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# Record

April 23, 2004

Volume 28 No. 30

Treasuring the Past



Washington University in St. Louis

Shaping the Future

Celebrating 150 Years

## Runway that launched juniors' fashions is still going strong

By LIAM OTTEN

In 1929, a college fashion show changed the apparel industry forever.

Irving L. Sorger, then-merchandise manager for Kline's, a tony St. Louis department store, was struck by the lack of clothing designed specifically for high-school and college-age women. To get a sense of just what those customers might want, he paid a visit to nearby Washington University, where the School of Fine Arts (now School of Art) had recently established a Dress Design Program.

Impressed by the quality of students' work, Sorger organized a fashion show at Kline's for local garment manufacturers. Eight dresses were selected for production. Sales surpassed all expectations.

The juniors' dress was born.

By the mid-1930s, Sorger's continued advocacy and consumer research had made juniors' fashions the engine driving a booming garment district. In 1934, according to the *St. Louis Post-Dispatch*, St. Louis manufac-

### 75th Annual Fashion Design Show

On May 2, the School of Art will present "The Know Show: The 75th Annual Fashion Design Show" at Saint Louis Galleria. The festivities will begin with a reception at 7:30 p.m. in the Galleria's Garden Court. The fully choreographed, Paris-style extravaganza will start at 8 p.m., followed by a dessert reception for the designers and audience.

turers became the first to market juniors' sizes, such as 5, 7 and 9.

Between 1935-1940, the number of local garment workers shot from 1,200 to 6,000. By 1949, more than 250 manufacturers employed 20,000 workers and annually shipped products worth \$170 million.

St. Louis was shaping the look of post-World War II America.

Sorger, meanwhile, became a kind of "godfather" to the Dress Design Program, endowing scholarships, scrounging donations of fabric and persuading local

See Fashion, Page 7



Philip D. Stahl, Ph.D. (left), shares a laugh with Jonathan S. Turner, Ph.D., at the Chancellor's Gala April 17 at the Charles F. Knight Executive Education Center. At the event, Chancellor Mark S. Wrighton announced Stahl as the winner of the Carl and Gerty Cori Faculty Achievement Award, and Turner as recipient of the Arthur Holly Compton Faculty Achievement Award. The awards will be conferred this fall.

MARY BUTKUS

## Stahl, Turner named faculty achievement award-winners

By TONY FITZPATRICK AND KIMBERLY LEYDIG

Philip D. Stahl, who combines his numerous scientific accomplishments with an untiring devotion to education and mentorship, and Jonathan S. Turner, who is internationally recognized for his accomplishments in computer networks and telecommunications, will receive the University's annual faculty achievement awards.

Stahl, Ph.D., the Edward Mallinckrodt Jr. Professor and head of the Department of Cell Biology and Physiology in the School of Medicine, is the recipient of the Carl and Gerty Cori Faculty Achievement Award.

Turner, Ph.D., the Henry Edwin Sever Professor of Engineering in the Department of Computer Science and Engineering, is the winner of the Arthur Holly Compton Faculty Achievement Award.

Chancellor Mark S. Wrighton made the announcement at the Chancellor's Gala April 17 at the Charles F. Knight Executive Education Center. The awards will be conferred at the Faculty Achievement Awards Program this fall.

"It is extremely rewarding to have the opportunity to work with outstanding faculty at Washington University," Wrighton said.

"These two faculty achievement awardees represent tremendous contributors to our quality and impact as a leading research university."

MARK S. WRIGHTON

"This year, it is privilege to recognize Professor Philip Stahl as the recipient of the Carl and Gerty Cori Faculty Achievement Award. He has been an exceptionally creative and prolific scientist, and he has also been one of our most effective and distinguished academic leaders as a department head in the School of Medicine.

"It is also wonderful to recognize Professor Jonathan Turner as the 2004 recipient of the Arthur Holly Compton Faculty Achievement Award. He has made pathbreaking fundamental contributions and has also made advances that have had profound practical applications.

"These two faculty achievement awardees

See Awards, Page 7

## Calorie restriction reduces risk of heart attack, stroke and diabetes

By GILA Z. RECKESS

People who severely restrict their caloric intake drastically reduce their risk of developing diabetes or clogged arteries, the precursor to a heart attack or stroke.

According to University researchers, some risk factors were so low they were comparable to those of people decades younger.

The study, led by John O. Holloszy, M.D., professor of medicine, will appear in the April 27 issue of the *Proceedings of the National Academy of Sciences*.

The first author is Luigi Fontana, M.D., Ph.D., research instructor in medicine.

"It's very clear from these findings that calorie restriction has a powerful, protective effect against diseases associated with aging," Holloszy said. "We don't know how long each individual actually will end up living, but they certainly have a much longer life expectancy than average because they're most likely not going to die from a heart attack, stroke or diabetes."

Research on mice and rats has shown that stringent and consistent calorie restriction increases the animals' maximum lifespan by about 30 percent and protects them against cancer.

This study is the first to

See Calorie, Page 3

### This Week In WUSTL History

#### April 27, 1917

Base Hospital 21, organized from the staff of the School of Medicine and accompanied by nurses from Barnes and St. Louis Children's hospitals, was mobilized and sent to France. The staff served 65,563 patients in 18 months.

#### April 29-30, 1915

Robert S. Brookings hosted the dedication ceremonies for the reorganized School of Medicine and affiliated hospitals. (See Picturing Our Past, Page 2.)

This feature will be included in each 2003-04 issue of the Record in observance of Washington University's 150th anniversary.

## Old-school tradition: Building the Hilltop one stone at a time

By ANDY CLENDENNEN

If you look carefully at the buildings on the Hilltop Campus — really carefully, not just with a passing glance as you head to lunch — you'll notice aspects of the design and architecture that make the University unique.

Some of the red granite blocks still show the drill holes where dynamite was inserted years ago in the quarries. Other blocks and stones have intricate carvings on them. And still other buildings and walls look as if they were thrown together with remnants and leftovers of stone.

While it makes for a picturesque setting, it also can be a headache when erecting new buildings to look like old buildings made of granite that started forming millions of years ago.

When Leonard Masonry Inc. of St. Louis was asked to put up a building nearly 10 years ago, company President Jeff Leonard and

Project Manager Brad Kasten set out to find the closest match possible.

They didn't have far to go.

"A long time ago, because of transportation back in 1800s, they really had to localize their building materials," Leonard said. "So we started looking within about a 200-mile radius of St. Louis to find some place that was probably used, and we found this quarry, called Missouri Red Quarry, in Ironton, Mo."

After bringing some samples of the granite found to the University in 1992, the ball started rolling for Leonard Masonry — and has kept rolling at a steady pace. Of the past 10 granite and limestone buildings put up on campus, Leonard has built nine of them.

But it's not just a case of hacking out the rock and throwing up a building. It's much, much more involved than that.

About 1.5 billion years ago, hot magma from underground volcanoes cooled, forming coarsely crystalline red granite. Granite is an

igneous rock that is composed of four minerals: quartz, feldspar, mica and usually hornblende.

Because it hardens deep underground, it cools very slowly. This allows crystals of the four minerals to grow large enough to be easily seen by the naked eye.

The oldest granite quarry in the state opened near Graniteville in 1869. Granite taken from the site furnished the stone for the Eads Bridge and the cobblestone streets of St. Louis.

Other quarries north of Elephant Rocks State Park supplied the turned columns in the front porch of the governor's mansion in Jefferson City.

The same forces that produced the Ozark Mountains created the rocks in Elephant Rocks State Park.

So, when the Leonard Masonry people first headed down to Ironton, they figured they were on the right track.

See Stonemasons, Page 4



# Shakespearean actor to discuss 2 classics

BY LIAM OTTEN

**R**egicide, infanticide, sleepless nights and angry ghosts — just a few of the things Shakespeare's *Richard III* and *Macbeth* have in common. What's more, both title roles were originated by "Shakespeare's leading man," Richard Burbage.

On April 28, Shakespearean actor Gareth Armstrong, a former member of the Royal Shakespeare Company who also has portrayed both characters, will present "Hand in Hand to Hell: *Richard III* and *Macbeth* — An Actor's Perspective," the fifth annual Helen Clanton Morrin Lecture, for the Performing Arts Department in Arts & Sciences.

The event is free and open to the public and will begin at 11 a.m. in Edison Theatre.

A native of Wales, Armstrong has performed Shakespeare in more than 40 countries. He previously presented his one-man shows *Shylock* and *Doctor Prospero* at the University in 2001 and 2002, respectively.

"Hand in Hand to Hell" will illuminate *Richard III* and *Macbeth* from the standpoint of the performer, combing speeches and soliloquies from the plays with textual insights, historical speculation and theatrical anecdote.

"The plays are striking not only for the growth in Shakespeare's

artistry, but for the demands and expectations that these eponymous roles make on their actors," Armstrong said. "How much was the playwright influenced by the player, and how much were both affected by their 20 years of creative partnership and the expectations of that most important element, their audience?"

"Having inhabited the skins of these mass-murdering ogres, I aim to examine their motives, their personalities and their language in an illustrative and entertaining way, and to reveal why Shakespeare dubbed them both 'hellhounds.'"

Armstrong has performed at major regional theaters in the United Kingdom and London's West End. In productions of *A Midsummer Night's Dream*, he has played Oberon, Puck, Lysander and Snug. In *Twelfth Night*, he has played Orsino, Malvolio and Andrew Aguecheek.

The Morrin lecture was established in 1998 in memory of 1994 alumna Helen Clanton Morrin by her children — Peter Morrin, Kevin Morrin and Sheila Humphreys — as well as by friends and colleagues. Previous speakers include the renowned Shakespearean actress Jane Lapotaire and two-time Tony Award-winner Zoe Caldwell.

For more information, call 935-5858.

## Downtown marker to identify University's original campus

**A** historical marker will be placed on the southwest corner of 17th and Washington streets, near the site of the original WUSTL campus.

The installation at 4 p.m. April 30 will be followed by a reception at the University's nearby Des Lee Gallery, 1627 Washington Ave.

The plaque will read:

"Washington University in St. Louis

"Site of the first Washington University Campus

"Academic Hall, Washington University's first building completed on its original downtown campus, was located near this site when it opened for classes on September 8, 1856. The University moved to its current location on the western edge of Forest Park in 1905.

"Installed on the occasion of the University's Sesquicentennial celebration during the 2003-2004 academic year.

"Chancellor Mark S. Wrighton"



**All in good fun** Matt Balthazar (left) gets a face full of pudding, while Zach Callier soaks Joey Kline with water during the annual Thurtene Carnival April 17-18. The carnival is one of the University's oldest traditions, dating back to 1904. Nearly 120,000 people attended the event, which featured carnival rides, themed facades, food, game booths and student-performed plays. Proceeds from this year's carnival will benefit Youth In Need, a local charity. The combined efforts of Delta Gamma sorority and Sigma Nu fraternity won the Burmeister Cup for best facade and skit.



## Bang on a Can All-Stars, Glass & Riley at Edison

BY LIAM OTTEN

**T**hree of the most esteemed names in contemporary music will come together for a once-in-a-lifetime concert when Bang on a Can All-Stars take the stage with special guests Philip Glass and Terry Riley at Edison Theatre.

The performance, presented by the Edison Theatre OVA-TIONS! Series, will begin at 8 p.m. May 2.

The program will feature three seminal works of the 1960s. Glass will join the All-Stars for performances of his spare yet deeply influential compositions *Music in Fifths* and *Music in Similar Motion* (both 1969). After intermission, Riley will take the stage for his classic *In C* (1964), a piece that helped launch the minimalist movement.

Bang on a Can All-Stars are among the nation's premier performers of cutting-edge new music. Part jazz band, part rock band, part postmodern classical ensemble, the group features a unique instrumentation of clarinet, electric guitar, cello, bass, keyboards and percussion. The band comprises six of the finest

players from New York's Bang on a Can Festival, the renowned new music showcase begun in 1987.

The All-Stars first major collaboration came in 1989, and by 1991 their performances had become a regular highlight of the Bang on a Can Festival. In 1994, they released their first CD, *Industry*, followed by *Cheating*, *Lying*, *Stealing* in 1996.

Other recordings include *Music for Airports* (1998), *Bang on a Can: Steve Reich* (2000), *Renegade Heaven* (2001), *Terry Riley "In C"* (2001) and *Bang on a Can Classic* (2002).

In recent years, they also have become active commissioners of new works by emerging and established composers.

Glass has been at the forefront of American music for more than three decades. A graduate of the University of Chicago and the Juilliard School, he spent two years in the early 1960s studying with Nadia Boulanger in Paris, supporting himself by transcribing Ravi Shankar's Indian music into Western notation.

By the mid-1970s, Glass had created a large repertoire of new music for his performing group, The Philip Glass Ensemble, and for the Mabou Mines Theater Company, which he co-founded.

In recent years, Glass has written music for opera, dance, theater, chamber ensemble, orchestra and film, including scores for Martin Scorsese's *Kundun*, Peter Weir's *The Truman Show* and Stephen Daldry's *The Hours*.

In 2003, he premiered the opera *The Sound of a Voice* with David Henry Hwang; created the score to Errol Morris' film *The Fog of War*; and released the CD

*Etudes for Piano Vol. I, No. 1-10*.

He is working on *Orion*, a work for ensemble and world musicians commissioned by the 2004 Athens Cultural Olympiad.

Riley, a native of California, studied under North Indian raga vocalist Pandit Pran Nath and has collaborated extensively with David Harrington, founder and leader of the Kronos Quartet, whom he met while teaching at Mills College in the 1970s.

Riley's epic five-quartet cycle *Salome Dances for Peace* was selected as the best classical album of the year by *USA Today* and was nominated for a Grammy.

Riley has received countless commissions and has written for groups as diverse as the Saint Louis Symphony Orchestra, the Rova Saxophone Quartet, Array Music, Zeitgeist, the Steven Scott Bowed Piano Ensemble, The California E.A.R. unit, guitarist David Tanenbaum, The Assad Brothers, the Abel Steinberg-Winant Trio, pianist Werner Bartschi and the Amati Quartet.

Recently, *The Sunday Times* of London listed Riley as "one of the 1,000 makers of the 20th Century."

Edison Theatre programs are supported by the Missouri Arts Council, a state agency, and the Regional Arts Commission, St. Louis.

Tickets — \$28 for the general public; \$23 for seniors, students and University faculty and staff; and \$14 for WUSTL students and children under 12 — are available at the Edison Theatre Box Office and through all MetroTix outlets.

For more information, call 935-6543.

## PICTURING OUR PAST



In 1899, the oldest medical college in Missouri became part of the Department of Medicine at Washington University when the Missouri Medical College merged with WUSTL. In 1910, educator Abraham Flexner — a member of the research staff of the Carnegie Foundation for the Advancement of Teaching — authored a report titled "Medical Education in the United States and Canada," which found Washington University's medical department "inadequate in every essential respect." One year later, the University forged agreements linking the medical school and its faculty with St. Louis Children's and Barnes hospitals. Part of the merger agreement included the University building both "a first class hospital at a cost of not less than six hundred thousand dollars" and "first class medical school buildings at a cost of not less than two hundred thousand dollars." The complex was dedicated April 29-30, 1915, when the above photo of the Medical Campus was taken.

Washington University is celebrating its 150th anniversary in 2003-04. Special programs and announcements will be made throughout the yearlong observance.



## Campus Watch

The following incidents were reported to University Police April 14-20. 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.

### April 15

8:52 a.m. — A faculty member reported the theft of a portable DVD player and several handheld walkie-talkie units from his office in the Athletic Complex. The thefts occurred sometime between 9 a.m. April 14 and 8:45 a.m. April 15. There was no forced entry. Total loss is estimated at \$600.

2:57 p.m. — A construction worker reported that his vehicle was stolen from Parking Lot No. 4, near the southeast corner of Uncas A. Whitaker Hall for Biomedical Engineering. The truck was later used to steal a motorized scooter in St. Louis.

3:41 p.m. — A student left his laptop computer unattended in a third-floor study room in Nemerov Residence Hall from 1-2:45 p.m. Upon his return, the computer was missing.

5:20 p.m. — A person reported that she parked her vehicle in the green parking area in Parking Lot No. 4 (east of Brookings Hall) and upon her return, she discovered an unknown person had stolen her car.

University Police also responded to five reports of larceny, four auto accidents, three reports of property damage and one report each of drug offense, assault and judicial violation.



## School of Medicine Update

# Safe and Secure Low-income kids benefit from safety program

By KIMBERLY LEYDIG

As an emergency medicine physician, Randall S. Jotte, M.D., sees some of life's most preventable tragedies — drug overdoses, suicide attempts, victims of gang violence.

But the cases that affect him most involve the aftermath of a motor vehicle accident when a small child or infant wasn't restrained in a safety seat.

After witnessing hundreds of these injuries, Jotte and his emergency medicine team have decided to take a proactive approach to help remedy these preventable tragedies.

Last month, the team launched Safe and Secure, a prevention program that provides car and booster seats to Missouri children at the highest risk for motor vehicle injury and death.

With support from the University and the Missouri Foundation for Health, Jotte and his team received a \$100,000 grant to fund the Safe and Secure program.

"The single greatest threat to a child's health is a motor vehicle collision," said Jotte, an associate professor in the Division of Emergency Medicine. "The contrast between when small children are restrained in motor vehicle accidents compared to when they're not is devastating. It's often the difference between a child coming in with minor scrapes and bruises and the child suffering major trauma, often resulting in death."

According to the U.S. Centers for Disease Control and Prevention (CDC), car crashes are the leading cause of death for children.

Almost 2,000 children age 14 and under are killed in automobile crashes each year, and another 280,000 are injured.

Proper use of car seats reduces the risk of death significantly — as much as 71 percent for infants and by about 55 percent for toddlers.

The CDC also estimates that 50,000 serious injuries could be

**"This is such a fixable problem. We anticipate that the Safe and Secure program will mean fewer Missouri children die or are seriously injured in motor vehicle crashes."**

RANDALL S. JOTTE

prevented and 455 lives saved each year if all children under 5 used safety seats.

In spite of the dangers, 40 percent of American children 4 and under routinely ride unrestrained. In addition, fewer than 10 percent of 5- to 8-year-olds use booster seats, the recommended safety seat for this age group.

"This is such a fixable problem," Jotte said. "We anticipate that the Safe and Secure program will mean fewer Missouri children die or are seriously injured in motor vehicle crashes."

Working in cooperation with physicians, nurse practitioners and county health departments, Safe and Secure is offering free car and booster seats to families who live in the Missouri counties with the highest pediatric mortal-

ity rates from car accidents.

A study by Jotte's team determined that Carter, Reynolds and New Madrid counties in southeast Missouri and neighborhoods located in the 63104 ZIP code in the city of St. Louis have some of the worst childhood mortality

rates in the state.

The Safe and Secure program is providing more than 2,000 free car and booster seats to families from these areas who are living below the poverty level determined by Medicaid.

"Parents of children in the



Randall S. Jotte, M.D., associate professor of medicine, explains to Tondra Holman how to properly restrain her 1-year-old daughter, Kenisha, in a car seat provided by the Safe and Secure program at the Grace Hill Souland Neighborhood Health Center.

## Lung cancer therapy linked to painful side effects

By MICHAEL C. PURDY

University researchers have linked a painful side effect of lung cancer therapy to the amount of radiation a patient's esophagus receives and to simultaneous chemotherapy.

By quantifying the risk factors for esophagitis, the work may make it possible to reduce the problem, according to Jeffrey D. Bradley, M.D., assistant professor of radiation oncology and lead author of a paper recently published in the *International Journal of Radiation Oncology, Biology, Physics*.

Among their findings: Chemotherapy given at the same time as radiation treatment nearly doubles the risk of esophagitis.

"Treating the lung cancer is obviously the priority," Bradley said, "but if there's a way to deliver an effective dose without damaging the esophagus, radiation oncologists should do that."



Bradley

Bradley and his colleagues studied data on 166 patients with non-small cell lung carcinoma. Previous research into esophagitis had linked the condition to direct exposure to the beam used for radiation treatment, but in the new study researchers also examined partial exposure and other potential

causes.

Bradley plans to apply the new predictive parameters he and his colleagues have developed to data from a larger group of patients supplied by the Radiation Therapy Oncology Group, a cooperative group funded by the National Cancer Institute.

"If these parameters accurately predict the development of esophagitis in this larger group, then we're going to start talking to people who develop the software that radiologists use to predict how a radiation beam will affect patients," Bradley said. "If the parameters can be incorporated into that software, it should make it possible to avoid this painful side effect in at least some lung cancer patients."

## Calorie

**Restriction diet helps reduce heart-disease risk**  
— from Page 1

examine individuals who have been on calorie restriction diets for a long period of time.

The researchers recruited participants through a national organization called the Caloric Restriction Optimal Nutrition Society.

By eating small amounts of nutrient-dense foods, members of this group try to consume between 10 percent and 25 percent fewer calories than the average American while still attempting to maintain proper nutrition.

The 18 individuals who participated in the study had voluntarily been following this very low-calorie diet for three to 15 years. This group was compared with 18 age- and gender-matched individuals who ate a typical Western diet.

Holloszy's team found the two

groups not only differed in the number of calories consumed, but also in the composition of their diets.

Individuals in the calorie-restriction group ate about 1,100-1,950 calories per day depending on height, weight and gender, and these calories consisted of about 26 percent protein, 28 percent fat and 46 percent complex carbohydrates.

In contrast, the comparison group consumed between about 1,975 and 3,550 calories per day, with only 18 percent of their calories from protein, 32 percent from fat and 50 percent from carbohydrates, including refined, processed starches.

Atherosclerosis — clogged arteries that can lead to a heart attack or stroke — already is the leading cause of death in the Western world, and the problem is continuing to grow.

So Holloszy's team specifically focused on the risk factors for this condition. The researchers measured multiple indications of early or impending atherosclerosis,

including blood pressure and levels of several biological markers in the blood, including cholesterol and triglycerides.

They also measured the levels of glucose and insulin in the blood to gauge diabetes risk, another major health concern for Americans.

People in the calorie restriction group had total and low-density lipoprotein — known as LDL or "bad" cholesterol — levels comparable to the lowest 10 percent of the population in their respective age groups.

Their high-density lipoprotein — known as HDL or "good" cholesterol — levels were in the 85th percentile to 90th percentile for middle-aged men.

That finding was a surprise because HDL levels typically decrease when individuals follow low-fat diets to lose weight.

Triglyceride levels — which, when elevated, can lead to atherosclerosis — were even more impressive in the calorie restriction group: They were lower than more than 95 percent of

Americans in their 20s, despite the fact that the study participants' ages ranged from 35-82.

In contrast, cholesterol and triglyceride levels in the comparison group were in the 50th percentile for average middle-aged Americans. Moreover, 12 of the individuals in the calorie restriction group provided medical records from before and during the diet.

Their cholesterol and triglyceride scores also were close to the 50th percentile for middle-aged Americans before the diet, and levels fell the most dramatically during their first year of calorie restriction.

Blood pressure scores in the restricted group also were equivalent to those of much younger individuals. The average blood pressure in the normal diet group was about 130/80, which is standard for a typical American.

In comparison, the calorie restriction group's average was about 100/60, akin to the blood pressure of an average 10-year-old.

Fasting glucose and insulin —

both markers of the risk of developing diabetes — also were significantly lower in the calorie restriction group, with insulin concentrations as much as 65 percent lower.

All other risk factors measured also were significantly better in the calorie-restriction group.

They included body mass index, body fat mass, C-reactive protein and the thickness of the carotid artery, the main blood vessel that runs from the heart to the brain.

"These effects are all pretty dramatic," Fontana said. "For the first time, we've shown that calorie restriction is feasible and has a tremendous effect on the risk for atherosclerosis and diabetes."

The team is conducting a controlled, prospective study comparing calorie restriction to the average American diet.

The researchers ultimately hope to follow these individuals for a longer period of time to assess the long-term effects of calorie restriction on biological markers of aging.



# Stonemasons face challenges with each building

— from Page 1

"We did some research, went down to Ironton and brought some samples up," Leonard said. "Then we took some (University) people down there. And I think they were really pleased with the samples."

"We were talking to a person in the quarry who said he wasn't positive the granite was the same, but said, 'It's damn close, and if I was a betting man, I would have bet that's where the original stone was taken from.'"

But the fun is just beginning.

## Traveling rock show

After ordering 10,000 or 20,000 cubic feet of granite from the quarry, the evolution from old rocks that geologists study to a new, state-of-the-art building begins in earnest.

"We keep some granite in stock, but you never know how much you are going to need," said John Randolph, Missouri Red Quarries Inc. supervisor. "If they come and say they need 20,000 cubic feet and we only have 10,000 on hand, then we know we need to get to work. We don't want any delay for them."

"But you never know what they will need. It might be a small building, it might be a big building."

After getting the granite ordered and cut, the entire lot gets shipped out to a fabricator on the East Coast.

Leonard Masonry has worked with The North Carolina Granite Corp. for years, simply because no facilities exist locally to deal with granite.

"That granite is so hard that nobody around here has equipment that can cut it; not a lot of people want to work with Missouri red granite because it's so hard," Kasten said.

"Since we've been doing this for so long, we have the granite pre-packaged — cut to height before it makes its back way to St. Louis," said Steve Schulte, a supervisor with Leonard Masonry. "... It's a whole lot cleaner process now. I don't know how they did it in the old days — granite got put up on the scaffold, they chipped it and put it on the wall."

After cutting the granite into workable lengths, the fabricator sends the stone back to Leonard Masonry, and a team sets about getting the granite ready to make a building.

And in keeping with the tradition of old-time stonemasonry, much of the work is done by hand, out of necessity.

Most people notice that the granite blocks on the campus buildings don't have a smooth face. But the blocks don't come that way, and no machines exist to make them rounded, or with a "cabbage head."

So manual labor comes calling once again.

"We had to figure out how to face the stones like the old stones," Leonard said. "The trick is how much labor will it take to make the new stones look like the old stones from the 1800s."

"We ended up having to hand-pitch every face on every stone, which is probably what they did back in the late 1800s."

## Construction begins

Once the colors and mixes of the stones have been achieved, the first step of the construction

process is building a mockup. More than just using Popsicle sticks to build a scale model, the mockups erected by Leonard Masonry replicate the building almost to a T.

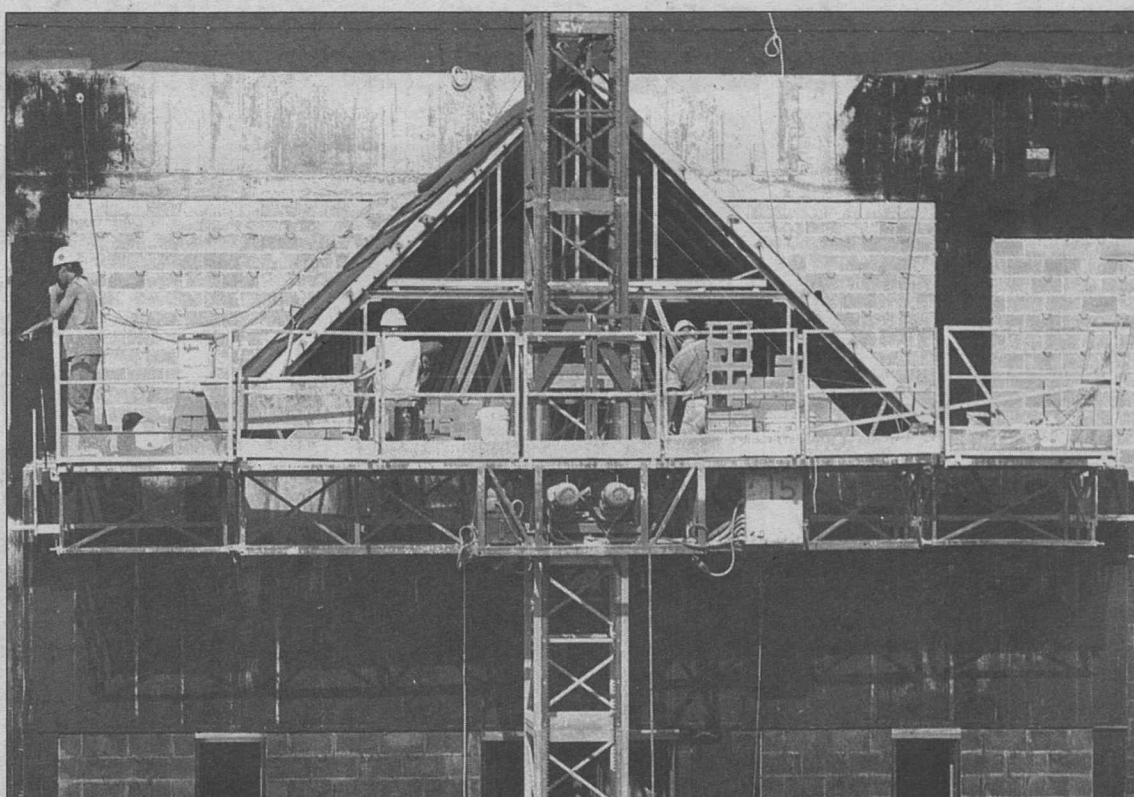
"We can actually make these full-scale," Kasten said. "They can be roughly 20 feet long and maybe 20 feet tall, because it would be the final one for approval. So we include a pretty good field of granite, limestone trim, a window and sometimes part of the roof to make sure all the different colors look right."

The mockups are always built near existing buildings to make sure the new building will match the old one as closely as possible.

Then comes the tricky part, depending on the building.

The course heights, or stone heights, can be different. Three different heights have been used throughout the campus, so when putting up a new building, the process is almost like putting together a jigsaw puzzle.

"Everything works on 3 and 11/16 inch increments," said Schulte, who has worked on all buildings the company has put



Above, workers from Leonard Masonry Inc. prepare the facade of the Earth and Planetary Sciences Building for additional stonework — a combination of granite and limestone to mirror the University's older buildings on campus. And below, a stonemason often has to craft the granite by hand to achieve the "cabbage head," or rounded, look of the stone.



up on campus since 1992. "The sizes are 3-11/16 inches, mid-height is 7-3/8 and the jumper is 11-1/16."

"When we started, we got the limestone companies to draw up the plans showing the building being completely granite, then it draws the limestone around the granite so the pieces feather in. All of the granite runs in underneath the limestone. We don't have to notch any of the granite to get to the limestone, even at the windows and the outside quoins."

The jumper block is the largest of the three different-sized blocks on any given wall, almost an anchor of sorts. Leonard Masonry works to scatter the jumper blocks somewhat ran-

domly across the wall, because as Schulte said, "You want to see the granite wall, but you don't want to pick out individual pieces."

This method is necessary for ensuring historical accuracy.

"What makes it interesting is the way they did the old buildings," Kasten said. "They put stones up there anywhere, and the joints of the granite didn't necessarily meet the joints of the limestone. You have to have all those joints line up, and it may be something that a lot of people wouldn't notice, but if it's not done the right way, you notice."

It goes much deeper than just lining up the joints or having the right course heights. From the very beginning, Leonard Masonry

has to determine how much of what color of which type of stone, mortar and caulk will be needed.

"You need a certain percent of each course height to make the matrix work," Leonard said. "We've sort of got it down to a fine art by now. If you don't have it straight by now, you need to get out of the business."

"The trickiest part is near the end. We've never run short of stone, but we've come close."

So about eight weeks before the building is completed, the contractors look at how much stone is needed to complete the job, how much stone is on hand and figuring final counts and numbers.

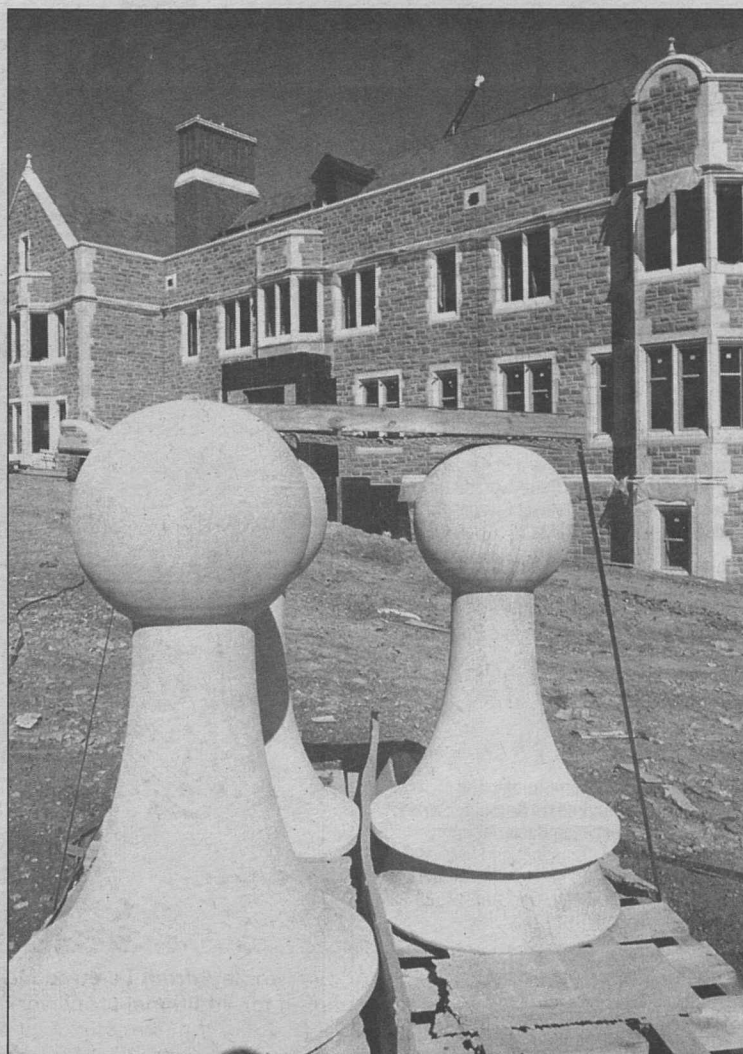
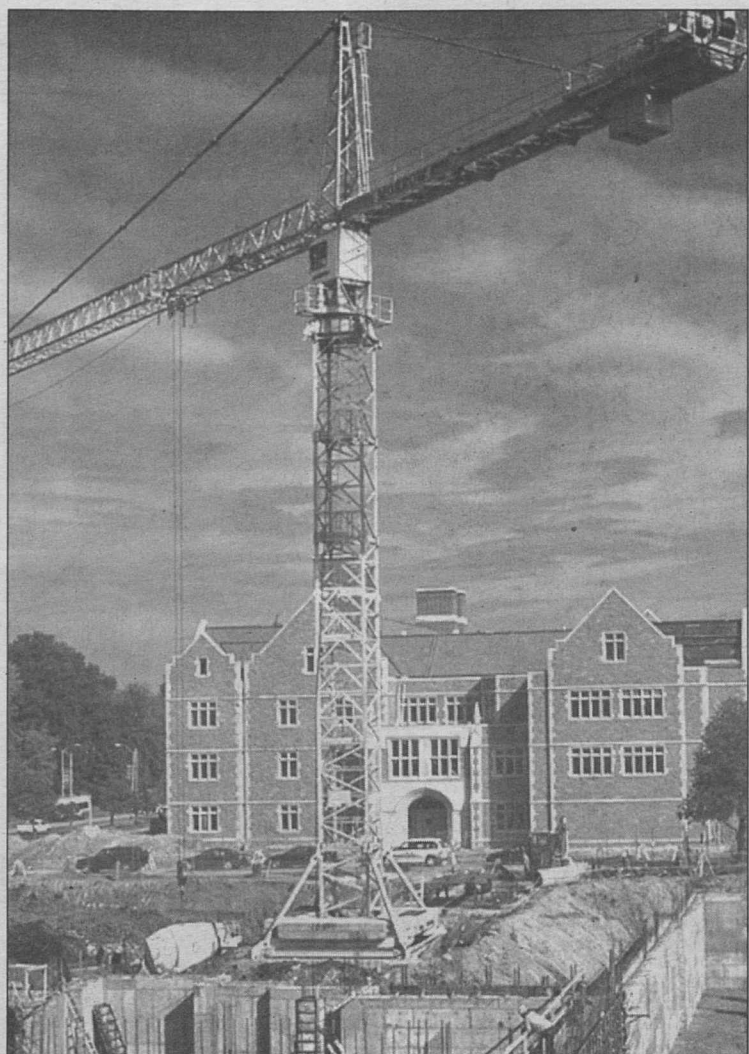
"We're looking at two colors, sometimes three colors," Leonard said. "Besides figuring out the lineal foot of each course height, we have to figure out what percentage of each color we need. The quality issue is that you don't want to have a blotch of dark and a blotch of light. It's a whole different installation quality issue. When you stand back and look at the jobs, you don't really read that. It's pretty complicated."

## More than mortar

It might be complicated, but when done right, the rewards — both physical and aesthetic — are bountiful.

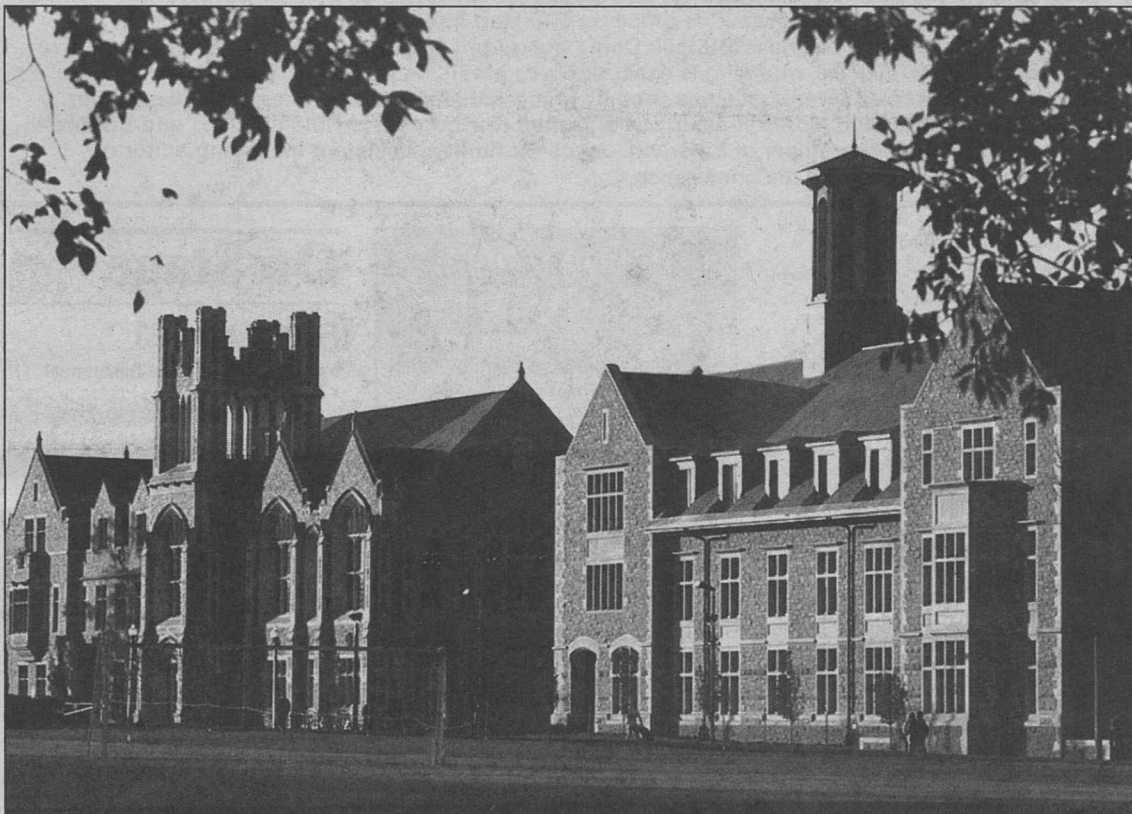






Leonard Masonry Inc. has won 12 awards for work completed on the Hilltop Campus, including awards for the Earth and Planetary Sciences Building (near left) and both Anheuser-Busch Hall and the Charles F. Knight Executive Education Center (below). The most recent buildings Leonard Masonry worked on are Uncas A. Whitaker Hall for Biomedical Engineering (far left, background) and the Earth and Planetary Sciences Building, which can be seen in its early stages in the foreground of the same picture.

All photos by David Kilper



Leonard Masonry won 48 regional and national awards between 1988-2002 from groups such as *Masonry Construction* magazine, the Masonry Contractors Association of America, the International Union of Bricklayers and Allied Craft Workers and the American Institute of Architects/Construction Products Council.

Projects recognized are as diverse as the Savvis Center; Cardinal Glennon Children's Hospital Phase IV; Shaw Park Plaza; the St. Louis Temple of The Church of Latter-day Saints; and several private residences.

But the crown jewel of Leonard Masonry might be the work done on the Hilltop Campus.

The company has won 12 awards alone for work completed for the School of Law, the Earth and Planetary Sciences Building, the Psychology Building, the Charles F. Knight Executive Education Center, the Arts & Sciences Laboratory Science Building and the Graham Chapel addition.

"The continued tradition

of collegiate Gothic architecture on the Hilltop Campus has made Washington University one of the most beautiful campuses in America," Chancellor Mark S. Wrighton said. "The quality of the masonry of our newer buildings has a lot to do with the lasting impression that our buildings leave on visitors and those who come here to work and study, and I am grateful for the creative and productive relationship that the University has developed with Leonard Masonry over the past dozen years."

In fact, the addition to Graham Chapel received the industry's highest award, the Tucker Architectural Award from the Building Stone Institute, in spring 2002.

The Tuckers are the architectural equivalent of the Oscars, the Grammys or the Pulitzers. The international award began in 1977 to recognize outstanding achievement in the industry. And while most recipients of the award are large-scale projects, the Graham Chapel addition was on a much,

much smaller level.

"One of the biggest challenges we've had in the past several years was Graham Chapel," Leonard said. "It was such a small addition that there was concern whether we should even do it and try to match it. When we actually went out there and looked at it before fabrication, all the limestone was V-grooved, little tiny V's, like a scratched surface. You'd have to walk up to see it."

"The funny part was on the vertical pieces, the V-grooving was running up and down, and on the horizontal pieces, it was going sideways. So we had to map out which way the V-grooves would run on the pieces when we were fabricating."

"All the V-grooves had to be done by hand. We made a tool kind of like a comb, because you couldn't individually do it."

That wasn't the first taste of the Tucker, though. Leonard Masonry also won the award in 1996 for

"I believe that great universities are to the modern world what Gothic cathedrals were to the late Middle Ages — symbols of our ideals and highest aspirations. I like to think that all of us, like the mostly anonymous stonemasons and architects of those days, add our bit to an endless structure, a structure that will keep alive for generations after we are gone our hopes and our sense of what is right and beautiful."

WILLIAM H. DANFORTH  
(from a 1994 letter to University alumni)

McDonnell Hall.

Despite the awards and accolades, Leonard Masonry just keeps on building. And building. Its most recently completed project was Uncas A. Whitaker Hall for Biomedical Engineering.

The company is currently working on the Earth and Planetary Sciences Building.

Through it all, though, new things keep popping up to test their knowledge and ability.

"Something I found out after we finished a project, something the architect told me, was that they used to just pick stones up off the ground and put them on a wall, and that doesn't really work anymore," Kasten said. "With little slivers here and little pieces there not matching up with the joints and the limestone, that wasn't working."

"And if you look at the granite on Graham Chapel, we had to match more of the old-style way of 'here's just a bunch of junk piled on the ground, let's put it in.' So we were having to round the edges of the granite, make it look different from some of the other buildings that we've done. The guys on the job spent a lot of time on the job doing that."

Other scenarios:

"Instead of having a 90-degree

corner, we had to round off every corner of each edge of the stones," Leonard said. "We didn't have to do that because we weren't butting into another building. Some of those buildings, that's just the way they did it because labor was cheap."

And the early workers used whatever they could find.

"I think that's the way the granite came off the block and has the tumbled look," Kasten said. "They threw it in the truck and it got all broken up. But who really knows how it got that way?"

Not many people indeed. But what they do know is that the high standards of the University carry over to its buildings, its contractors and its image.

"Our position is that obviously what (Leonard Masonry is) doing is a good thing, because they keep getting contracts," said Steve Rackers, the University's manager of capital projects and records in facilities. "We rely heavily on Steve Schulte, who helped develop our stone standards policy to help maintain the standards of construction and the quality of jobs on the building."

"Steve helped develop those standards to help ensure that the buildings will last as long as the University."





# University Events

## Fingers to Toes • Jazz at Holmes • Exotic Facts

"University Events" lists a portion of the activities taking place April 23-May 6 at Washington University. Visit the Web for expanded calendars for the Hilltop Campus ([calendar.wustl.edu](http://calendar.wustl.edu)) and the School of Medicine ([medschool.wustl.edu/calendars.html](http://medschool.wustl.edu/calendars.html)).

### Exhibits

**150 years** **History of Adult Education at Washington University, 1854-2004.** Through May 31. January Hall, Rm. 20. 935-4806.

**150 years** **Influence 150: 150 Years of Shaping a City, a Nation, the World.** Becker Medical Library. 362-7080.

**New Beginnings: The First Decade of the Washington University Medical Campus, 1915-1925.** Through May 31. Glaser Gallery, Becker Medical Library, 7th Fl. 362-4236.

### Lectures

#### Friday, April 23

**7 a.m.-6:30 p.m. Orthopaedics CME Course.** "Fingers to Toes: Comprehensive Orthopaedic Review for Primary Care Providers." (Continues 7:30 a.m.-1 p.m. April 24.) Cost: \$350 for physicians, \$295 for allied health professionals. Eric P. Newman Education Center. 362-6891.

**8-10 a.m. Center for the Study of Ethics and Human Values Symposium.** John Dubinsky Symposium on Corporate Governance and Ethics. Miriam Miquelon, adjunct prof. of law, and Stacy Jackson, asst. dean for experiential learning & professional development, moderators. Charles F. Knight Executive Education Center. 935-9358.

**9:15 a.m. Pediatric Grand Rounds.** "Pursuing an Understanding of Cystic Fibrosis Lung Disease and the Development of New Treatments." Michael Welsh, prof. of internal medicine, U. of Iowa. 454-6006.

**11 a.m.-12:30 p.m. Ethnocultural Work Group Lecture.** "Cultural Formulation of Psychiatric Diagnosis." Roberto Lewis-Fernandez, dir., Hispanic Treatment Program, N.Y. State Psychiatric Inst. and assoc. prof. of clinical psychiatry, Columbia U. Brown Hall Lounge. 286-2268.

**1-4:30 p.m. St. Louis STD/HIV Prevention Training Center CME Course.** "Current Controversies in Viral STDs." Cost: \$50. U. of Mo.-St. Louis, S. Computer Bldg., Rm. 200A. To register: 747-1522.

#### Monday, April 26

**Noon. Molecular Biology & Pharmacology Seminar.** "Signaling Between Synapse and Nucleus During Long-lasting, Learning-related Forms of Plasticity." Kelsey Martin, asst. prof. of molecular and cell biology, U. of Calif., Los Angeles. South Bldg., Rm. 3907, Philip Needleman Library. 362-0183.

**Noon. Work, Families, & Public Policy Brown Bag Seminar Series.** "Women's Place: Urban Planning and Work-Family Balance." Katharine Silbaugh, prof. of law, Boston U. Eliot Hall, Rm. 300. 935-4918.

**4 p.m. Biology Seminar.** "Out With a Bang! The Myth and Meaning of Regulated Exocytosis in Tetrahymena." Aaron Turkewitz, assoc. prof. of molecular

genetics and cell biology, U. of Chicago. Rebstock Hall Rm. 322. 935-8838.

**4 p.m. Immunology Research Seminar Series.** "TNFR on T Cells." Robert H. Arch, asst. prof. of internal medicine. Eric P. Newman Education Center. 362-2763.

**4 p.m. Music Lecture.** "Parallel Performances: Marin Marais and Frère Jacques at Versailles." Sarah Ruddy, graduate student in musicology. Music Classroom Bldg., Rm. 102. 935-4841.

**4 p.m. Romance Languages & Literatures Lecture.** Rava Lecture. "The Persistent Puppet: Pinocchio's Afterlife in Contemporary Literature, Cinema and Popular Culture." Rebecca West, prof. of Italian, U. of Chicago. Brookings Hall, Rm. 300. 935-5175.

#### Tuesday, April 27

**Noon. Molecular Microbiology and Microbial Pathogenesis Seminar Series.** "Intersection Between Bacterial Pathogens and Signal Transduction Systems." Jack E. Dixon, dean of scientific affairs, U. of Calif., San Diego. Cori Aud., 4565 McKinley Ave. 362-6772.

**4 p.m. Chemistry Lecture.** "Novel Cycloaddition Strategies for Natural Product Synthesis." James Rigby, prof. and chair of chemistry, Wayne State U. McMillen Lab., Rm. 311. 935-6530.

**6 p.m. Architecture Monday Night Lecture Series.** Sam Fox Arts Center Lecture. "Sculptures and Related Images." Rachel Whiteread, artist, London. (5:30 p.m. reception, Givens Hall.) Steinberg Hall Aud. 935-6200.

#### Wednesday, April 28

**8 a.m. Obstetrics & Gynecology Grand Rounds.** "New Horizons in Cosmetic Surgery for Women." James B. Lowe, asst. prof. of surgery and dir., cosmetic surgery center. Clopton Aud., 4950 Children's Place. 362-1016.

**11 a.m. Performing Arts Department Lecture.** Annual Helen Clanton Morrin Lecture. "Hand in Hand to Hell: *Richard III* and *Macbeth* — An Actor's Perspective." Gareth Armstrong, actor. Edison Theatre. 935-5858.

**1-3 p.m. Academic Publishing Services Course.** "Strategies for Successful Grant Proposals." (Also 1-3 p.m. May 5 & 12.) Cost: \$60 per class or \$200 for all four. Special rates available. Moore Aud., 660 S. Euclid Ave. To register: 362-4181.

**4 p.m. Comparative Literature Seminar.** Annual William H. Matheson Seminar in Comparative Arts. "Realist Vision." Peter Brooks, Sterling Professor of Comparative Literature and French, Yale U. Brookings Hall, Rm. 300. 935-5170.

#### Thursday, April 29

**7:30-9 a.m. Olin Cup Lecture.** "Intellectual Property Protection." Ed Fickenscher, business development dir., office of technology management. Simon Hall, Rm. 109. 935-4512.

**Noon-1 p.m. Olin Cup Lecture.** "Idea/Opportunity Evaluation Workshop." Scott Naisbitt, assoc. and Kauffman Fellow, RiverVest Venture Partners. McDonnell Medical Sciences Bldg., Shaffer Conference Room. 935-4512.

**Noon. Genetics Seminar Series.** Kim McKim, Walkman Inst., Rutgers U. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

**1:10 p.m. George Warren Brown School of Social Work Spring Lecture Series.** "Understanding Social and Economic Change." Douglass C. North, Spencer T. Olin Professor in Arts & Sciences. Brown Hall Lounge. 935-6661.

**3 p.m. Physics Seminar.** "High Performance Computing at Wash U: The Center for Scientific Parallel Computing." Malcolm Tobias, postdoctoral research



**Wal-Mart wisdom** Anheuser-Busch Inc. senior executive Rick Davis (left) confers with John B. Menzer, president and chief executive officer of Wal-Mart International, at the Olin School of Business International Business Outlook Conference April 16 at the Charles F. Knight Executive Education Center. Menzer, who also is executive vice president of Wal-Mart Stores Inc., gave a keynote address titled "Wal-Mart Goes Global" to more than 200 conference attendees. Other speakers included Allan McArtor, chairman of Airbus North America Holdings Inc., and Edward L. Monser, chief operating officer of Emerson. Joyce Barnathan, assistant managing editor of *BusinessWeek*, moderated the conference.

assoc. in physics. (2:30 p.m. coffee.) Compton Hall, Rm. 241. 935-6276.

**4 p.m. Chemistry Lecture.** "Controlling Reactions and Watching Energy Flow in Gases and Liquids." F. Fleming Crim, prof. of chemistry, U. of Wisc. McMillen Lab., Rm. 311. 935-6530.

**4 p.m. Earth & Planetary Sciences Colloquium.** "Whence the Solar System's First Rocks?" Kevin D. McKeegan, prof. of geochemistry and cosmochemistry, U. of Calif., Los Angeles. McDonnell Hall, Rm. 361. 935-5610.

#### Friday, April 30

**8 a.m. Radiation Oncology Lecture.** Annual James A. Purdy Medical Physics Lecture. "Tomotherapy and Beyond" Thomas R. Mackie, prof. of medical physics, human oncology and engineering physics, U. of Wisc. Barnes-Jewish Hosp. Bldg., Steinberg Amp. 362-2866.

**9:15 a.m. Pediatric Grand Rounds.** "Modeling Tuberosus Sclerosis Complex in the Brain." David Gutmann, prof. of neurology. Clopton Aud., 4950 Children's Place. 454-6006.

**Noon. Cell Biology & Physiology Seminar.** "Structural Studies of Signaling Proteins with RGS Homology Domains." John J. G. Tesmer, asst. prof. of chemistry & biochemistry, U. of Texas. McDonnell Medical Science Bldg., Rm. 426. 362-1668.

**12:30-4:30 p.m. St. Louis STD/HIV Prevention Training Center CME Course.** "STD Update." Cost: \$70. (Continues 12:30-4:30 p.m. May 7 & 14.) U. of Mo.-St. Louis, S. Computer Bldg., Rm. 200A. To register: 747-1522.

**4 p.m. Music Lecture.** "Take Them for True: Exotic Facts and Fictions in Berlioz's *The Adventures of Vincent Wallace in New Zealand*." Inge VanRij, prof. of music, Victoria U., New Zealand. Music Classroom Bldg., Rm. 102. 935-4841.

#### Saturday, May 1

**7:30 a.m.-Noon. Gastroenterology/Medicine CME Course.** "Liver Disease: Therapeutic Challenges 2004." Cost: \$125. The Ritz-Carlton, St. Louis, 100 Carondelet Plaza. To register: 362-6891.

#### Monday, May 3

**Noon. Molecular Biology & Pharmacology.** "Ras Signaling and Growth Control." Dafna Bar-Sagi, prof. of molecular genetics & microbiology, State U. of N.Y. South Bldg., Rm. 3907, Philip Needleman Library. 362-0183.

**4 p.m. Immunology Research Seminar Series.** "Regulation of Immune Cell Functions by Novel Adaptor Molecules." André Veillette, adjunct prof. of immunology, Clinical Research Inst. of Montreal. Eric P. Newman Education Center. 362-2763.

### How to submit 'University Events'

Submit "University Events" items to Genevieve Podleski 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.

#### Tuesday, May 4

**Noon. Molecular Microbiology & Microbial Pathogenesis Seminar Series.** "IL-4 Enhancement of Poxvirus Lethality, Implications for Smallpox." R. Mark Buller, prof. of molecular microbiology & immunology, St. Louis U. Cori Aud., 4565 McKinley Ave. 747-2132.

**Noon. Program in Physical Therapy Research Seminar Series.** "Diabetic Osteopenia: Is It a Regional or Systematic Complication?" David R. Sinacore, assoc. prof. of physical therapy and of medicine. 4444 Forest Park Blvd., Rm. B108/B109. 286-1404.

#### Wednesday, May 5

**4 p.m. Biochemistry & Molecular Biophysics Seminar.** "Importance of Ground State Conformations and Transition State Stabilization in Enzymatic Reactions." Thomas Bruice, prof. of chemistry & biochemistry, U. of Calif., Santa Barbara. Cori Aud., 4565 McKinley Ave. 362-0261.

#### Thursday, May 6

**Noon. Genetics Seminar Series.** Maynard Olson, prof. of genome sciences and of medicine, U. of Wash. Cori Aud., 4565 McKinley Ave. 362-2139.

**4 p.m. Ophthalmology & Visual Sciences Seminar.** "Viscoelastic Properties of the Ocular Lens." Nathan V. Ravi, assoc. prof. of ophthalmology & visual sciences. Maternity Bldg., Rm. 725. 362-1006.

### Music

#### Friday, April 23

**8 p.m. Concert.** Washington University Jazz Band. Chris Becker, dir. Steinberg Hall Aud. 935-4841.

#### Thursday, April 29

**8 p.m. Jazz at Holmes.** Mike Parkinson Group. Ridgley Hall, Holmes Lounge. 935-4841.

### On Stage

#### Friday, April 23

**8 p.m. Performing Arts Department Production.** *The Good Person of Szechwan.* William Whitaker, dir. (Also 8 p.m. April 24, and 2 p.m. April 25.) Cost: \$12, \$8 for seniors, WUSTL faculty, staff & students. Edison Theatre. 935-6543.

#### Sunday, May 2

**8 p.m. OVATIONS!** Bang on a Can All-Stars with Philip Glass & Terry Riley. Cost: \$28, \$23 for seniors, students, WUSTL faculty and staff, \$14 for WUSTL students and children 12 and under. Edison Theatre. 935-6543.

### Sports

#### Thursday, April 29

**5 p.m. Men's Tennis vs. Principia College.** Tao Tennis Center. 935-4705.

#### Saturday, May 1

**2 p.m. Softball vs. Greenville College.** WUSTL Field. 935-4705.

#### Tuesday, May 4

**2 p.m. Baseball vs. Greenville College.** Kelly Field. 935-4705.

### And more...

#### Friday, April 23

**5-7 p.m. University Libraries Open House.** Kranzberg Illustrated Book Studio Open House. West Campus Conference Center, Lower Lvl. 935-5418.

**7 p.m. Gallery of Art Public Exhibition Tour.** Led by student docents. Gallery of Art. 935-4523.

#### Saturday, April 24

**9 a.m. Program in Physical Therapy Run for Research.** Tower Grove Park. For more information: [pt.wustl.edu/pt/pt.nsf/ql/rfr](http://pt.wustl.edu/pt/pt.nsf/ql/rfr).

**1-7 p.m. Bone Marrow Drive.** Vetta Sports-Hampshire, 6727 Langley. 454-2694.

#### Monday, April 26

**8 p.m. Writing Program Reading Series.** Master of Fine Arts readings. (Also 8 p.m. April 27 & 28.) Duncker Hall, Rm. 201, Hurst Lounge. 935-7130.

#### Sunday, May 2

**8 p.m. School of Art Fashion Show.** "The Know Show: The 75th Annual Fashion Design Show." Cost: \$50, \$25 for students. Saint Louis Galleria. 935-9090.

## Record

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Washington University community news

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## Chancellor's Concert to feature new commissions

BY LIAM OTTEN

The Washington University Symphony Orchestra and Washington University Chamber Choir will present the 2004 Chancellor's Concert at 3 p.m. April 25 in Graham Chapel.

The concert is free and open to the public. It will feature the premiere of three new compositions — commissioned for the University's Sesquicentennial — by Harold Blumenfeld, John MacIvor Perkins and Robert Wykes, professors emeriti from the Department of Music in Arts & Sciences.

"The Department of Music is fortunate to have three professors emeriti in theory and composition who are actively composing today," concert coordinator Sue Taylor said. "It is particularly exciting that, in this, the University's Sesquicentennial year, these composers are making fresh and original contributions to 21st-century music."

Dan Presgrave, instrumental music coordinator in the music department, conducts the 75-member symphony orchestra.

John Stewart, director of vocal activities, conducts the 65-member chamber choir.

The program will open with Wykes' *Celebration Fanfare*. Scored for 13 brass instruments and percussion, the piece's rhythmic content is based loosely on the speech rhythms of the University's motto, "Per Veritatem Vis" (Strength Through Truth).

Also to be featured is Perkins' *After and Before*, written specifically for the Washington University Symphony Orchestra, contrasts sections of nostalgic remembrance with active engagement of the present and quiet, reflective looks toward the future.

Blumenfeld's *For Sion! Oh Thee: Choral Cycle in Five Parts After Byron* is a setting of five Byron poems. Featured performers will be soprano Debra Hilla-brand and tenor Clark Sturdevant, both graduate students in vocal performance; clarinetist Paul Garritson, who teaches in the Department of Music; and cellist Elizabeth Macdonald, director of strings.

The program will conclude with Antonin Dvorák's *Symphony No. 9 in E minor (From the New*

*World*). The piece was written in 1893, during the composer's time in New York as director of the National Conservatory of Music. This year marks the centennial of his death.

Wykes, who served on faculty from 1955-1988, has written for film, theater and modern dance, in addition to his concert compositions. His major orchestral works have been performed by the Minnesota Orchestra, the Saint Louis Symphony Orchestra and the Philadelphia Orchestra.

Perkins, who served on faculty from 1970-2001, is the composer of some 35 works, including two one-act operas; several songs for voice and piano; and various compositions for orchestra, chorus, chamber groups and solo piano.

Blumenfeld, who served on faculty from 1950-1989, directed the Washington University/Civic Opera Theatre from 1962-1971. He was the first composer to devote extensive attention to the poetry of Arthur Rimbaud, culminating in 1996 with the two-act opera *Seasons in Hell*.

For more information, call 935-4841.

## Sports

### Softball team ties school wins mark

The No. 3 softball team tied a school record with 30 wins by winning all six games it played last week. On April 12, the Bears swept a doubleheader at Rose-Hulman Institute of Technology. On April 16, freshman Laurel Sagartz picked up her 10th and 11th wins of the season in a sweep at Millikin University.

The next day, the Bears swept No. 8 Illinois Wesleyan University and No. 12 University of Chicago at the Illinois Wesleyan Invitational in Bloomington, Ill. Against Chicago, Sagartz and Hannah Roberts faced off against each other in Game 2 in a meeting of two of the top pitchers in Division III. Roberts entered the game with a Division III-best 0.14 ERA, while Sagartz had a 0.30 ERA. Sagartz struck out 11 and allowed just two hits in the 1-0 win, making an unearned run in the fifth inning stand up.

The **baseball** team dropped three games last week. The Bears opened play April 15 at Illinois Wesleyan and lost, 14-3. Sophomore Ryan Corning and senior Ryan Argo each homered, providing WUSTL's only three runs of the day. The Bears dropped both ends of a home doubleheader against DePauw University on April 18. WUSTL led the first, 12-6, after five innings before DePauw rallied for a 13-12 win. In Game 2, the Bears led 9-4 after the third inning, but the Tigers rallied again for an 11-9 win.

The No. 12 **women's tennis** team swept McKendree College, 9-0, on April 13 at the Tao Tennis Center, giving head coach Lynn Imergoot career win No. 425. With the win, the Bears improved to 16-3 overall; they have won 13 of their past 14 matches. Imergoot is 425-155 in her 28-plus seasons at the helm for a .733 winning percentage.

The No. 7 **men's tennis** team posted a 2-1 record last week. On April 14, against McKendree

College, the Bears won all six singles and all three doubles matches. WUSTL then traveled to No. 22 DePauw and Carthage College. The Bears defeated DePauw, 4-3, but lost to Carthage by the same score.

The **track and field** teams had a busy weekend, sending representatives to both the Kansas Relays in Lawrence, Kan., and the Millikin University Classic in Decatur, Ill. The women's squad had a strong outing at the classic, placing fifth of 14 teams; the men took sixth place of 14 squads. Seniors Kammie Holt and Lindsey Clark-Ryan took home first-place honors to lead the women at the classic. Holt won the long jump with a mark of 5.33 meters (17-6), and Clark-Ryan won the triple jump with a mark of 11.04 meters (36-2 3/4). On the men's side, sophomore Greg Reindl took home the Bears' only individual title at the classic, clocking a season-best 1:55.01 in the 800-meter run.

## Awards

### Selection committee represents all 8 schools

— from Page 1

represent tremendous contributors to our quality and impact as a leading research university."

The selection committee for the awards includes three members each from Arts & Sciences and the medical school and one member from each of the University's other six schools.

Criteria for selection are:

- Outstanding achievement in research and scholarship;
- Recognized prominence within the community of scholars;
- Service and dedication to the betterment of the University; and
- Respected accomplishment in teaching.

The awards include a \$5,000 honorarium.

As head of cell biology and physiology for the past 20 years, **Stahl** has successfully recruited and mentored 19 faculty members. Last year, he was also named director of the Division of Biology and Biomedical Sciences.

He was the first man to receive the Women in Cell Biology Sen-

ior Career Recognition Award from the American Society for Cell Biology for his work on recruiting and mentoring women.

Stahl has also been an avid supporter of the educational mission of the University. He was instrumental in the conception of the new Farrell Learning and Teaching Center, which will foster formal and informal interactions among students as well as provide state-of-the-art teaching and seminar facilities.

Stahl is recognized for his investigations into the mechanisms involved in endocytosis, the process through which cells absorb external substances such as proteins. He is studying endocytosis and signal transduction in cancerous cells in an effort to understand how growth signals are internalized into cells.

Stahl is also investigating the ways in which pathogens and cellular debris are transported to sites inside cells where they can be broken down and destroyed.

**Turner's** early work on high-performance packet-switching systems and networks played a central role in the development of Asynchronous Transfer Mode technology, a flexible, reliable and efficient communications technology that was developed to

enable voice, data and video applications to co-exist in a common, high quality communications infrastructure.

With colleagues Jerome R. Cox Jr. and Guru Parulkar, Turner has led a series of major research projects that has contributed to the development of high-performance network technology and multimedia applications.

In 1997, the three also founded Growth Networks, a successful startup company, which developed electronic components for Internet routers with aggregate capacities of more than 10 trillion bits per second. In 2000, the company was acquired by Cisco Systems, which is expected to soon complete new high-performance systems based largely on the ideas and technologies developed at Growth Networks.

Turner's recent work centers on methods for improving the performance of Internet routers and making them more flexible by enabling them to host network plug-ins that serve as network-resident assists for end-to-end applications.

He has authored many widely cited publications and holds more than 20 patents for his work in high-performance communication systems.



A bridal gown with silk, satin and charmence and organza cascades, designed by School of Art fashion design senior Kristen Fammartino. On May 2, the School of Art will present "The Know Show: The 75th Annual Fashion Design Show" at Saint Louis Galleria.

## Fashion

— from Page 1

manufacturers — who frequently hired graduates — to underwrite new equipment.

The Fashion Design Show became an annual extravaganza, staged at swanky downtown hotels and featuring hundreds of outfits.

In 1941, the University became home to what is believed to be the nation's first four-year, degree-granting fashion program.

Today, both the Fashion Design Program (as it's now called) and the Fashion Design Show are still going strong.

Though St. Louis is no longer a manufacturing center, New York-based alumni, such as Paula Varsalona and Carolyn Roehm, have become internationally renowned couture designers. Recent graduates work for major fashion houses and clothing retailers, including Ralph Lauren, Tommy Hilfiger, Calvin Klein, Christian Dior, Nanette Lepore, Lilly Pulitzer, Nike, Lands' End, Fitigues, Lane Bryant, The May Co. and Federated Department Stores.

And on May 2, the School of Art will present "The Know Show: The 75th Annual Fashion Design Show" at Saint Louis Galleria. The fully choreographed, Paris-style extravaganza will feature dozens of professional and volunteer models wearing more than 100 outfits created by the program's 14 junior and nine senior fashion majors.

All clothing is chosen by a jury of professional designers, University faculty and leaders in the clothing industry. Outstanding student designers receive a variety of scholarships, cash prizes and awards.

Last year, approximately 500 people attended the event, raising about \$50,000.

"The Know Show is about knowledge," said Jeigh Singleton, head of the Fashion Design Program. "It's about showing off a body of work and a set of skills that students have accumulated."

"It's a way to say, 'We're here,

we know how to do this, look at us.'"

Designs will range from opera coats paired with colorful knitted evening dresses to sportswear, power suits, ball gowns inspired by flowers and the seniors' signature collections, each a fully coordinated line.

"The fashion program is structured the way business is structured, and students are treated like professionals," Singleton said.

"Fashion is the most immediate expression of culture. It's out there much sooner than anything else. And when students leave here, they're ready to be 'out there,' too."

In a Fashion Design Show tradition, the show will also highlight a single student-designed wedding dress, selected by competition. This year's juror is alumnus Dominic Ngo Mueller, a designer for J.C. Penney.

During the post-show reception, many of the featured couture creations will be available for purchase.

The Know Show marks the 10th year of collaboration between the University and the Galleria.

The show is chaired by 1976 alumna Susan Block and organized by a committee of volunteers, including show coordinator Jane Kairuz, Michael O'Keefe of Technical Productions and Gretchen Hafferkamp of Premiere Rentals.

For the 12th year, the models' hair will be done by Dominic Bertani of the Dominic Michael Salon, which also sponsors the Dominic Michael Silver Scissors Designer of the Year Award. The award, designed by nationally known metalsmith Roger Rimel, is presented to one outstanding senior at the end of the evening.

The models' makeup will be done by MAC.

General admission is \$50, \$25 for students. Tickets are available through the Edison Theatre Box Office, 935-6543, and at the Galleria Concierge Service Center. A limited number of tickets will be available at the door.

For more information, call the 24-hour fashion show hotline, 935-9090.



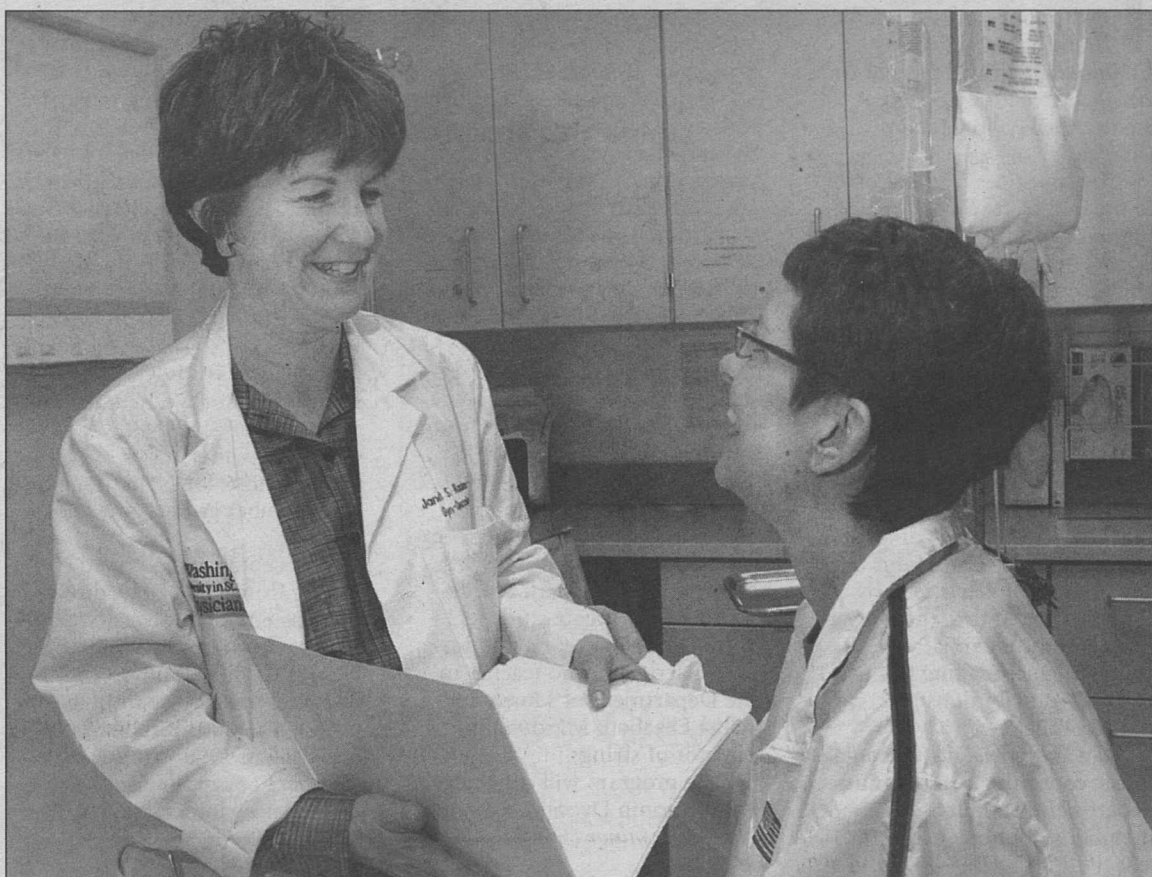
## Washington People

**T**here's a telling slip of the tongue when Janet S. Rader, M.D., associate professor of obstetrics and gynecology and of genetics, lists the things she enjoys about her job.

"I love taking care of patients," Rader says, "I love doing research, I love being a mom ..."

Rader pauses for a split-second to reorient herself and then jumps back into describing how her specialty as a gynecologic oncologist allows her to face a variety of challenges in the operating room, the clinic and the research laboratory.

She doesn't bring up her three sons again until she describes what she likes to do in her spare time (attending her sons' sporting



Janet S. Rader, M.D., associate professor of obstetrics and gynecology and of genetics, discusses the latest treatment options with patient Karen Robben. "Janet takes her patients very personally," says nurse coordinator Dana Viviano.

# The balancing act

From mom to role model to medical researcher, Janet S. Rader adeptly juggles it all

BY MICHAEL C. PURDY

events and orchestra concerts and going on family outings). But it's clear that whenever Rader thinks of the greatest joys in her life, her family inevitably springs to mind.

"Her kids come first — they are so important to her," says Dana Viviano, nurse coordinator for gynecologic oncology, who has worked with Rader for two years. "Her boys know that she has a busy, detail-oriented career, but they also have no doubt whatsoever that they're very, very important to her."

Rader is married to Charles Markman, an archaeologist who specializes in cultural-resource studies before construction projects begin to determine the impact a project may have on archaeological sites and historical properties.

Her oldest son, Nathaniel, is 17; Eliot is 13; and Gregory is 9. Several of Rader's family members, including her parents and her brother's family, still live in St. Louis.

Viviano can cite many examples of Rader's devotion to her sons — instances when Rader brought one of her sons to work and when she took one of them along to an out-of-town conference. She also frequently touches base with her family from the office.

One early March morning, as Rader, gynecologic oncology fellow Barbara Buttin and others finish surgery on a woman with ovarian

cancer, the conversation between Rader and Buttin turns to an upcoming surgical meeting.

"I had been thinking of going to that meeting and bringing my son along, but then I realized being there just wouldn't be fun for him," Rader says to Buttin.

### Devoted to patient care

Rader, born and raised in St. Louis, earned a bachelor's degree from Drake University in 1979 and a medical degree from the University of Missouri in 1983.

**"Janet has taught her nurses, residents, students and colleagues something that is one of her personal philosophies: When you hit a brick wall, take a right or left turn. She's not discouraged by the right turn or the left turn — she's creative and takes the turn."**

PAULA M. FRACASSO

After a residency at Michael Reese Hospital and Medical Center in Chicago and fellowships at the University of Chicago and Johns Hopkins University, she returned to St. Louis in 1990 as an instructor of obstetrics and gynecology at Washington University.

"Washington University is such a rich place," she says. "There are great scientists, there are great clinicians, and when you need it, there is always someone to pick up the phone and call and ask a question that falls outside your specialty."

Rader's research focuses on identifying the factors that can increase a woman's risk of developing cervical cancer.

"Right about the time when I started my fellowship, I worked in a lab that was studying human papillomavirus (HPV), which is involved in cervical cancer development," she explains.

"We know the virus is connected, but 70 percent to 80 percent of sexually active adults harbor the virus, and cervical cancer only develops in a much smaller percentage of women. So what other trigger factors are involved?"

Rader and her colleagues are looking for single-character changes in the genetic code that can increase cancer risk. Patients with weakened immune systems get cervical cancer at higher rates, so they are focusing a portion of their search on genes involved in immune system functions.

Scientists have also shown that HPV interacts with a number of proteins, and Rader's group is scanning genes for those proteins for variations that increase the chances of developing cancer.

Rader loves the fact that her specialty straddles the worlds of research, the clinic and the operating room.

"I love seeing patients, but I also like going to the lab, doing

surgery has really gone up. I think a lot of the stuff we saw and heard is hopefully falling away."

Fracasso says Rader has a helpful approach for dealing with tough situations.

"Janet has taught her nurses, residents, students and colleagues something that is one of her personal philosophies: When you hit a brick wall, take a right or left turn," Fracasso explains. "She's not discouraged by the right turn or the left turn — she's creative and takes the turn."

In addition to Rader's everyday activities as a role model for female surgery students, she recently served as president of the Academic Women's Network (AWN) at the School of Medicine.

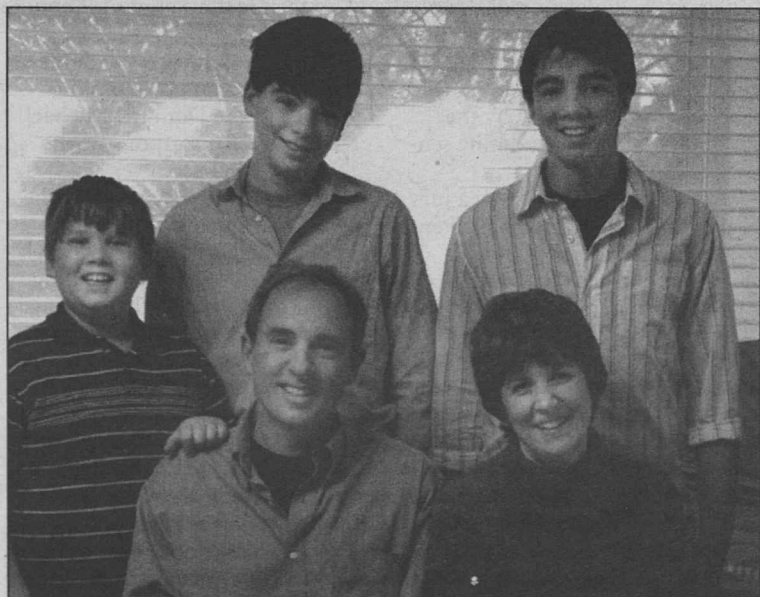
"The network is very pro-women's issues for students, residents and faculty, and she's been very influential in it," Fracasso says.

AWN has hosted seminars and sponsored speakers on scientific career development for women. It gives out awards to both M.D. and Ph.D. students for leadership and to faculty members for mentoring work. The group has also published a *Family Resource Handbook* for faculty members and students.

Rader suggests that one of the best ways she can inspire female students who aspire to be surgeons is to show them that it's possible to be both a dedicated surgeon and a devoted mother.

"Last night, the residents went out to happy hour," Rader says. "I don't think I've ever gone to a happy hour. I just can't."

"I've got to go home, I've got to see my kids, I've got to help them do their homework. I enjoy what I'm doing, and I do put in long hours, but when it's time to go home, it's time to go home."



Janet and Charles with their sons, (from left) Greg, Eliot and Nathaniel.

### Janet S. Rader

**Born:** Feb. 19, 1957

**Education:** B.A. in biology, Drake University, 1979; M.D., University of Missouri, 1983

**University positions:** Associate professor of obstetrics and gynecology and of genetics

**Family:** Husband, Charles Markman; children, Nathaniel, 17; Eliot, 13; Greg, 9

**Hobbies:** Cheering for her sons at their sporting events

### Inspiring role model

Rader is the University's only female faculty member in gynecologic oncology. She acknowledges that as a female surgeon, she's had to face some sexism over the span of her career, but she prefers not to dwell on it.

"People say some inappropriate things sometimes, but you just ignore it and move forward," Rader says. "The number of women in