Office of Human Resources, Washington University, Campus Box 1184, One Brookings Drive, St. Louis, MO 63130.

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School of Medicine Update

MRI scans can predict effects of optic nerve inflammation from MS

By MICHAEL C. PURDY

One of the most pernicious aspects of multiple sclerosis (MS) — its sheer unpredictability — may finally be starting to yield to advanced medical imaging techniques.

School of Medicine researchers report online in the journal *Neurology* that magnetic resonance diffusion tensor infusion (DTI) allowed them to estimate three months in advance the chronic effects of inflammation of the optic nerve. The condition occurs most often as a result of MS, a neurodegenerative disorder that can present with symptoms that range from vision loss and other sensory damage to muscle weakness, spasticity or paralysis to depression and sleep loss. MS affects an estimated 500,000 Americans.

"We see this as part of a battery of tests we hope to give patients within the next decade to help our clinical assessment and tailor it to an optimal treatment," said lead author Robert T. Naismith, M.D., assistant professor of neurology. "It may also help further refine our basic understanding of MS in expanding our insights into where and how damage occurs and why it can affect patients differently."

Scientists believe MS results from misdirected immune system attacks against the nervous system. Symptoms of optic nerve inflammation, known as optic neuritis, include loss of vision, blurring or foggy vision and pain in the affected eye.

Regular MRI scans can detect optic neuritis but offer no information on its severity and potential lasting consequences for a patient's vision.

Used clinically to detect and follow up on strokes, DTI uses a rapid series of MRI scans to track water diffusion in tissue. Noting that inflammation and the cell damage it causes would likely alter water diffusion in the affected tissues, Naismith and

his colleagues hypothesized that this information might allow them to assess the severity and potential for lasting damage of MS flare-ups. Over the past five years, the paper's senior authors, Sheng-Kwei Song, Ph.D., associate professor of radiology, and Anne Cross, M.D., professor of radiology, did much of the quantitative work in animal models of MS. The new data, based upon this successful collaborative history, are the first to show that DTI can produce potentially useful predictive information in humans.

For the study, researchers used DTI to image the optic nerves of 12 healthy volunteers, 12 patients who had begun to suffer from optic neuritis within the past month and 28 patients with a history of earlier outbreaks. In the healthy subjects, DTI scans showed that the water diffusion along the length of the subjects' optic nerves, a characteristic known as axial diffusivity, averaged about 1.66

micrometers squared per millisecond. In three patients with acute optic neuritis, those levels went down as much as 0.45 micrometers squared per millisecond.

"As the inflammation breaks down the structure of the axons or branches of the optic nerves, the normal water diffusion in this direction is impeded," Naismith said. "After several months, though, the debris is cleared away, and this value and another characteristic known as radial diffusivity then start to increase."

In acute patients, the initial decrease in axial diffusivity brought on by optic neuritis correlated with decreased sensitivity to visual contrast one month and three months later. In patients with a history of optic neuritis, the increase in radial diffusivity was a good predictor of lower scores on several tests of visual health.



Naismith



A fine art Leslie Neems, a first-year medical student, looks at a black-and-white photograph ("Ophelia's Garden") by Lori A. Nichols, administrative professional in the Department of Neurology, at the annual Student, Faculty and Staff Art Show in the Farrell Learning and Teaching Center Atrium, on display until Feb. 12. The show features 112 pieces of art, including original photography, painting, mixed media, charcoal, ceramics and other forms of art, by 62 members of the School of Medicine community.

Regimented dental care reduces pneumonia cases in ICU patients

A strict regimen of brushing the teeth of patients in the intensive-care unit on breathing machines dramatically reduced the bacteria that can cause up to 300,000 cases of deadly pneumonia yearly.

In a study in the 24-bed Barnes-Jewish Hospital surgical and trauma intensive care unit, nurses found that they could cut the incidence of ventilator-associated pneumonia (VAP) by nearly half by simply brushing patients' teeth twice a day and applying mouthwash to the inside of the mouth.

"The study clearly demonstrates the importance of regimented dental hygiene in reducing VAP in the ICU," said Timothy G. Buchman, M.D., Ph.D., the Harry Edison Professor of Surgery and chief of the Section of Acute

and Critical Care Surgery at the School of Medicine and co-author of the study. "It also underscores how critical every aspect of the lifesaving care is that nurses bring to patients every day."

The year-long study, led by nurse specialists in the intensive care unit in conjunction with School of Medicine physicians, was published online in the *Journal of Intensive Care Medicine*.

VAP is the most common hospital-acquired infection in critically ill patients. It is a leading cause of complications and death

and can add days or weeks to a hospital stay and up to \$40,000 to the cost of a patient's care.

"The longer a patient is on a ventilator, the more potential there is for other complications to occur," said Lynn Schallom, a nurse specialist and co-author of the study. "If we can prevent VAP, we can get the patient off of the ventilator and out of the intensive care unit faster."

The primary cause of VAP is the aspiration or inhalation of bacteria-contaminated saliva and mucus into the lungs. Previous studies found that using an antimicrobial mouthwash on heart patients could reduce the incidence of VAP.

"We were intrigued by the use of tooth brushing to remove plaque and bacteria in healthy volunteers and felt we should include it," said Carrie Sona, a nurse specialist and co-author of the study. "We had no funding and did not want to err on the side of just doing mouthwash, so we did both tooth brushing and mouthwash to make the biggest impact."

To further reduce the costs of the study, Sona and Schallom used regular hospital toothbrushes, which cost about 7 cents each. The total cost of the tooth-brushing regimen through the study was \$2,187.49.

Beginning in 2004, whenever a patient in the unit was placed on a ventilator, the nurses started a regimen of brushing the patient's teeth for one minute every 12 hours followed by a mouthwash. The regimen continued until the patients were off the ventilators and breathing on their own.

At the end of a year, Sona and Schallom found that incidence of VAP had dropped from 5.2 percent (24 cases) in 2003 to 2.4 percent (10 cases) in 2004 — a drop of 46 percent. The practice has been adopted for ventilator patients throughout Barnes-Jewish Hospital, and the VAP rate has remained at 2.4 percent or lower.



Buchman

Church effort increases first-time African-American blood donors

By BETH MILLER

A program at the School of Medicine and St. Louis Children's Hospital designed to increase awareness about sickle cell disease and the importance of blood donations within the African-American faith community led to a 60 percent increase in first-time blood donations, a new study has found.

The program, called Sickle Cell Sabbath, was formally launched in 2003 by Michael R. DeBaun, M.D., the Ferring Family Chair in Pediatric Cancer and Related Disorders and professor of pediatrics, of neurology and of biostatistics. It is observed on Sundays from February (Black History Month) through June in honor of Charles Drew, M.D., an African-American blood specialist whose pioneering work in blood collection, plasma processing and transfusion laid the foundation for modern blood banking. Its aim is to educate congregations of predominantly African-American churches about sickle cell disease and the benefit of blood and cord-blood donations and to make giving blood more convenient by encouraging church sponsorship of blood drives.

Results of the study are published in the advance online publication of the journal *Transfusion*.

Sickle cell disease is the most common

genetic disease in African-Americans, affecting about one in 400 newborns. Patients with sickle cell disease have red blood cells that contain an abnormal type of hemoglobin that causes the normally round, flexible red blood cells to become stiff and sickle- or crescent-shaped. The sickle cells can't pass through tiny blood vessels, which can prevent blood from reaching some tissues and can result in tissue and organ damage, pain and stroke.

"Blood transfusions and bone marrow transplants have been shown to be effective treatments for sickle cell disease by replacing sickle cells with healthy red blood cells," DeBaun said. "African-American blood donors are more likely to have more compatible red blood cell phenotypes for children with sickle cell disease."

Although African-Americans make up 13.5 percent of the population, they make up only 6.5 percent of the total blood-donor pool.

"Historically in African-American communities, churches are one of the lead community centers in the neighborhood and are the easiest way to reach people, especially first-time donors," said Michael Johnson, chaplain for the Sickle Cell Sabbath Program who also has sickle cell disease.

"Most people at the churches didn't know the impact blood donorship has. Once

people understand the importance of giving blood, they become repeat donors," he said.

The Sickle Cell Sabbath program worked with 13 predominantly African-American churches in the St. Louis metropolitan area. Each church sponsored at least two blood drives between 2003-06.

A few weeks prior to each blood drive, medical and professional staff from the Sickle Cell Medical Treatment and Education Center at St. Louis Children's Hospital and from the Sickle Cell Sabbath program, a representative of the American Red Cross or a parent of a child with sickle cell disease made a brief presentation to the congregation about the disease and the benefits of blood donation.

Of the nearly 700 donors who participated in the blood drives, 422, or 60 percent, were first-time donors. According to the American Red Cross, about 12.2 percent of blood donors are first-time blood donors in the St. Louis metropolitan area general community.

The program is a joint project of St. Louis Children's Hospital, the School of Medicine, the St. Louis City Health Department, the Charles Drew Blood Campaign of the American Red Cross, Saint Louis University and SSM Cardinal Glennon Children's Medical Center.

University Events

Hamlet as a teenager? PAD production to explore adolescent mind

By LIAM OTTEN

For many actors, Hamlet is the Mount Everest of roles: a four-hour, 3,000-line trek to be approached only at the height of one's professional powers. As a result, many productions feature leads — from Sir Laurence Olivier and Sir John Gielgud to Mel Gibson and Kenneth Branagh — who are well into middle age.

Yet that is a fundamental misreading of the text, argues Henry I. Schvey, Ph.D., professor of drama and of comparative literature and chair of the Performing Arts Department (PAD), all in Arts & Sciences.

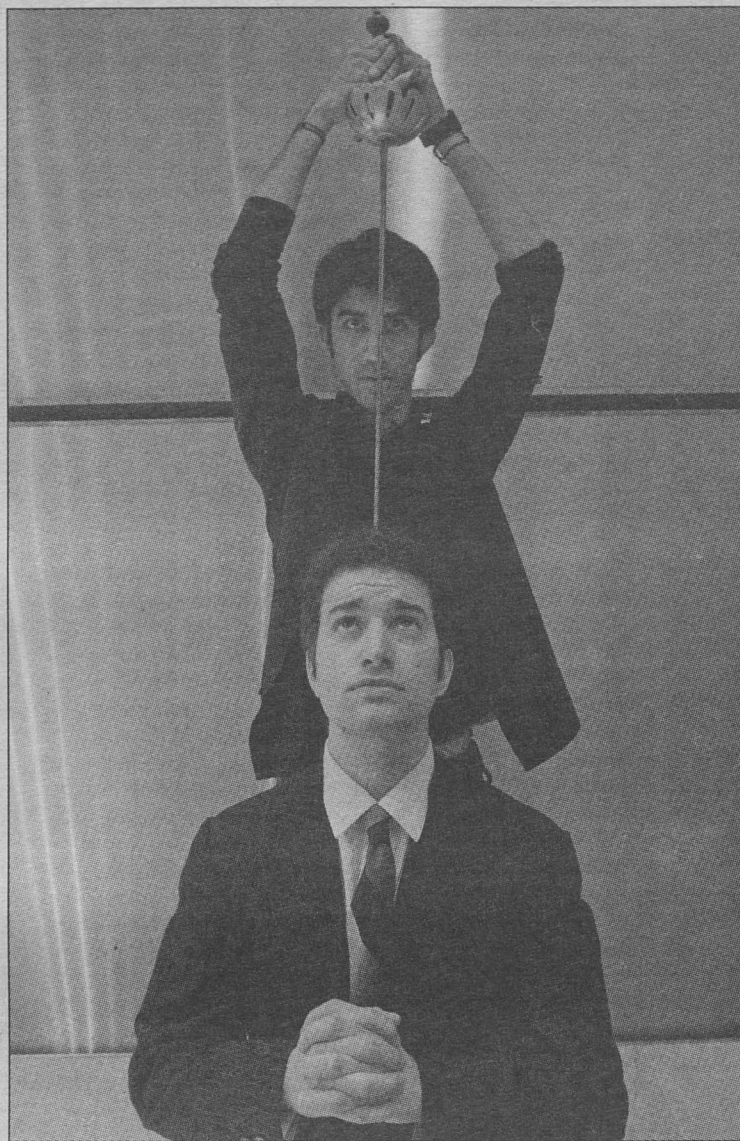
"Hamlet is as much a story of adolescence as Romeo and Juliet," Schvey said. "Remember, Hamlet is at university when he is suddenly called back to attend his father's funeral, and there are numerous textual references to his youth. Indeed, many of the characters — Horatio, Laertes, Rosencrantz and Guildenstern — are university students, and Ophelia is younger still," Schvey said.

Beginning Feb. 13, Schvey — who founded the PAD's Shakespeare Summer Globe Program in 1989 and who has served on The Shakespeare's Globe Centre USA Advisory Committee — will direct a new production of "Hamlet" in the A.E. Hotchner Studio Theatre.

Performances begin at 8 p.m. Feb. 13 and 14; and at 2 p.m. Feb. 15. The production continues the following weekend at 8 p.m. Feb. 20 and 21; and at 2 p.m. Feb. 22.

Set in the present day and using modern dress, the production is designed to showcase the prince of Denmark as "a very young man, trapped in a politically dangerous world that, despite his remarkable and profound intelligence, he is ill-equipped to handle," Schvey said.

The tradition of Hamlet being played by older actors may date back to Richard Burbage (1567-1619), Schvey said. The star of Shakespeare's own company, the



The Performing Arts Department's unorthodox production of "Hamlet" is set in the present day and stars seniors Sathya Sridharan as Hamlet (top) and Justin Joseph as Claudius.

Lord Chamberlain's Men, Burbage would have been in his mid-30s when the play was written and first performed.

"It is certainly a daunting role," Schvey said. "It's the longest play in Shakespeare, and Hamlet is onstage for all but about 20 minutes.

"But the essence of the story is youth. Much has been made about the mystery of the character — his impulsivity, his erratic behavior and swings of emotion. And, yet, if

we see Hamlet as a teenager rather than as a middle-aged man, things that seemed incoherent suddenly ring true," Schvey said.

Take the strained relationship between Hamlet and his widowed mother, Queen Gertrude. As the play begins, Gertrude has rather hastily remarried her brother-in-law, Claudius — a decision that profoundly upsets her son and helps set the tragedy in motion. Yet no less a critic than T.S. Eliot called Hamlet "an artistic failure"

on the grounds that it does not adequately explain the depth of Hamlet's revulsion.

"Hamlet is up against the difficulty that his disgust is occasioned by his mother," Eliot wrote, "but that his mother is not an adequate equivalent for it; his disgust envelops and exceeds her."

Yet Schvey said that what caused such insurmountable problems for Eliot makes perfect sense when Hamlet is cast as a teenager.

"What the play illustrates, with remarkable psychological insight, is a young man's repulsion for a parent who has suddenly and unexpectedly displayed overt sexuality," Schvey said.

This emotional dynamic underscores another of the play's central mysteries: Hamlet's treatment of his own beloved, the young noblewoman Ophelia.

"Hamlet not only feels betrayed by his mother, but he also jumps to the conclusion that all women are similarly duplicitous," Schvey said. "It's a leap that may seem extreme for an adult but is entirely plausible for the mind of the adolescent."

The cast of 27 is led by senior Sathya Sridharan as Hamlet, senior Justin Joseph as Claudius and junior Virginia Page as Gertrude.

Also starring is sophomore Julia Mellon as Ophelia, junior Iain Prendergast as Polonius, sophomore Dan Tobin as Laertes and senior David Weiss as Horatio. Sophomores Jonathan Levinson and Eli Keehn play Rosencrantz and Guildenstern.

The sleek, contemporary set design — which subtly mimics the look and flow of an Elizabethan stage — is by Angela Bengford, lecturer in the PAD. Costume design is by senior Catherine Elhoffer.

Lighting is Sean Savoie, lecturer in the PAD. Sound is by senior Kevin Liu.

Tickets — \$10 for students, senior citizens, faculty and staff and \$15 for the public — are available through the Edison

Additional events enhance 'Hamlet' experience

In conjunction with "Hamlet," the Performing Arts Department (PAD) in Arts & Sciences will host a symposium on "Hamlet and the Adolescent Mind" at 10 a.m. Feb. 21 in the Ann W. Olin Women's Building Formal Lounge.

Co-sponsored by the Center for the Study of Ethics and Human Values and by the Department of Psychology in Arts & Sciences, the symposium will feature a half-dozen panelists from theater, medicine, adolescent psychology and other disciplines.

The discussion will explore a variety of topics relating to the play, from suicide and depression to psychoanalysis, brain-imaging and cross-cultural behavior.

In addition, the PAD will host a staged reading of the much-debated 1603 "First Quarto" version of "Hamlet" at 7:30 p.m. Feb. 18 in Edison Theatre.

At roughly half the length of the more familiar "Second Quarto" and "Folio" versions, this fast-paced text reorders and combines major plot points and has been variously explained as an actor's "memorial reconstruction" of the original performance and as a touring version used by Shakespeare's company outside of London.

Both the symposium and the "First Quarto" reading are free and open to the public.

For more information, call 935-5858.

Theatre Box Office and all MetroTix outlets.

For more information, call 935-6543.

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"University Events" lists a portion of the activities taking place Feb. 5-18 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

"Eero Saarinen: Shaping the Future." Through April 27. Mildred Lane Kemper Art Museum. 935-4523.

"On the Riverfront: St. Louis and the Gateway Arch." Through March 9. Steinberg Hall Architecture Gallery. 935-4523.

Film

Monday, Feb. 16

7 p.m. Jewish, Islamic and Near Eastern Film Series. Middle East-North Africa Film Series. "The Yacoubian Building." Marwan Hamed, dir. (Discussion to follow.) Seigle Hall, Rm. L006. 935-5110.

Lectures

Thursday, Feb. 5

Noon. Genetics Seminar. "Learning From Re-Sequencing Data: What to Do When the \$1,000 Genome Arrives?" Shamir Sunyaev, asst. prof. of medicine and health sciences & technology, Harvard Medical School.

McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

4 p.m. Chemistry Seminar. "Molecular Structures and Reactivity: New Insights and Applications." Lawrence Williams, assoc. prof. of chemistry & chemical biology, Rutgers. McMillan Lab., Rm. 311. 935-6530.

4 p.m. Vision Science Seminar Series. "Mechanisms of Immune Evasion by Ocular Tumors." Kyle C. McKenna, asst. prof. of ophthalmology and visual sciences, U. of Pittsburgh. Maternity Bldg., Rm. 725. 362-3315.

4:30 p.m. Freedom From Smoking Class. "Winning Strategies." Center for Advanced Medicine, Barnard Health and Cancer Info. Center. To register: 362-7844.

5 p.m. Assembly Series. "Entrepreneurship in the Current Economy." Maxine Clark. Graham Chapel. 935-5285.

Friday, Feb. 6

Noon. Cell Biology and Physiology Seminar. "Black Death, Black Spot, Black Pearl: Tales of Bacterial Effectors." Kim Orth, assoc. prof. of molecular biology, U. Texas Southwestern Medical Center. McDonnell Medical Sciences Bldg., Rm. 426. 362-6950.

12:30 p.m. Biostatistics Seminar Series. Warwick E. Daw, research assoc. prof. of genetics. Shriners Bldg., Rm. 3307, 706 S. Euclid. 362-1565.

3 p.m. Joint Center for East Asian Studies Spring Symposium. "The Tokyo Trial and After: New Interpretations, New Lives." (Reception follows.) McMillan Cafe. 935-4448.

Saturday, Feb. 7

7:30 a.m.-3:45 p.m. Hematology & Oncology CME Course. "Highlights of the 2008 San Antonio Breast Cancer

How to submit 'University Events'

Submit "University Events" items to Angela Hall of the Record staff via:

e-mail — recordcalendar@wustl.edu

@wustl.edu

campus mail —

Campus Box 1070

fax — 935-4259

Upon request, forms for submitting events will be e-mailed, mailed or faxed to departments to be filled out and returned.

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

Symposium." Cost: \$95. The Ritz-Carlton, St. Louis, 100 Carondelet Plaza. To register: 362-6891.

Monday, Feb. 9

Noon. Work, Families and Public Policy Brown Bag Seminar Series. "Neighbors and Co-Workers: The Importance of Residential Labor Market Networks." David Neumark, prof. of economics, U. of Calif., Irvine. Seigle Hall, Rm. 348. 935-4918.

4 p.m. Immunology Research Seminar Series. "The Herculean Tasks of Developing T Cells." Paul Allen, prof. of pathology & immunology. Moore Aud., 660 S. Euclid Ave. 362-2763.

4 p.m. Religious Studies Lecture. Edward G. Weltin Lecture in Early Christianity.

"Jewish, Christian and Muslim Thinkers in Abbasid Baghdad: Religion and Philosophy in the Circle of the Jacobite Christian Yahya ibn'Adi (893-974)." Sidney H. Griffith, prof. of semantic and Egyptian languages and literatures, Catholic U. of America. (Reception follows.) Whitaker Hall Aud. 935-8677.

4 p.m. Siteman Cancer Center Breast Cancer Research Group Seminar Series. "How 'Old' Stroma Impacts Breast Carcinogenesis." Sheila Stewart, asst. prof. of medicine. Center for Advanced Medicine, Farrell Conf. Rm. 2. 454-8981.

4 p.m. Undergraduate Public Health Lecture Series. "What to Expect From a Graduate Program in Public Health." Tim McBride, prof. of public health. McMillan Hall, Rm. 149. 935-7770.

5:30 p.m. Cardiac Bioelectricity and Arrhythmia Center Seminar. "Delayed Enhanced MRI as a Research Tool." Pamela K. Woodard, assoc. prof. of radiology. (5 p.m. refreshments.) Whitaker Hall, Rm. 218. 935-7887.

6 p.m. Committee for the Language Learning Series Panel Discussion. "Transforming College and University Foreign Language Programs: Response to MLA Report." Women's Building Formal Lounge. 935-5175.

Tuesday, Feb. 10

11:30 a.m. Energy, Environmental and Chemical Engineering Seminar Series. "Interplay of Pore Structure, Colloid Deposition and Pore Fluid Flow." Aaron Packman, assoc. prof. of civil & environmental engineering, Northwestern U. Urbauer Hall, Rm. 216. 935-5548.

3:30 p.m. Whitney R. Harris World Law Institute Seminar. "Judge Thou Justly: Trying Iraq's Previous Leadership." Feisal al-Istrabadi, ambassador. Anheuser-Busch

Hall, Rm. 320. 935-7988.

4 p.m. Center for the Humanities Faculty Fellows' Series. "Romanticism, Violence and the Feminine in Contemporary Irish Poetry." Guinn Batten, assoc. prof. of English. Duncker Hall, Rm. 201, Hurst Lounge. 935-5576.

4:30 p.m. Freedom From Smoking Class. "The New You." Center for Advanced Medicine, Barnard Health and Cancer Info. Center. To register: 362-7844.

5:30 p.m. Biochemistry & Molecular Biophysics Biophysical Evenings Seminar. "Modeling and Design of Protein-DNA Interfaces." Jim Havranek, asst. prof. of genetics. Cori Aud., 4565 McKinley Ave. 362-4152.

Wednesday, Feb. 11

4 p.m. Assembly Series. "My Culture is Pop Culture." Lela Lee. Graham Chapel. 935-5285.

Thursday, Feb. 12

Noon. Genetics Seminar. "Evolution of Novel Human Gene Families." Evan Eichler, assoc. prof. of genome sciences, U. of Wash. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

4 p.m. Chemistry Seminar. "Assemblies of Nanoparticles as 3D Scaffolds for New Materials: From Mechanically Strong Polymer Crosslinked Aerogels to Porous Iron and Silicon Carbide." Nicholas Leventis, prof. of chemistry, Mo. U. of Science & Technology. McMillan Lab., Rm. 311. 935-6530.

4 p.m. Vision Science Seminar Series. "Herpes Simplex Virus Evasion of Autophagy and the Immune Response." David Leib, prof. of ophthalmology and visual sciences. Maternity Bldg., Rm. 725. 362-3315.

Innovative, internationally acclaimed artists open Jazz at Holmes spring series

By CYNTHIA GEORGES

Washington University's Jazz at Holmes series will feature internationally acclaimed musicians Marc Copland, Gary Peacock and Bill Stewart in concert at 8 p.m. Feb. 13 in the E. Desmond Lee Concert Hall at the 560 Music Center.

The event is co-sponsored by the Department of Music in Arts & Sciences. Admission is \$5 for students; \$15 for faculty and staff; and \$20 for the public.

"This trio, with the legendary Gary Peacock and drum virtuoso Bill Stewart, is the most progressive piano trio on the international jazz scene," said William Lenihan, a Jazz at Holmes series coordinator and director of jazz performance and instructor in guitar and jazz theory in the Department of Music. "Marc Copland's harmonic sense is unrivaled, where Peacock's playing calls to mind the entire history of jazz."

Copland is recognized as an innovator with a unique grasp of harmony and color and is considered by many to be the foremost proponent of the lyrical school of jazz pianism today. Formerly a saxophonist, Copland has 18 critically acclaimed releases to his credit.

He has performed as leader or sideman with Michael Brecker, Ralph Towner, Randy Brecker, John Scofield, Billy Hart and others.

Over the past five decades, Peacock has established himself as one of the most versatile and talented bass players in jazz. Influenced by avant-garde saxophonist Albert Ayler and studies in Eastern music and philosophy, Peacock asserts that the disparities between traditional and

experimental music are not as great as one might think.

He has played and recorded with both mainstream and avant-garde jazz luminaries, including Ayler, Miles Davis, Bill Evans, Art Pepper, Dexter Gordon, Sonny Rollins, Paul Bley, Jimmy Giuffre, Jan Garbarek, Tony Williams, Wayne Shorter, Keith Jarrett and Herbie Hancock. Peacock continues to collaborate and perform with pianist Bley, with whom he has worked since the 1960s.

Stewart is an American jazz drummer who has performed with a broad array of musicians from Maceo Parker to Jim Hall. Stewart's association with Parker led to Stewart's memorable gig with the great James Brown, who told Stewart that there "Ain't no funk in Iowa!" upon learning the drummer's roots. Musical associations with the likes of Michael Brecker, Pat Metheny and many other notable jazz musicians have followed. Stewart also is a composer whose distinctive tunes, often categorized as "postmodern" jazz tunes, appear on his and others' records.

Subsequent concerts in the Jazz at Holmes series are free, held at Holmes Lounge and are open to the public. Launched in 1996, Jazz at Holmes features coffeehouse-style concerts with professional jazz musicians from the St. Louis area and those known on the national and international scene, most Thursdays throughout the academic year.

The spring schedule

Feb. 19. The Mosby Music Group plays original jazz-fusion.

Feb. 26. The Sometime Then and Again quartet performs electric ambient jazz with Dave Stone and William Lenihan.

March 5. The Portnoy, Lenihan

and Guth Trio features music of jazz modernists Richie Beirach and John Abercrombie.

March 19. Kim Portnoy and Lenihan team up again to play the music of Bill Evans and Jim Hall.

March 26. Guitarist Chris Burchett and his quartet perform.

April 2. Vocalist Jan Shapiro and guitarist Lenihan turn to standards recorded by Ella Fitzgerald and Joe Pass.

April 9. The Wee Trio from New York presents new music for vibraphone, bass and drums.

April 16. The series closes with St. Louis vocalist Anita Rosamond, who takes familiar jazz standards and imbues them with her own melodic sound.

The series also is sponsored by the College of Arts & Sciences, Office of Residential Life, Student Union, University College and Summer School, Congress of the South 40, Office of Student Activities, New Student Orientation, Greek Life Office, Annika Rodriguez Scholars Program, Community Service Program, Event Services and Michael Cannon, executive vice chancellor and general counsel.

For more information, contact Sue Taylor at staylor@wustl.edu or 862-0874. To receive e-mail notices about future events, e-mail tvs2@wustl.edu.

Local musicians take stage at Kemper

The Mildred Lane Kemper Art Museum will launch its spring 2009 concert series, "Kemper Presents," at 6 p.m. Feb. 27 with Theodore, a foursome that creates a rootsy, familiar yet completely fresh sound with instruments as diverse as the trombone, glockenspiel, accordion and lap steel guitar.

Designed to highlight the talents and diversity of contemporary St. Louis musicians, the series will feature local artists working in a variety of genres from ambient jazz and soul to punk rock and American roots music.

"We hosted our first Kemper Presents series in spring 2008 and received tremendous community response," said Kimberly Singer, manager of marketing, visitor services and events for the Kemper museum. "We are hoping for a second smashing success."

The series continues March 6 with Mmmelt, which fuses ambient, punk, world beat, jazz, electronics, avant-garde and spoken word into an eclectic, sonic landscape.

A Bit Shifty, a male-female duo combining vocals, guitar and drum, will perform

March 13, followed by singer-songwriter Tonya Gilmore, whose voice and haunting lyrics will mesh with keys, guitar and cello on March 20.

On March 27, Brothers Lazaroff take the stage with a diverse lineup of musicians who offer soulful roots music. Ill-physics follows on April 3 with a mix of hip-hop, rock and blues.

The series continues April 10 with FIRE DOG, an indie pop trio with a catchy sound. A night of punk rock on April 17 features two bands: the 75s and Left Arm. The 75s play pop with a "girlie twist," while Left Arm garage-band musicians produce tight, gritty riffs.

Brotha'D & the WOO-Daddies will conclude the series April 24 with their distinctive, self-described sound: "Rockabluesabilly with a twist of swing."

The museum will partner with LiveFeed throughout the series. Patrons are asked to bring unopened jars of peanut butter and jelly that will be donated to LiveFeed partner City Faces, which provides arts education to underserved populations.

All concerts are free and open to the public and begin at 6 p.m. Refreshments will be served.

Friday, Feb. 13

Noon. Cell Biology and Physiology Seminar. "How to Schedule Your Day: Neuropeptide Entrainment of Circadian Oscillators." Erik D. Herzog, assoc. prof. of biology. McDonnell Medical Sciences Bldg., Rm. 426. 362-6950.

Saturday, Feb. 14

11 a.m. MLA Saturday Seminar Series. "Science and Society." Barbara A. Schaal, prof. of biology. McDonnell Hall, Goldfarb Aud. 935-6700.

Monday, Feb. 16

4 p.m. Immunology Research Seminar Series. "Digital Signaling and Frustration During Thymic Selection Results in an Antigen-Specific T Cell Repertoire." Arup Chakraborty, prof. of chemical engineering, Mass. Inst. of Technology. Farrell Learning & Teaching Center, Connor Aud. 362-2763.

6:30 p.m. Sam Fox School Public Lecture Series. Distinguished Alumni Lecture. David Dowell, principal, el dorado inc., Kansas City. (6 p.m. reception.) Steinberg Aud. 935-9300.

Tuesday, Feb. 17

Noon. Assembly Series. "Zines, Half-lives and Afterlives: On the Temporalities of Social and Political Change." Janice Radway. Women's Bldg. Formal Lounge. 935-5285.

Wednesday, Feb. 18

11 a.m. Assembly Series. "Computer (and Human) Perfection at Checkers." Jonathan Schaeffer. Steinberg Aud. 935-5285.

Noon. Interdisciplinary Project in the Humanities Lecture Series. "FanZ and Enthusiasts: The Passions of Modern Reading." Lynne Tatlock, prof. in arts & sciences. Co-sponsored by the Assembly Series and Center for the Humanities. Women's Bldg. Formal Lounge. 935-4200.

4 p.m. Institute for Public Health Faculty Seminar Series. Ross Brownson, prof. of social work. Goldfarb Hall, Rm. 132. 454-7998.

6 p.m. Assembly Series. "The Legacy of George Washington." David Konig, prof. of history, and Andrew Rehfeld, assoc. prof. of political science. Women's Bldg. Formal Lounge. 935-5285.

6:30 p.m. Sam Fox School Public Lecture Series. Yuko Shimizu, artist. (6 p.m. reception.) Steinberg Aud. 935-9300.

And More

Friday, Feb. 13

8:30 a.m.-1:30 p.m. Social Work Master of Public Health Introductory Event. "Focus on MPH." Brown Hall Lounge. 935-6676.

On Stage

Friday, Feb. 13

8 p.m. OVATIONS! Series. "King Henry V." Cost: \$32, \$28 for seniors, faculty and staff, \$20 for students and children. Edison Theatre. 935-6543.

8 p.m. Performing Arts Dept. Presentation. "Hamlet." (Also 8 p.m. Feb. 14, 20 and 21; 2 p.m. Feb. 15 and 22.) Cost: \$15, \$10 for students, faculty and staff. A.E. Hotchner Studio Theatre. 935-6543.

Saturday, Feb. 14

8 p.m. OVATIONS! Series. "The Spy." Cost: \$32, \$28 for seniors, faculty and staff, \$20 for students and children. Edison Theatre. 935-6543.

Wednesday, Feb. 18

7:30 p.m. Performing Arts Dept. Staged Reading. "Hamlet: The Actors' Version." Presenting the 1603 Quarto Version of the play. Edison Theatre. 935-5858.

Sports

Friday, Feb. 6

6 p.m. Women's Basketball vs. New York U. Athletic Complex. 935-4705.

8 p.m. Men's Basketball vs. New York U. Athletic Complex. 935-4705.

Sunday, Feb. 8

Noon. Men's Basketball vs. Brandeis U. Athletic Complex. 935-4705.

2 p.m. Women's Basketball vs. Brandeis U. Athletic Complex. 935-4705.



Andy Grotelueschen (right) as Captain Lawson and Rick Ford as Mr. Wharton in "The Spy."

Adventure classics come to Edison

The price of glory. The brutality of war. A lawless free-fire zone brimming with loyalists and revolutionaries.

This month, two powerhouses of American theater, The Guthrie Theater and The Acting Company, will join forces to present a pair of adventure classics for Edison Theatre's OVATIONS! Series.

At 8 p.m. Feb. 13, director Davis McCallum will lead a cast of 12 in William Shakespeare's epic "King Henry V." At 8 p.m. Feb. 14, John Miller-Stephany, associate artistic director of the Guthrie, will direct Jeffrey Hatcher's world premiere adaptation of James Fenimore Cooper's "The Spy."

Based on the life of Henry V, "King Henry V" follows the young and ambitious English monarch as he attempts to secure his political position at home by turning the country's attention abroad.

Launching a hasty invasion of France, Henry and his ragtag army confront heavy opposition but, following a dramatic stand at the Battle of Agincourt, succeed in uniting the two nations (however briefly). Yet, Shakespeare frankly juxtaposes the heroics of battle with its human costs, capturing the pained and complex reactions of men who are sometimes unsure of the justice of their cause.

"The Spy," set during the American Revolution, centers on the Wharton family, a prosperous New York clan living on "neutral ground" between British forces in Manhattan and American rebels further north. Though divided in their loyalties — the older daughter, Sarah, is preparing to marry a British colonel, while the younger daughter, Frances, is engaged to an American major — the Whartons remain at peace until Henry, the only son, is arrested as a British spy.

As he awaits hanging, Henry finds his fate in the hands of a mysterious wandering peddler named Harvey Birch, a supposed British loyalist who may be working for George Washington.

The cast of 12 — which performs several dozen roles over the course of the two shows — is comprised of Acting Company alumni as well as graduates of the Guthrie Experience and the University of Minnesota/Guthrie Theater B.F.A. actor training programs.

Leading the ensemble are Matthew Amendt as Henry V and Ron Menzel as Harvey Birch, along with Freddy Arsenault, Georgia Cohen, Kelley Curran, Rick Ford, Andy Grotelueschen, Carie Kawa, Robert Michael McClure, William Sturdivant, Samuel Taylor and Sonny Valicenti.

Based in Minneapolis, The Guthrie Theater was founded in 1963 by the great English director Sir Tyrone Guthrie as a center for theater performance, production, education and professional training. In addition to touring main-stage shows, the Guthrie performs contemporary pieces through The Guthrie Lab and runs educational programs that reach more than 90,000 students every year.

The Acting Company, also based in Minneapolis, was founded in 1972 by the late John Houseman and by producing director Margot Harley, who wanted to bring the live experience of classic theater to communities that might otherwise go unserved.

In the years since, the troupe has performed 131 plays in 48 states and 10 foreign countries. Alumni include Kevin Kline, Patti LuPone, Frances Conroy, Jeffrey Wright, Jesse L. Martin, David Ogden Stiers and Rainn Wilson.

Tickets — \$20 for students and children; \$28 for faculty, staff and seniors; and \$32 for the public — are available at the Edison Theatre Box Office and through all MetroTix outlets.

For more information, call 935-6543 or e-mail Edison@wustl.edu.



A Super sport Mahendra Gupta, Ph.D. (left), dean and the Geraldine J. and Robert L. Virgil Professor of Accounting and Management at Olin Business School, catches the "winning pass" at the ninth annual Super Ad Bowl, sponsored by the Olin Marketing Association (OMA) on Feb. 1 at the Knight Center. MBA student Tetsuya Udo scored one of the winning bids to throw a pie at a professor. Ticket sales, a raffle and silent auction at the event raised more than \$1,300 for Meds and Food For Kids, an organization dedicated to curing child malnutrition in Haiti. About 100 students, friends and faculty attended OMA's Super Ad Bowl festivities and voted the Doritos/Crystal Ball commercial as the best ad during the game, followed by Teleflora, Bud Light/Conan O'Brien and Cash4Gold. Tied for fifth place were Pepsi/Cross Generations and Budweiser/Clydesdale fetch.

Campus Watch

The following incidents were reported to University Police Jan. 27-Feb. 2. 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.

Jan. 27

11:53 a.m. — License plate tabs were reported stolen from the parking lot in front of Whitaker Hall.

Jan. 28

1:22 a.m. — An ID card was reported lost.

Jan. 29

11:24 p.m. — A security guard reported that a phone from the information desk at the Mallinckrodt Student Center was missing.

Jan. 30

9:27 a.m. — A student reported that his wallet had been stolen from his sweatshirt inside

the men's locker room in the Athletic Complex.

3:24 p.m. — Two subjects previously warned about trespassing were arrested.

Additionally, University police responded to three sick cases, two accidental injuries, two crisis interventions, two reports of trespassing, one judicial referral and one lost article.

Sports

Road has been good to men's basketball

The No. 2 ranked men's basketball team remained unbeaten in the University Athletic Association (UAA) with a pair of road victories.

Senior Sean Wallis had 12 points and a game-high 11 assists as the Bears posted an 80-75 victory at Brandeis University Jan. 30. Junior Aaron Thompson led all scorers with 18 points, while junior Cameron Smith tied his career-high with 15 points on 6-of-6 shooting from the field. Senior Tyler Nading (12 points) and freshman Alex Toth (11) also scored in double figures for WUSTL, which shot 53.7 percent from the field in the victory.

WUSTL had 24 assists and just eight turnovers in the victory, its seventh straight of the season. The eight turnovers were the second lowest total this season.

Thompson scored a game-high 29 points with five three-pointers to lead the Bears to a 67-56 victory at New York University Feb. 1. Thompson was 9-of-19 from the field, including 5-of-9 from three-point range, as he notched his sixth game of 20 points or more this season. Thompson drained a three-point shot from the corner and one from the top of the key to ignite a 27-2 run by the Bears to gain a 28-12 lead with 5:44 remaining.

The Bears have won 76 consecutive games when holding

their opponents under 60 points. WUSTL also recorded a three-point shot for the 299th consecutive game.

The Bears (17-1, 7-0 UAA) play their first home game in three weeks Friday, Feb. 6, hosting New York University, and then play Brandeis at noon Sunday, Feb. 8, at the WU Field House. With seven games to play in the regular season, the Bears hold a two-game conference lead over Brandeis.

Women's basketball tied for first in UAA

The No. 20 women's basketball team kept pace with the University of Rochester for first place in the University Athletic Association (UAA) standings with a pair of road wins over ranked conference opponents last week.

The Bears defeated No. 19 Brandeis University, 61-55, on Jan. 30 and topped No. 8 New York University, 63-53, on Feb. 1.

Senior Jaimie McFarlin scored 11 points and pulled down a team-high eight rebounds to lead WUSTL to the win over Brandeis. Two days later, it was sophomore Kathryn Berger that led the team in scoring, netting 11 points on 5-of-8 shooting against New York.

WUSTL improved to 14-4 overall and 6-1 in the UAA, remaining in a tie for first in the conference with Rochester.

The Bears will face New York at home in a rematch at 6 p.m.

Friday, Feb. 6. The 2008 WUSTL Sports Hall of Fame class will be honored at halftime. The women then host Brandeis at 2 p.m. Sunday, Feb. 8.

Women's track wins Rose-Hulman meet

The women's indoor track and field team tallied 188.50 points to take first place out of 10 teams at the Rose-Hulman Institute of Technology Indoor Engineer Invitational Jan. 31 in Terre Haute, Ind. The men's squad placed second in a field of nine schools with 115 team points.

Senior Danielle Wadlington and freshman Katie Hered both met NCAA provisional qualifying marks. Wadlington won the 55-meter hurdles with an NCAA time of 8.47, just 0.07 shy of matching the WUSTL school record. Hered won the pole vault, clearing an NCAA qualifying height of 3.45 meters.

The women's team placed first in nine events at the meet, while the men's team four first-place finishes.

Sophomore Ben Harmon won the long jump with a season-best leap of 6.63 meters, and sophomore Skyler Moots won the 800-meter run (1:57.74). Both Moots and Harmon were members of the team's second-place 1,600-meter relay squad (3:25.36).

Both teams return to action Friday, Feb. 6, competing in the two-day Illinois Wesleyan University Bob Keck Invitational.

LEED

More campus buildings await certification

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much we impact the environment through greenhouse gas and other emissions and resource depletion," said Matt Malten, assistant vice chancellor for sustainability.

"In addition, good green design can also make our facilities more healthy and productive places for our campus community to live and work in," Malten said. "We are looking forward to continuing to improve all of our new and existing buildings' performances as we follow the continually improving green building practices."

The Earth & Planetary Sciences Building was the first to be LEED certified on the Danforth Campus, in 2005. The University will construct all new buildings started in 2008 or later to meet at least LEED Silver qualifications.

In order to become LEED certified, a project must earn a certain number of "points," which are awarded by the USGBC for following green practices such as building with materials with recycled content; using rapidly renewable materials such as linoleum and wool; and designing and landscaping the area around the building to deflect heat and to require less water to maintain.

A building's level of certification is based on the number of points a building earns.

Platinum is the highest, followed by Gold, Silver and simply LEED-certified.

The Danforth University Center received points for following the previously mentioned criteria and incorporating many other green features, including:

- Low-flow faucets and water-conserving toilets.
- A 50,000-gallon rainwater tank below the building that

collects excess rainwater and groundwater. The water is then used to irrigate the building's landscaping.

- Light sensors near every outdoor window. The sensors measure the amount of sunlight entering the room and adjust light levels to maintain an even amount of light in the space. This is called daylight harvesting.

- Showers, which gives bicyclists, rollerbladers or walkers opportunities to freshen up after arriving and encourages alternative transportation.

- The use of locally and regionally extracted raw materials such as limestone and materials used to produce concrete.

Construction projects also can receive points for using energy-efficient heating and cooling systems and lighting, maintaining open space around the site and locating the project close to public transportation.

These are all features that WUSTL as a policy follows already when designing and constructing buildings, said Nancy Marshall, project manager in facilities who led the Danforth University

Center construction. "By implementing established University facilities standards for design and construction, Washington University is already very close to achieving basic LEED certification," Marshall said.

Three recently completed WUSTL buildings — The Village East and Harry and Susan Seigle Hall on the Danforth Campus and the Genome Sequencing Data Center (Silver) at the School of Medicine — are awaiting LEED certification.

WUSTL currently is in the design or construction phase of three projects that will seek LEED Silver or Gold certification: Stephen F. and Camilla T. Brauer Hall (Gold) and Phase 1 of the South 40 project (Silver) on the Danforth Campus and the BJC Institute of Health at Washington University (Silver) at the School of Medicine.

WUSTL currently is in the design or construction phase of three projects that will seek LEED Silver or Gold certification: Stephen F. and Camilla T. Brauer Hall (Gold) and Phase 1 of the South 40 project (Silver) on the Danforth Campus and the BJC Institute of Health at Washington University (Silver) at the School of Medicine.

Safety

Cameras already on residence halls

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comfortable relaxing and having fun," said Julie Feier, city manager of University City.

"Washington University provides financial support to the University City Police Department and assists with direct patrols," Feier said.

"The closed-circuit system will provide yet another means of keeping our community safe," Feier said.

WUSTL also is installing a closed-circuit television system at the entrances and parking lot of the 276 N. Skinker Building, located in St. Louis City, Strom said.

The University already uses closed-circuit television systems in the entrances and exits of the Danforth University Center and all residence halls on the Danforth Campus. Cameras also have been installed in the Snow Way, Lien and Danforth University Center garages. The cameras on the Greenway Walk and at the 276 N. Skinker building are the University's first off-campus systems.

Strom said that though the University is taking additional

measures to keep students, faculty and staff safe in the community, it is important to remember that personal safety is a shared responsibility. It is important to be aware of your surroundings and attentive to potentially risky situations while out walking.

The WUSTL police department offers the following safety tips:

- Avoid walking or jogging alone, and never walk or jog alone after dark.
- Do not wear music headphones while walking or jogging.
- Always walk or jog in a familiar area.
- Always choose a well-lit path and avoid dark or vacant areas.
- Be alert to your surroundings. If you suspect you are being followed, run in a different direction, go to the other side of the street and yell or whistle for help or head quickly to a lighted area, a group of people or an emergency telephone.
- When confronted by a thief, give them what they want and don't chase them.
- Carry a whistle to summon help. You can obtain a free whistle by calling 935-5084.
- Report suspicious activities to the police immediately.

For more information on safety tips or the television system, call the University Police at 935-5084.

Notables

Of note

Deanna M. Barch, Ph.D., professor of psychology in Arts & Sciences, has received a three-year, \$798,000 grant from the National Institute of Mental Health for research titled "Cognitive Neuroscience Task Reliability and Clinical Applications Consortium." ...

Peter M. Burgers, Ph.D., professor of biochemistry and molecular biophysics, has received a four-year, \$1 million grant from the National Institute of General Medical Sciences for research titled "Kinase Activation in the DNA Damage Checkpoints." ...

Roger Chamberlain, D.Sc., associate professor of computer science, has received a three-year, \$200,583 subaward from Oregon State University for research titled "Magnetologic Circuits and Architectures for Deeply Pipelined Algorithms." ...

Marco Colonna, M.D., professor of pathology and immunology and of medicine, has received a three-year, \$675,000 grant from the Juvenile Diabetes Research Foundation for research titled "The Immunoreceptor DNAM-1 in Type I Diabetes." ...

Livia Hinegardner, graduate student in anthropology in Arts & Sciences, has received a one-year, \$22,160 grant from the Wenner-Gren Foundation for research titled "Grassroots Video in Mexico City: Developing Counterpublics, Producing Citizenship." ...

Young-Shin Jun, Ph.D., assistant professor of energy, environmental and chemical engineering, has received a one-year, \$33,061

subaward from Shaw Environmental Inc. through a grant funded by the U.S. Environmental Protection Agency for research titled "Fate and Transport of Organic and Emerging Contaminants and Microorganisms During Wastewater Reuse Application." ...

Stephanie Kirk, Ph.D., assistant professor of Spanish in Arts & Sciences, and **Sarah Rivett**, Ph.D., assistant professor of English and of American culture studies, both in Arts & Sciences, have received a \$5,000 grant from the Program for Cultural Cooperation Between Spain's Ministry of Culture and United States Universities to fund a conference titled "Religious Transformations in the Early Modern Americas." ...

Robert Koff, Ph.D., director of the Cornerstone: the Center for Advanced Learning, has received a one-year, \$19,200 grant from the Alfred P. Sloan Foundation to study student migration patterns in and out of the science, technology, engineering and math fields. ...

Daniel Moran, Ph.D., assistant professor of biomedical engineering, has received a four-year, \$2,044,549 grant from the National Institute of Biomedical Imaging and Bioengineering for research titled "Development of a Thin-Film MicroECOG Electrode for Chronic Cortical Recordings." Also receiving the grant was Justin Williams, Ph.D., of the University of Wisconsin-Madison. ...

Dipanjana Pan, Ph.D., research instructor in medicine, has received a four-year, \$308,000 grant from the American Heart Association for research titled "A Nanomedicine Approach to Coronary Ruptured Plaque With Spectral Computed Tomography." ...

Marcus Raichle, M.D., professor of neurobiology, of neurology, of radiology and of biomedical engineering, was awarded the Ralph W. Gerard Prize in Neuroscience at the Society for Neuroscience annual meeting. He shares the \$25,000 prize with Mortimer Mishkin, Ph.D., of the National Institute of Mental Health. The award recognizes Raichle for outstanding contributions to the study of human brain function through the development and use of positron emission tomography and functional magnetic resonance imaging. ...

Yoram Rudy, Ph.D., the Fred Saigh Distinguished Professor of Engineering, has received a \$271,356 grant from Fondation Leducq in France as a member of the Transatlantic Alliance for Calmodulin Kinase II Signaling in Heart Disease. ...

Norman J. Schofield, Litt.D., Ph.D., the Dr. William Taussig Professor of Political Economy and director of the Center in Political Economy, has been named a W. Glenn Campbell and Rita Ricardo-Campbell National Fellow at the Hoover Institution, Stanford University. Schofield will work on an original research project, "The Political Economy of Democracy and Autocracy," during the fellowship. His residency dates are May 2009 through July 2009. ...

Leonid Shmuylovich, a student in the M.D./Ph.D. program at the School of Medicine, was awarded the Nico Westerhof Award for "Striking New Concepts" by Beginning Investigators from the Cardiovascular System Dynamics Society. ...

Jason C. Woods, Ph.D., senior research scientist in physics and



Many happy returns Margaret Bush Wilson, prominent civil rights attorney in the 1960s and emerita trustee, receives a certificate from Chancellor Mark S. Wrighton during her 90th birthday celebration Jan. 30 at the Scott Joplin House in St. Louis. Wilson was the first woman to chair the board of directors of the National Association for the Advancement of Colored People and the second woman of color admitted to practice law in Missouri. A St. Louis native, she served on WUSTL's Board of Trustees from 1978-1987 and is a charter member of the Arts & Sciences National Council.

assistant dean of Arts & Sciences, has received a four-year, \$1,508,000 grant from the National Heart, Lung, and Blood Institute for research titled "Evaluation of Endobronchial Interventions for COPD via CT and 3He MRI." ...

Barbara Zehnbauser, Ph.D., professor of pathology and

immunology and of pediatrics, has received a one-year, \$74,000 grant from the National Institutes of Health for research titled "Specimen Preparation for Construction of Well-Annotated Progression and Prognostic Tissue Microarrays (TAMs) for Invasive Breast Carcinoma for Use in Breast Cancer Research."

Court of Appeals session at law school Feb. 11

The 8th U.S. Circuit Court of Appeals will hold a special session at 9 a.m. Wednesday, Feb. 11, in the School of Law's Bryan Cave Moot Courtroom in Anheuser-Busch Hall.

The public is invited to hear three appeals cases related to death penalty staffing and protocols; an insurance company's liability in a child abuse case; and property damage to a towboat and appellate procedure, including notification by e-mail.

The event is a continuing program in which the Court of Appeals periodically holds sessions in law schools as part of an educational program.

Hearing oral arguments will be judges William Jay

Riley, J.D., Lavenski R. Smith, J.D., and Bobby E. Shepard, J.D.

A question-and-answer period on procedural issues and judicial clerkships will follow the session.

The event is open to the public, but visitors are asked to enter and exit only during breaks between oral arguments. No backpacks, bags, duffle bags, laptops or cameras are allowed in the courtroom.

No food or drink is allowed in the courtroom, and cell phones must be off.

Case briefs for the oral argument session will be on temporary reserve in the Law Library under "8th Circuit Special Session."

For more information, call 935-6430 or visit law.wustl.edu.

Campus Author

Larry May, Ph.D., J.D., professor of philosophy in Arts & Sciences

Aggression and Crimes Against Peace

Cambridge University Press (2008)

Larry May, Ph.D., J.D., professor of philosophy in Arts & Sciences, wants to turn the traditional understanding of aggression on its ear.

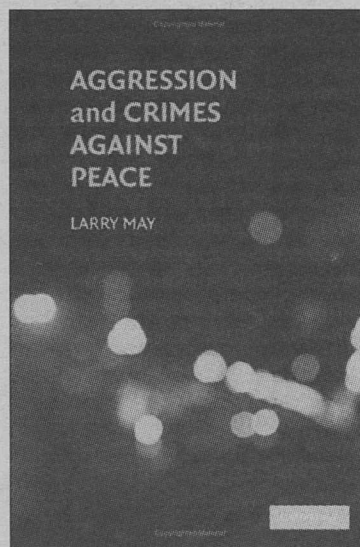
In "Aggression and Crimes Against Peace," the third in his trilogy on the philosophical and legal aspects of war and conflict, May locates a normative grounding for the crime of aggression — the only one of the three crimes charged at Nuremberg that is not currently being prosecuted — that is similar to that for crimes against humanity and war crimes.

He considers cases from the Nuremberg trials, philosophical debates in the Just War tradition, and more recent debates about the International Criminal Court as well as the hard cases of humanitarian intervention and terrorist aggression.

His thesis refutes the traditional understanding of aggression. At Nuremberg, crimes against humanity charges were only pursued if the defendant also engaged in the crime of aggression. May argues for a reversal of this position, contending that aggression charges should be pursued only if the defendant's acts involve serious human rights violations.

This is the third book in an award-winning trilogy.

The first, "Crimes Against Humanity: A Normative Account" (2005), was named



the best book in social philosophy by the North American Society for Social Philosophy, honorable mention from the American Society of International Law and Outstanding Academic Title by the American Library Association's Choice Magazine.

The second, "War Crimes and Just War" (2007), won the Frank Chapman Sharp Prize for best book on the philosophy of war and peace and was named Outstanding Academic Title by the American Library Association's Choice Magazine.

"Aggression and Crimes Against Peace" has been awarded the book of the year prize from the International Association of Penal Law, American section.

In the book, May, who also is a

strategic research professor of social justice at the Centre for Applied Philosophy and Public Ethics at Charles Sturt University in Canberra, Australia, tries to link the 1,500-year-old "just war" tradition with more contemporary themes, like the Iraq War and special courts in Bosnia and Sierra Leone.

May proposes a way to re-examine the concept of aggression.

The current concept, in use since 1974 and based on a United Nations resolution, states that aggression is "the use of armed force by State against the sovereignty, territorial integrity or political independence of another State, or in any other manner inconsistent with the Charter of the United Nations."

May argues that the definition should be updated since there may be cases where the use of force against state sovereignty is not aggression, such as in cases of humanitarian intervention. The definition also does not address terrorist organizations that can engage in acts of aggression when they act like states.

"My view is that crimes of aggression are deserving of international prosecution when one state undermines the ability of another state to protect human rights," May writes in the book's introduction.

— Neil Schoenherr

Obituaries

Torack, retired Alzheimer's researcher, 81

Richard M. Torack, M.D., professor of pathology and immunology from 1968-1992, died Jan. 22, 2009, at Delmar Gardens of Meramec Valley in Fenton. He was 81.

Torack was a pioneering researcher in dementia during his tenure on the School of Medicine faculty. After his retirement in 1992, he continued his research as a clinical professor of pathology and immunology until 2000. His work over the three decades helped lead to the creation of the Alzheimer's Disease Research Center (ADRC) at the School of Medicine.

"It was always a pleasure to interact with Dr. Torack because he examined issues from a unique, challenging and sometimes unconventional perspective," said John C. Morris, M.D.,

the Harvey A. and Dorismae Hacker Friedman Professor of Neurology and director of the ADRC. "He was warm, gracious, supportive and had a delightful sense of humor."

Services were held Jan. 31 at Mary Queen of Peace Catholic Church. Memorial contributions may be made to the Alzheimer's Disease Research Center, 4488 Forest Park Ave., St. Louis, Mo., 63108.

Dillon, 82

Richard T. Dillon, J.D., the Lehmann Visiting Professor of Law in 1990, died Jan. 21, 2009, in Hospice Woodside in Pinellas Park, Fla., after a long illness. He was 82.

Washington People

When Washington University students get called to Tamara King's office on the South 40, it's as often as not like being summoned to the principal's office back in high school. Something's wrong, and there's a price to be paid.

But King, J.D., who was a lawyer and an assistant district attorney in Pennsylvania before coming to WUSTL in 1999 as director of judicial programs, says it's just this challenge that keeps her coming to work each day.

Whatever the case is before her — academic integrity or behavioral conduct — King's constant mantra is fairness, and her desire is to perform a balancing act between protecting the University's interests and educating students about inappropriate behavior and what they can do to learn from their mistakes.

So now she's a lawyer not really working as a lawyer but nonetheless working to shepherd justice. So what's it take to do her job? A sense of humor is a good place to start, she says.

"You cannot work as closely as I do with students on very difficult issues and not have a sense of humor," says the 45-year-old who grew up in Easton, Pa., on the border of Pennsylvania and New



Director of Judicial Programs Tamara King, J.D. (left), confers with undergraduate Caitlyn Clark, one of her four-year advisees, who has her sights set on law school. "Tamara King never ceases to amaze me with her ability to handle each student's case with a balance of sensitivity, fairness and professionalism," says Leah Merrifield, special assistant to the chancellor for diversity initiatives and a member of the University Judicial Board. "And, even though her position constantly brings her in contact with students behaving badly, she uses her contact with our students as teachable moments."

By STEVE GIVENS

Tough but fair

King doles out discipline while ushering growth

Jersey, 85 miles from New York City and 55 miles north of Philadelphia. "We're dealing with negative behavior all the time, so I always approach it believing there's got to be a silver lining somewhere in this dark cloud that looms over a student's head."

"But I also am a strong believer in treating the student, no matter what they've done, with the utmost respect," she says. "I need to be able to say to a student, 'You're not a bad person, you just made a bad decision, and here's what that decision is going to cost.'"

King's colleagues and supervisors echo and confirm that her approach to disciplinary action is working and making WUSTL a better, more caring environment for all students.

"What makes Tamara extremely valuable is that she understands the context of the work she's doing and that it's a critical part of our community and to a young person's coming of age," says James E. McLeod, vice chancellor for students and dean of the College of Arts & Sciences. "She understands young people and has the capacity to be both firm and understanding in very difficult circumstances."

Her immediate supervisor, Justin Carroll, concurs.

"Tamara is a no-nonsense straight-shooter when dealing with students, and they respect her for that," says Carroll, asso-

ciate vice chancellor and dean of students. "She has a very difficult job dealing with a part of undergraduate life that is never talked about. One of Tamara's most important responsibilities is communicating to students the principles that are important to being a member of our community."

"Sometimes, young people fall short of our expectations. During the past 10 years, Tamara has helped countless students learn what it means to be a responsible citizen of our community. She is tough but very fair," Carroll says.

A life 'full of firsts'

Growing up in a small town, King always knew she wanted to go to college and do well, which was not necessarily the expectations for much of the African-American population in her community, she says. In her high-school graduating class of 625 students, there were only two African-American women — and no African-American males — who went to college right out of high school. Those expectations were set high at home.

"There was never a question about 'if you go to college,'" she says. "It was always, 'when you go to college.' I always say my life is full of firsts. In that town, I was the one who, in their eyes, succeeded, did well, went to college, became a lawyer."

As a Penn State undergraduate in the early 1980s, King says she endured racism in the rural setting of State College, Pa. From being treated negatively by white cafeteria workers to all-too-common blackface minstrel shows and racist Halloween masks, she knew it wasn't safe to venture more than 10 miles outside of the university campus. But those experiences helped build her character and spurred an interest in the law and politics.

She went to New York University for law school and then returned home to see how she could best help her community. She established a successful law practice and served on local boards and committees. Eventually, she came to the attention of her county's district attorney and became the first African-American ever hired in the district attorney's office in its 200-year history.

"The DA said, 'Tamara, I need you on my staff. I need women. I need people of color. You're well credentialed, and everyone I've talked to speaks highly of you.'"

And I said, 'We'll try this.' So, that was a big first. That was big news back then," says King, who went on to serve as assistant district attorney for six years.

Perfect fit at WUSTL

She moved to St. Louis when she married her husband, Michael, who was from the region. After years of a grueling schedule in the district attorney's office, she was ready for something a little different — an opportunity to make a difference in a new way and also start a family. She felt herself being drawn to a career in higher education and to WUSTL.

She first applied for a job as an assistant dean in University College. Dean Robert Wiltenburg, Ph.D., interviewed her but didn't think she was quite right for the job. But he did think she might be a perfect fit for another job available at the time — her current position.

"And that's how I ended up here," King says. "I always credit him for me ending up at the University."

Over her nearly 10 years in higher education judicial affairs, King has become heavily involved in the training and development of individuals who do what she does at other institutions, even though a small percentage of them have backgrounds in law.

This month, she will become the first African-American to serve as president of the Association for Student Judicial Affairs, an international organization that helps to promote, encourage and support student development professionals who have responsibility for student judicial affairs. It's a crucial organization for these people, she says.

"When you're on a campus where there's only one person responsible for student conduct, it's nice to have colleagues all over the country with whom you can pick up the phone and say, 'Hey, we're having this situation, and I know your institution dealt with it as well. How did you guys handle it?'" says King, who has watched the association grow over the past 10 years to approximately 1,700 members representing about 850 institutions across the world.

Shepherding students

King considers herself a true partner in the educational mission of the University, often encouraging students to seek the help they need to get where they want to be,

including counseling and alcohol education. And there have been experiences with students that make the tough times worth the occasional pain, she says.

She tells the story of a student who was terrified that his parents were going to remove him from the University following a behavioral issue and a disciplinary action. So she bet him a case of soda that, after she called his parents, he would still be in school.

As she anticipated, the case got resolved. And, after taking some time away from campus, the student returned and still comes by to visit her, sometimes with a 12-pack of Diet 7UP in hand.

"He's come full circle," she says.

Whether she's dealing with a particularly tough judicial case, advising the Black Pre-Law Society or meeting with her four-year advisees or prelaw students, King continues to be "blown away" by the students with whom she works.

"They're talented, they're smart, they're passionate," she says. "It's just amazing to be around young people who are so dynamic. So, I enjoy what I do because I feel like, in the end, I can make a huge difference in someone's life."

Tamara King

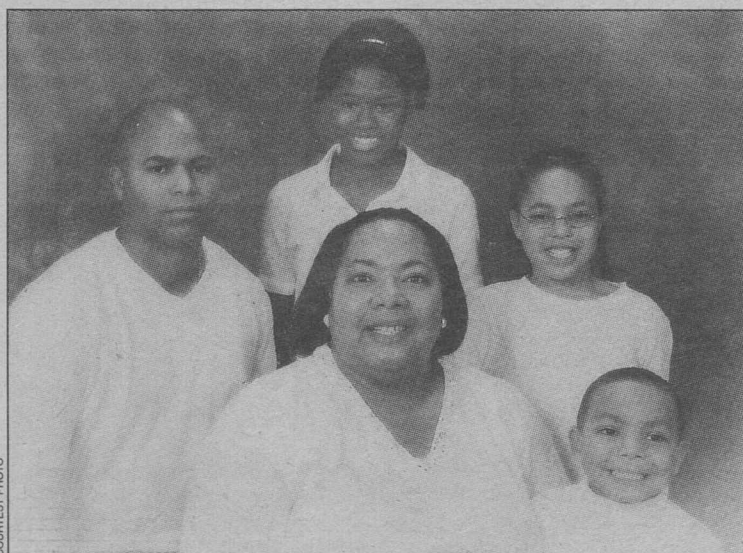
Education: B.A., political science, 1985, Penn State University; J.D., 1988, New York University School of Law

Family: Lives in Fairview Heights, Ill., with her husband, Michael, and children Chloé, 16, Chelsé, 8, and Michael, Jr. (called KJ for "King Jr."), 5

When she's not working: She's a typical busy mom, taking the kids to myriad activities, including Girl Scouts, basketball, soccer, t-ball, roller and ice skating and swimming lessons.

Advice to her children: "You have to decide what quality of life you want to have, and, based on that, you need to do the right things to get you there," she says.

If she didn't work at WUSTL: "I would start a nonprofit organization focused on providing life skills for underserved populations. I think it is a person's ability, drive and motivation that gets them to where they are," she says.



The King family: (clockwise from bottom center) Tamara; husband, Michael; daughters Chloé, 16, and Chelsé, 8; and son, KJ, 5.