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Record

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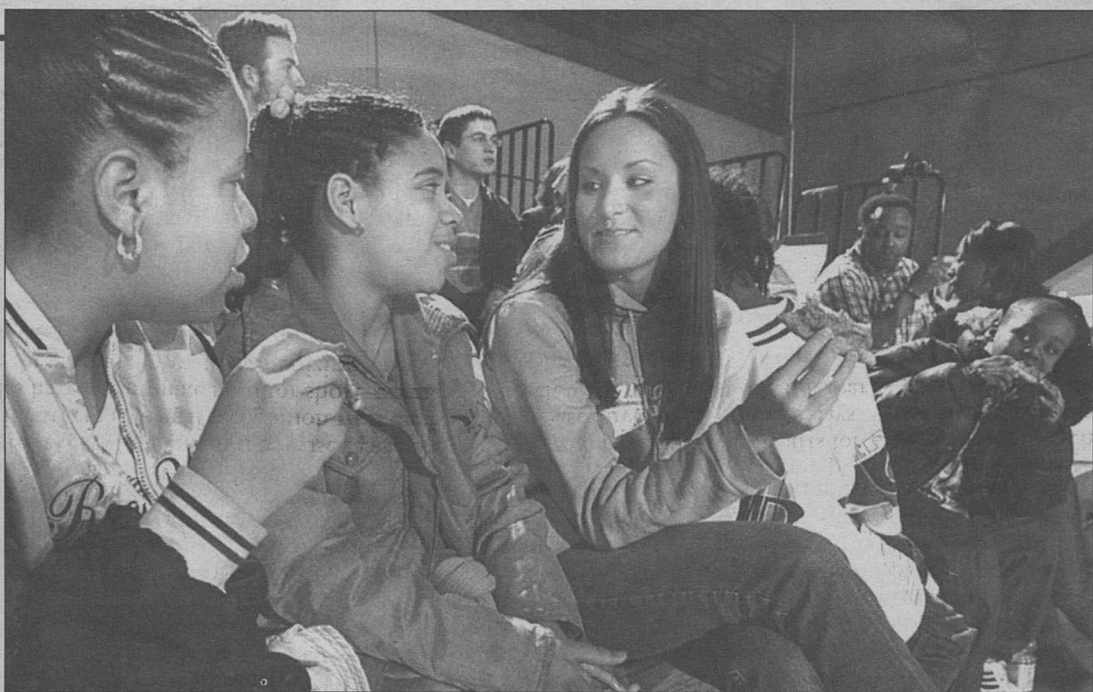
Treasuring the Past



Washington University in St. Louis

Shaping the Future

Celebrating 150 Years



JOE ANGELES

Students as role models (From right) Sophomore Crystal Bickoff shares pizza and conversation with 11-year-old Qhinchia Roberson and 14-year-old Sierra Stinson during the men's basketball game Feb. 20 at the Field House. Bickoff, along with several other student tutors from the Each One Teach One program, brought the younger students to the game. Each One Teach One provides an opportunity for University students, staff and faculty to tutor K-12 students in the city of St. Louis and to positively impact the lives of the region's youth through academic support, mentoring and friendship.

Fire lane parking guidelines revised

BY ANDY CLENDENNEN

So you want to run into the Campus Store for a minute, but there's no room in the parking lot — yet the fire lane is open!

Don't even think about it.

In the past, you might have been able to get away with it — but not anymore. Transportation and Parking Services has revised the guidelines for parking in restricted fire lanes, effective immediately.

After a thorough review of the previous policy, Transportation and Parking Services has developed a policy that will ensure adequate and appropriate fire lanes and emergency access for the University according to the requirements of the Clayton Fire Department.

Because some entities — such as facilities, the campus mail service and Bon Appétit — need to have limited access to fire lanes, Transportation and Parking Services will continue to work out solutions with such departments and individuals.

In cooperation with the Clayton Fire Department and University Safety Coordinator Paul Landgraf, certain fire lanes have been identified as areas where short-term parking is allowed.

Others have been identified as fire lanes that must be strictly maintained as "no parking" areas at

all times for emergency vehicle access only.

Departments and individuals can submit a request to parking services for the ability to park in the fire lanes identified as short-term parking areas. A placard will be issued to those individuals or departments needing that access.

The placard will not have a charge associated with it, but will be specific to each vehicle and will provide up to 10 minutes in these specified fire lanes.

All other vehicles in a fire lane will be ticketed and/or towed, consistent with previous policy and procedure.

There are two key changes in the revised policy.

One is that there is formal recognition that certain vehicles have a legitimate need for short-term parking in these areas. Formally recognizing this and issuing a parking placard differentiates this group from general parkers.

This is a major advantage for enforcement purposes because it clarifies the enforcement guidelines.

The second change is that parking services is partnering with University Police, who will also issue fire lane violations.

For more information on the revised policy, or to apply for a temporary permit, go online to parking.wustl.edu, or call 935-5601.

Diabetes progress Embryonic pig cells stop disease in rats

BY MICHAEL C. PURDY

An experimental cross-species transplant to treat diabetes has passed an early test in rats with better-than-expected results, suggesting the innovative approach might halt type 1 diabetes while greatly reducing the risk of rejection.

University scientists set up control and experimental groups of rats with diabetes. The experimental group received embryonic pig pancreas cell transplants and antirejection drugs to prevent the rats' immune systems from destroying the transplants.

The control group received only the transplants and no immune-suppression drugs. To the researchers' surprise, the control group's transplants grew unmolested by the immune system, halting the rats' diabetes and changing the focus of the study to transplanting without the need

for immune suppression.

"Every once in a while you get lucky, and now we have the possibility of transplanting these pig cells and not having to worry about rejection," said Marc R. Hammerman, M.D., the Chro-

molloy Professor of Renal Diseases in medicine and leader of the study.

The results will be published in the April issue of *The American Journal of*

Physiology-Endocrinology and Metabolism.

Hammerman, an endocrinologist and director of the Renal Division, is a leader in the emerging field of organogenesis, which is focused on growing organs

See **Diabetes**, Page 6



Hammerman

University launches its annual A&E Council drive; goal is \$30K

BY LIAM OTTEN

A recent study by Stanford University and the Carnegie Foundation for the Advancement of Teaching shows that young people who participate in the arts for at least three hours on three days each week for at least one full year are:

- four times more likely to be recognized for academic achievement;
- three times more likely to be elected to class office within their schools;
- four times more likely to participate in a math and science fair;
- three times more likely to win an award for school attendance; and
- four times more likely to win

an award for writing an essay or poem.

Of course, the Arts & Education (A&E) Council of Greater St. Louis has known such things for decades. Since 1963, the A&E Council — which does not receive government support and relies solely on donations from local individuals and institutions — has raised more than \$63 million to support hundreds of St. Louis-area arts, cultural and educational organizations.

University employees are again being asked to contribute to the A&E Council's annual fund drive.

"It is important that we all do our part to keep the arts thriving in St. Louis," Chancellor Mark S.

See **A&E**, Page 7

This Week In WUSTL History

Feb. 28, 1931

The Mallinckrodt Institute of Radiology opened.

Feb. 29, 1872

William Greenleaf Eliot was inaugurated as the third chancellor.

March 1855

The University accepted an offer from John How to establish a reading room and library. One of the original Eliot Seminary directors, How was a prominent businessman and served as mayor of St. Louis from 1853-57.

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

Research: 'Heavy metal snow' on Venus is lead, bismuth sulfides

BY CAROLYN JONES OTTEN

Lead sulfide — also known by its mineral name, galena — is a naturally occurring mineral found in Missouri, other parts of the world, and now ... other parts of the solar system.

That's because recent thermodynamic calculations by University researchers provide plausible evidence that "heavy metal snow," which blankets the surface of upper altitude Venusian rocks, is composed of both lead and bismuth sulfides.

The findings — by Laura Schaefer, research assistant in the Planetary Chemistry Laboratory, and M. Bruce Fegley Jr., Ph.D.,

professor of earth and planetary sciences in Arts & Sciences — discount previous hypotheses that the snow was made of elemental tellurium. They are important also because lead sulfide "snow" could allow the dating of Venus by lead isotopes, provided a soil sample can be obtained in a future mission.

Schaefer and Fegley's work was published in a recent issue of *Icarus*, the official journal of the Division of Planetary Sciences of the American Astronomical Society.

"We calculated the equilibrium compositions for 20 trace metals in Venus' lower atmosphere, look-

See **Venus**, Page 6



DAVID KUEPER

Bruce Fegley Jr., Ph.D., professor of earth and planetary sciences in Arts & Sciences, and Laura Schaefer, research assistant in the Planetary Chemistry Laboratory, have determined that the feature on Venus that looks like snow is composed of both lead and bismuth sulfides, settling a longtime controversy in the planetary community.



Chatting with the chancellor Chancellor Mark S. Wrighton addresses the audience at a "Chat With the Chancellor" Feb. 17 in the Women's Building Formal Lounge. Wrighton spoke on several issues of importance to all members of the University community, and he also took questions from the audience. Another "chat" will be from 12:10-12:50 p.m. March 19 in the West Campus Multipurpose Room. The chats are offered by the Office of Human Resources as part of the Brown Bag Seminar series.

Relay for Life to benefit American Cancer Society

By NEIL SCHOENHERR

The second annual Relay For Life at the University will be held from 6 p.m. March 20 to 6 a.m. March 21 at Francis Field.

Relay For Life is one of the premier fund-raising events for the American Cancer Society.

Teams of 8-15 people raise money beforehand, and then through the course of the night they have at least one team member walking, jogging or running around the track. In addition, teams decorate campsites, participate in games and activities and enjoy entertainment from student

performance groups and outside artists.

The first Relay For Life at the University raised more than \$129,000. This year, in conjunction with the Sesquicentennial celebration, organizers hope to have 150 teams raise more than \$150,000 while honoring 150 cancer survivors.

"The relay brings together members from all branches of the University community to support individuals battling cancer, celebrate with survivors and remember those who have lost the battle," said sophomore Kristin Bibee, who is in charge of team recruitment. "The funds raised go directly to the American Cancer Society, an organization committed to eliminating cancer through research, advocacy, services and education."

The team registration deadline is 6 p.m. March 20. Those not on a team can attend for \$10, paid at the gate.

For more information, go online to acevents.org/relay/mo/washu. To register and to ask specific questions, e-mail relay@restech.wustl.edu.

Admissions seeks airport volunteers

By ANDY CLENDENNEN

The Office of Undergraduate Admissions is seeking staff volunteers to greet visiting high-school seniors at Lambert-St. Louis International Airport on March 25 and April 15.

The two days mark the beginning of the University's annual scholarship competition weekend and the multicultural "Celebrations" weekend for students admitted to next fall's freshman class. Last year, approximately 60 volunteers participated in the greeting.

The April weekend is sponsored by several student groups — the Association of Black

Students, the Asian-American Association, Ashoka (the Indian student association), the Asian Multicultural Council, the Association of Latin American Students, the Hawaii Club, the Native American Student Association and the Muslim Student Association — along with the admissions office.

Volunteers are asked to work a two- to three-hour morning, afternoon or evening shift on either or both days. A luncheon and training session for volunteers will be held in advance.

Those interested are asked to call AnneMarie Chandler at 935-8226 for more information.

Psychological Service Center now forming support groups

By GERRY EVERDING

People seeking emotional support and guidance in dealing with social anxieties, bulimia or the challenges of being a man in today's world are invited to enroll in one of three weekly discussion groups now being formed by the University's Psychological Service Center (PSC).

Designed to foster understanding and improve coping skills through the sharing of common experiences, the support groups meet one night a week for 8-12 weeks. Specific start dates will be announced as the groups are formed. All sessions will be held at the PSC's West Campus offices, 7 N. Jackson Ave.

The PSC is an outpatient mental health clinic operated by the Department of Psychology in Arts & Sciences. Advanced clinical psychology doctoral students lead the support groups, with supervision from faculty and licensed clinical psychologists.

The three groups are listed below.

• **"A Gathering of Men"** will offer 5-8 men an opportunity to explore the stresses and challenges that they face in today's world — issues such as self-acceptance, aging, emotionality and the loneliness of male responsibility; the burdens of being a father and family breadwinner; the roller-coaster rat race

of work; and relationships with women, male friends and family members.

The fee is \$100. Meetings will be held from 7-8:30 p.m. on eight Mondays beginning in March.

• **"Getting Back in Control: A Skills Training Group for Women With Bulimia"** is an eight-week, solution-focused group offering women with bulimia an opportunity to learn new skills to help them resume healthy eating and weight-management behaviors. Applicants will be screened to determine if the group will be beneficial to their needs.

The fee is \$100. The group will meet for 90 minutes on Mondays from May 24-July 12.

• **The Social Anxiety Therapy Group** offers emotional support and training for people struggling to overcome serious fears, concerns and anxieties about situations such as public speaking, meeting new people, asking questions at work or school, going to parties or meeting new colleagues. The group focuses on cognitive-behavioral techniques that have proven to be effective in overcoming social anxiety disorders.

The group will meet for 2.5 hours on Tuesday evenings beginning in early March. The fee is \$240 for 12 sessions.

For registration or other information, call 935-6555.

Sam Fox Arts Center receives \$1 million challenge from The Kresge Foundation

By LIAM OTTEN

The Kresge Foundation has awarded a \$1 million challenge grant to the Sam Fox Arts Center.

The grant will support construction of two new buildings — the 65,000-square-foot Museum Building and the 38,000-square-foot Earl E. and Myrtle E. Walker Hall — as well as renovations to Bixby and Givens halls.

To receive the grant, the University must raise an additional \$4.4 million in outright gifts and pledges. Another goal of the grant is to attract support from a broad base of friends and donors.

"Superb visual arts education is one of the hallmarks of Washington University, but new facilities for our programs are urgently needed," Chancellor Mark S. Wrighton said. "On April 14, 2004, we will break ground for the Sam Fox Arts Center. Fumihiko Maki, the renowned architect for the project, and the famed artist Frank Stella will be our honored guests, and we are planning a celebration to be remembered."

"I ask all our friends to help us meet the Kresge challenge by April 14, so that we can announce our success at the groundbreaking ceremony."

In October, the Sam Fox Arts Center successfully met a \$1 million challenge grant from the J.E. and L.E. Mabey Foundation of Tulsa, Okla. Donations totaling \$5.8 million from 30 individuals, two foundations and two companies to support construction of the Museum Building were received by the Oct. 9, 2003, deadline and enabled the University to earn the grant.

The Kresge Foundation is an independent, private foundation based in Troy, Mich. It was created in 1924 by the personal gifts of Sebastian S. Kresge "to promote the well-being of mankind" and is not affiliated with any corporation or organization.

Today, the foundation's challenge grants reflect virtually the entire breadth of the nonprofit sector, including higher education, health and long-term care, arts and humanities, human services, public affairs and science and the environment.

Since its establishment, the foundation has awarded more than 8,000 grants, both nationally and internationally, totaling close to \$2 billion.

For more information, contact Lynn Giardina, senior director of development, at 935-7217 or giardina@wustl.edu.

PICTURING OUR PAST



When the University Training School for Nurses opened in 1907-08, the admission requirements included "a good common school education, good moral character and a sound physique" No tuition was charged for the three-year program, and students received free board and lodging. During World War I, some nurses from the school joined the University's Base Hospital 21 unit in France. The school reorganized in 1924 (above) as the Washington University School of Nursing, with the addition of a program leading to a bachelor of science degree in nursing. From 1929-1936, a program in public-health nursing was offered. The school closed in 1969.



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

Record

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Washington University in St. Louis

School of Medicine Update

Kidney disease bone damage may be blocked

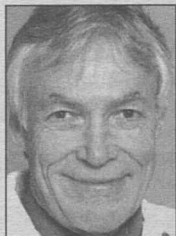
By MICHAEL C. PURDY

Scientists working with a mouse model of chronic kidney disease have found a treatment that appears to block the devastating effects kidney damage can have on bones.

"We still have some mechanical and structural testing to do to prove that the skeletons of these mice are normal, but if this works out and we're able to apply it in humans, we could be on our way to producing a major improvement in the well-being of patients with chronic kidney disease," said Keith A. Hruska, M.D., the Ira M. Lang Professor of Nephrology and professor of pediatrics and of cell biology and physiology.

Hruska was principal investigator for the study, which appears in the February issue of the *Journal of the American Society for Nephrology*.

Scientists gave injections of bone morphogenetic protein-7 (BMP-7), a protein involved in bone and kidney growth, to mice



"If this works out and we're able to apply it in humans, we could be on our way to producing a major improvement in the well-being of patients with chronic kidney disease."

KEITH A. HRUSKA

with damaged and removed kidneys. The injections prevented a condition known as adynamic bone disorder (ABD) that leads to weakening and distortion of bone.

"Adynamic bone disorder means that the cells that remodel bones are markedly diminished in number and activity," Hruska said. "In the past, the skeleton has been viewed as a mostly dead structure, but that's not the case at all. The adult skeleton is a very active tissue that is continually remodeling."

ABD is the second type of bone weakening related to kidney problems that scientists have

identified.

In the first, secondary hyperparathyroidism, patients have weakened bones like in ABD, but also have abnormal blood levels of the hormone produced by the parathyroid gland and several other important chemicals.

Hruska suspects secondary hyperparathyroidism may be a failed attempt to compensate for ABD, which first emerged about 15 years ago when scientists began using drugs to suppress parathyroid hormone levels in kidney patients.

Secondary hyperparathyroidism and ABD occur both in

patients who lose their kidneys to disease and in those who suffer a sufficiently damaging kidney injury. Studies of both conditions in human patients and animal models have recently uncovered a complex network of links between the skeleton and the kidney.

"We're learning that hormones made in the kidney regulate the skeleton, and hormones made in the skeleton regulate the kidney," Hruska said.

Assuming that kidney damage produces ABD first, Hruska reasoned that the damage either suppresses a factor that stimulates production of renewed bone or increases production of a factor that inhibits bone renewal. The uniqueness of BMP-7, a protein whose gene scientists have identified in both mice and humans, moved it to the top of his list of suspects.

"Among the factors involved in the development of the skeleton and the kidney, BMP-7 stands out because it continues to be produced even after development is complete," Hruska said.

For the experiment, Hruska and his colleagues damaged one kidney in mice and removed the other. They divided the mice into

several groups. In three of the groups, they prevented secondary hyperparathyroidism with dietary changes and a nutritional supplement.

Researchers evaluated bone health through microscopic examination of bone cell numbers, structures and types. They found that mice given the special diet and supplement developed symptoms similar to adynamic bone disorder.

But mice treated with the special diet, the supplement and injections of BMP-7 had normal bone cell counts and structures.

Hruska plans further tests of the experimental mice skeletons. He also hopes to look into BMP-7's effects on an even more harmful side effect of kidney injury: heart disease.

"Kidney damage decreases mineral storage in the bones, and minerals not stored in the bones are stored elsewhere," he said. "This extraskeletal storage of minerals can take the form of vascular calcification, and that's very bad. That can be a huge contributor to heart attack and heart failure, and those are what kill patients suffering from kidney failure."

Research technique may help understand tumor spread

By GILA Z. RECKESS

School of Medicine researchers have developed a new probe that allows them to watch protein activity in living cells. The technique also revealed surprising new details about the activity of a protein tentatively linked to the spread of cancerous cells.

The protein in this study, neuronal Wiskott-Aldrich syndrome protein (N-WASP), is naturally found in every cell in the body and is known to be involved in a wide range of cellular processes.

One of its key functions is believed to be guiding cellular growth and movement within the body, including when tumor cells metastasize, or spread, from one organ to another.

"To our knowledge, this is the first probe of its kind that allows us to actually see in a living system where, when and how proteins are activated," said first author Michael E. Ward, a graduate student in anatomy and neurobiology. "This is significant progress in moving from examining the biochemistry of ground up cells to being able to study it in an intact cell."

The study, led by Yi Rao, Ph.D., associate professor of anatomy and neurobiology, was featured on a recent cover of the *Proceedings of the National Academy of Sciences*. To design this

new probe, the team took advantage of the fact that N-WASP folds in half when it is inactivated. The researchers latched two fluorescent proteins onto the opposing ends of N-WASP — one yellow and one cyan.

Under certain circumstances, light energy from the cyan protein can be transferred to the yellow protein since cyan is a higher energy light than yellow and energy naturally jumps from high- to low-energy states.

The team hypothesized that, as N-WASP becomes activated and folds, the two ends would be brought closer together, resulting in an increase in the brightness of the yellow protein and a decrease in the brightness of the cyan protein.

As the researchers had hoped, the ratio of cyan to yellow light did accurately reflect N-WASP activity.

Normally, N-WASP is only marginally activated by one of two proteins, PIP2 and CDC42.

However, it becomes highly activated when simultaneously stimulated by the two proteins. In accordance with this synergistic effect, activation with only one of these proteins resulted in only a modest decrease in cyan light and increase in yellow light, while simultaneous activation with both resulted in a much more dramatic effect.

"This supports the idea that our

probe is sensitive to normal cellular signaling processes," Ward said.

Using their new technique, the team recorded preliminary observations of N-WASP activation throughout living cells placed in a petri dish.

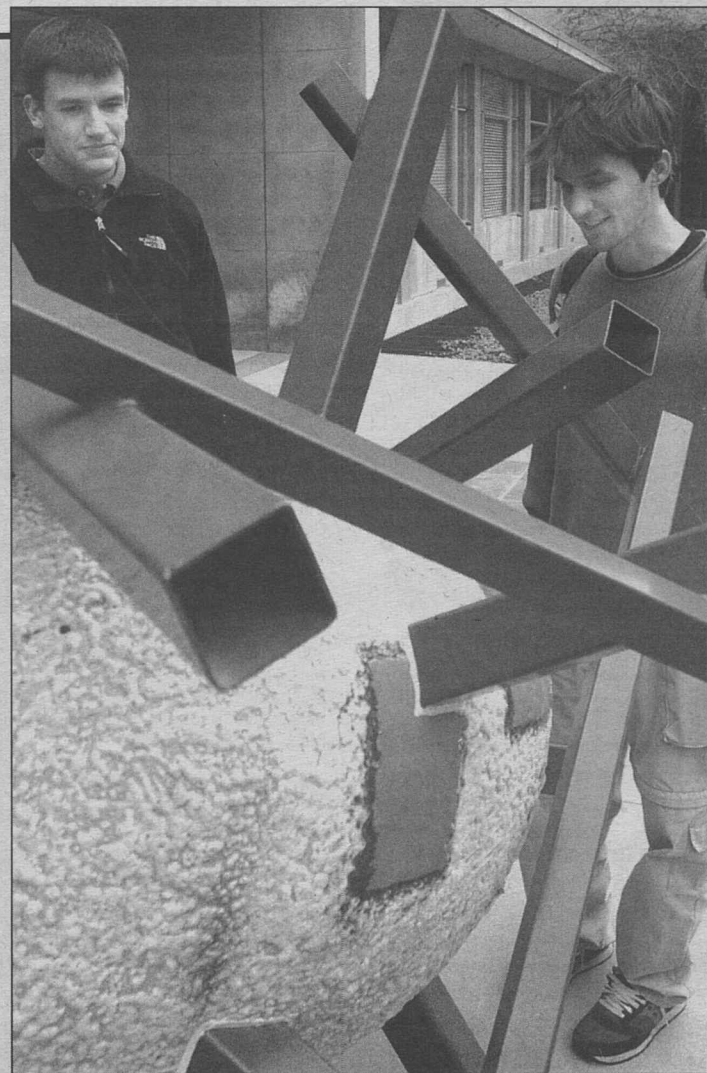
As expected, N-WASP activity was high in filopodia, thin filaments that protrude from cells to help navigate through the body.

However, several of the team's other observations surprised the researchers.

First, N-WASP and its stimulator proteins CDC42 and PIP2 all were active in "ruffles," animated ridges on the cell membrane that also help cells move forward. According to Ward, research on N-WASP has never highlighted its potential role in ruffling.

Second, some of the highest levels of N-WASP activity were in the nucleus, despite the general assumption that the protein's main role is in cell movement, which occurs in the periphery of the cell.

"Because we were able to visualize where N-WASP is activated, we were able to show it's activated in certain unexpected cellular compartments," Ward said. "Now that we've demonstrated this technique is effective, we hope to further examine this protein's activity and also to see whether similar probes can help us visualize other folding proteins."



State of the art First-year medical student Nick Rhodes (left) and graduate student Brandon Pierce admire *Techno-Primitive* by Ralph Paquin, a sculpture created of extruded steel, enamel and ceramics. The sculpture, on display in front of Olin Residence Hall on Scott Avenue, is one of 11 pieces featured on the Medical Campus as part of *Southern Bent: Sculpture With a Homegrown Twist*, which will run through March.

Safety and effectiveness of blood thinners studied

By GILA Z. RECKESS

All blood thinners aren't equal. And neither is their effect on patients with atrial fibrillation, the most common type of abnormal heart rhythm.

To determine how clinical and genetic factors predict a patient's response to therapy, a multidisciplinary team led by School of Medicine researchers has received a four-year, \$2.7 million grant from the National Heart, Lung, and Blood Institute.

Two main concerns for patients with atrial fibrillation are stroke and bleeding. People with this type of abnormal heart rhythm are five times more likely to develop a stroke than normal, according to Brian F. Gage, M.D.

But the use of potent blood thinners to prevent complications such as strokes could be dangerous for patients at risk for excessive bleeding.

"Right now, everyone with this condition is treated generically, regardless of genetic or clinical factors that might increase the risk for stroke or bleeding," said Gage, associate professor of medicine and principal investigator for this study. "We'd like to be able to predict the right dose of the right drug for the right patient. To do that, we need to determine in advance who is likely to develop a stroke, heart attack or hemorrhage."

In a pilot study with 400 patients, which recently appeared in the journal *Thrombosis and Haemostasis*, Gage's team found variations in response to treatment were attributable to genetic factors about 10 percent of the time and clinical and demographic factors about 30 percent of the time.

"These preliminary results tell us there are a lot of different factors influencing the risk for stroke

and bleeding," Gage said. "We need a comprehensive, interdisciplinary approach to study this issue."

To that end, Gage is collaborating with a multidisciplinary team at the University, including Charles S. Eby, M.D., associate professor of medicine and of pathology and immunology; Howard L. McLeod, Pharm.D., associate professor of genetics, of medicine and of molecular biology and pharmacology; Thomas G. Cole, Ph.D., research professor of medicine; Robert C. Culverhouse, Ph.D., instructor in medicine; Deepak Voora, M.D., internal medicine resident; and Paul E. Milligan, Pharm.D., clinical pharmacist.

The team is also working with investigators at Duke University, Boston University, Brigham and Women's Hospital, Stanford University and the St. Louis Veterans Affairs Medical Center.

Celebrate Fitness to benefit breast cancer

By KIMBERLY LEYDIG

Need some motivation to break out of a winter workout funk?

How about roundtrip airfare for two, a \$500 gift certificate to Lord & Taylor and two nights stay at a luxury Manhattan hotel?

Or the best reason of all: to help raise money to benefit breast cancer programs and research at the Siteman Cancer Center.

The annual Celebrate Fitness workshop will take place from 8-10 a.m. March 6 at the Athletic Complex on the Hilltop Campus. Registration will begin at 7:30 a.m.

You can choose from three

workouts: There's a 90-minute, high-energy class featuring aerobics, NIA (expressive movement) and kickboxing followed by a yoga cool-down.

Too fast-paced? Instead, you can choose 90 minutes of beginning or intermediate yoga to help soothe tensions from a stressful workweek.

Last year, the effort raised \$35,000. The goal this year: \$50,000.

Participants can pre-register with a \$20 donation by going online to celebrate-fitness.org or by calling 747-7222; or they can pay a \$25 fee at the door.

University Events

University composers to be featured in Feb. 29 concert

BY LIAM OTTEN

Four distinguished St. Louis composers, all affiliated with the Department of Music in Arts & Sciences, will be honored with a concert of their works at 8 p.m. Feb. 29 in Edison Theatre.

The Washington University Composers' Chamber Music Concert will feature music of Harold Blumenfeld, John MacIvor Perkins and Robert Wykes — all professors emeriti — and Roland Jordan, associate professor of music and comparative literature in Arts & Sciences.

Performers will include six faculty members and applied music instructors, seven members of the Saint Louis Symphony Orchestra and two guest musicians.

The program will feature the

world premieres of Jordan's *Sonata for Two Pianos* and *Summer-music* for clarinet, viola, harp, xylophone, glockenspiel and marimba.

Blumenfeld will be represented by a pair of song cycles, *Songs of Cassis* (1995) and *Sterne und Stein* (2003). Rounding out the program will be Perkins' *Reflections on a Bach Fugue* for flute and piano (1994) and Wykes' *Piano Quintet* for piano and string quartet (1961).

The concert will offer a foretaste of the 2004 Chancellor's Concert, scheduled for April 25, which will feature world premiere works by Blumenfeld, Perkins and Wykes performed by the Washington University Symphony Orchestra and the Chamber Choir of Washington University.

Blumenfeld 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 with the two-act opera, *Seasons in Hell* (1996).

Other works include the comic operas *Fourscore: An Opera of Opposites* and a one-act bagatelle, *Breakfast Waltzes*, both with Charles Kondek as librettist. Last year, the New York City Opera debuted his *Borgia Infami* as part of its VOX 2003 showcase.

Jordan, who joined the faculty in 1970, frequently composes for smaller ensembles, though his evening-long *Maps* — for voice and a large instrumental ensemble — was written and presented in 1979 in celebration of the

University's 125th anniversary, with the sponsorship of the New Music Circle.

In the late 1990s, both Synchronia and the Saint Louis Symphony Chamber series presented his *Years of the Plague*, a work in 13 movements marking the first 13 years of the AIDS crisis.

Perkins 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. His numerous honors include the Woodrow Wilson National Fellowship and the American Academy and National Institute of Arts and Letters Award.

Wykes 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.

His other credits include musical scores for the Academy Award-winning documentary *Robert Kennedy Remembered* (1968) and the Kennedy Library's *John F. Kennedy: 1916-1963*.

Tickets — \$15; \$10 for seniors, students and University faculty and staff; \$5 for University students — are available at the Edison Theatre Box Office (935-6543) and through all MetroTix outlets.

For more information, call 935-4841.

Search and Destroy • Baseball • Teaching Tense

"University Events" lists a portion of the activities taking place at Washington University Feb. 27-March 11. Visit the Web for expanded calendars for the Hilltop Campus (calendar.wustl.edu) and the School of Medicine (medschool.wustl.edu/calendars.html).

Exhibits

American Art of the 1980s: Selections From the Broad Collections. Through April 18. Gallery of Art. 935-5423.

American Art on Paper From 1960s to the Present. Through April 18. Gallery of Art. 935-5423.

Painting America in the 19th Century. Through April 18. Gallery of Art. 935-5423.

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

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.

Films

Friday, March 5

7 p.m. **SoHo in Hollywood/Hollywood in SoHo: 80s Artists on Film Series.** *Search and Destroy.* David Salle, dir. Presented by the Gallery of Art. 935-4523.



Lectures

Friday, Feb. 27

9:15 a.m. **Pediatric Grand Rounds.** "Hyperactivation of Ras-P13K-Rac Signaling in NF1 Haploinsufficient Mast Cells — Potential Implications in Neurofibroma Formation." David Clapp, prof. of pediatrics and of microbiology & immunology and director of the M.D./Ph.D. program, Indiana U. Clopton Aud., 4950 Children's Place. 454-6006.

Noon. **Cell Biology & Physiology Seminar.** "Vascular Extracellular Matrix and Blood Vessel Development." Robert P. Mecham, prof. of cell biology & physiology and of medicine. McDonnell Medical Sciences Bldg., Rm. 426. 362-3964.

12:30-6:50 p.m. **Siteman Cancer Center CME Course.** "Annual Missouri Lung Cancer Review." Ramaswamy Govindan, asst. prof. of medicine, course chair. Cost: \$95. The Chase Park Plaza, St. Louis. To register: 362-6891.

12:30-4:30 p.m. **St. Louis STD/HIV Prevention Training Center CME Course.** "STD Laboratory Methods." Cost: \$75. U. of Mo.-St. Louis, S. Computer Bldg., Rm. 200A. To register: 747-1522.

4 p.m. **Music Lecture.** "How Britain Found the Blues: The Transference, Reception and Adoption of African-American Folk Music in the United Kingdom." Roberta Freund Schwartz, asst. prof. of historical musicology, U. of Kan. Music Classroom Bldg., Rm. 102. 935-4841.

Saturday, Feb. 28

11 a.m.-12:30 p.m. **Master of Liberal Arts Saturday Seminar Series.** "How Does Memory Create Culture?" Pascal Boyer, Luce Professor of Individual and Collective Memory in Arts & Sciences. McDonnell Hall, Goldfarb Aud. 935-6778.

Sunday, Feb. 29

7 p.m. **Architecture Lecture.** "Works and

Humanitarian Activities." Shigeru Ban, architect, Japan. (6:30 p.m., reception, Givens Hall.) Co-sponsored by the Visiting East Asian Professionals program. Steinberg Hall Aud. 935-6200.

Monday, March 1

Noon. **Center for Aging Monday Lecture Series on Clinical Issues of Aging.** "Sarcopenia, Aging and Resistance Exercise." John Holloszy, prof. of internal medicine. 4488 Forest Park Blvd., Lower-Lvl. Conference Room. 286-2881.

Noon. **Molecular Biology & Pharmacology Seminar.** "Nickel-dependent Gene Regulation in Bacteria." Peter T. Chivers, asst. prof. of biochemistry & molecular biophysics. South Bldg., Rm. 3907, Philip Needleman Library. 362-0183.

Noon. **Work, Families, and Public Policy Brown Bag Seminar Series.** "Traditional Institutions Meet the Modern World: Caste, Gender and Schooling Choice in a Globalizing Economy." Mark Rosenzweig, Mohamed Kamal Professor of Public Policy, Harvard U. Eliot Hall, Rm. 300. 935-4918.

2:30 p.m. **Chemical Engineering Seminar.** "Molecular Modeling for Nanotechnology Applications." Rajesh Khare, manager, Accelrys Inc., San Diego. Cupples II Hall, Rm. 100. 935-6070.

4 p.m. **Immunology Research Seminar Series.** "Fashioning and Re-fashioning T Cell Fates." Steven L. Reiner, Immunology Program Distinguished Visiting Professor. Eric P. Newman Education Center. 362-2763.

6 p.m. **Architecture Monday Night Lecture Series.** "The Aegean Crucible." Constantine Michaelides, dean emeritus of architecture. (5:30 p.m. reception, Givens Hall.) Steinberg Hall Aud. 935-6200.

Tuesday, March 2

Noon. **Biology Seminar.** "Molecular Population Genomics in Plant Species." Kenneth Olsen, dept. of genetics, N.C. State U. Rebstock Hall, Rm. 322. 935-7196.

Noon. **Genetics Seminar Series.** "The Roles

of Hsc70 and Rme-8 in Endocytosis." Henry Chang, dept. of cell biology, Yale U. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

3 p.m. **Assembly Series.** Environmental Initiative Colloquium Panel Discussion. "Research in Aerosols and Air Quality." Lab Sciences Bldg., Rm. 300. 935-5285.

8 p.m. **Romance Languages & Literatures Lecture.** "Stranded: Tango, Women and the White Slave Trade." Alicia Borinsky, Felice Massie Distinguished Visiting Professor of Romance Languages & Literatures. Women's Bldg., Formal Lounge. 935-5175.

Wednesday, March 3

10 a.m. **Biology Seminar.** "Crop Domestication and Evolutionary Inferences." Kenneth Olsen, dept. of genetics, N.C. State U. Rebstock Hall, Rm. 309. 935-7196.

11 a.m. **Missouri Bar Association Forum on Public Service.** "Lawyers in the Missouri Legislature and Judiciary." Bill Corrigan, pres., Missouri Bar Association, moderator. Anheuser-Busch Hall, Rm. 309. 935-8101.

11 a.m. **Assembly Series.** "Liberal Lies About the American Right." Ann Coulter, political analyst, attorney and author. Graham Chapel. 935-5285.

Thursday, March 4

9 a.m. **School of Law "Access to Justice" Speaker Series.** "Celebrating Early Women Law Professors." Herma Hill Kay, Barbara Nachtrieb Armstrong Professor of Law and Dean Emerita of Law, U. of Calif., Berkeley. Anheuser-Busch Hall. 935-4958.

Noon. **Genetics Seminar Series.** Jaime Rivera, dept. of genetics, U. of N.C. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

1:10 p.m. **George Warren Brown School of Social Work Spring Lecture Series.** "Ethical Issues in Social Work Practice and Education: Essential Knowledge for the Profession." Frederic Reamer, prof. of social work, Rhode Island College. Brown Hall Lounge. 935-6661.

8 p.m. **Writing Program Reading Series Lecture.** Peter Ho Davies, fiction writer and dir. of the master of fine arts program, U. of Mich. Duncker Hall, Rm. 201, Hurst Lounge. 935-7130.

Friday, March 5

Noon. **Cell Biology & Physiology Seminar.** "Regulation and Functions of Tenascin-C in Pulmonary Vascular Development and Disease." Peter Lloyd Jones, asst. prof. of pediatrics and of cell & developmental biology, U. of Colo. McDonnell Medical Sciences Bldg., Rm. 426. 362-2254.

12:30-4:30 p.m. **St. Louis STD/HIV Prevention Training Center CME Course.** "STD Clinician." (Continues March 12, 19 & 26.) Cost: \$110. U. of Mo.-St. Louis, S. Computer Bldg., Rm. 200A. To register: 747-1522.

1:30 p.m. **Lifelong Learning Institute Special Lecture.** "The Louisiana Purchase: Celebrations and Legacies." Elizabeth Gentry Sayad, author. West Campus Conference Center, Rm. A/B. 935-4237.

Monday, March 8

Noon. **Center for Aging Monday Lecture Series on Clinical Issues of Aging.** "Falls and Hip Fractures." Ellen Binder, asst. prof. of medicine. 4488 Forest Park Blvd., Lower-Lvl. Conference Rm. 286-2881.

4 p.m. **Immunology Research Seminar Series.** "Pathogen Regulation of Antigen Presentation to CD8 T Cells." Ted H.

Environmental Initiative Colloquia to continue March 2

BY BARBARA REA

The next Environmental Initiative Colloquium will focus on aerosols and air quality.

The colloquium on "Research on Aerosols and Air Quality: Impact on Nanotechnology to Global Climate" will be from 2-5 p.m. March 2 in the Arts & Sciences Laboratory Science Building, Room 300.

The three distinguished scientists giving presentations in their areas of specialization are listed below.

• Sheldon K. Friedlander, the Parsons Professor of Chemical Engineering at the University of California, Los Angeles, will lecture on "Aerosol Science Engineering: The Enabling Discipline."

• Jonathan Samet, professor and chair of the epidemiology department at Johns Hopkins University, will talk on "Aerosols and Health Effects."

• John S. Seinfeld, the Louis E. Nohl Professor and professor of chemical engineering at California Institute of Technology, will discuss "Aerosols and Global Climate."

For more information, call 935-5285 or go online to 150.wustl.edu/environment.

Hansen, prof. of genetics. Eric P. Newman Education Center. 362-2763.

5 p.m. **Gallery of Art Lecture.** "Thirty Years of Collecting." Eli Broad, philanthropist. Gallery of Art. 935-4523.

5:30 p.m. **Mallinckrodt Institute of Radiology Lecture.** Annual Daniel R. Biello Memorial Lecture. "Lymphoma: A Model for PET's Role in Cancer Management." Landis K. Griffith, dir. of nuclear medicine, Baylor U. Scapellato Aud., 510 S. Kingshighway Blvd. 362-2866.

Tuesday, March 9

Noon. **Biology Seminar.** "Arabidopsis as a Model System for Plant Secondary Metabolism: Biosynthesis, Regulation and Function of Terpenes." Dorothea Tholl, Max Planck Inst. for Chemical Ecology. Rebstock Hall, Rm. 322. 935-7509.

Noon. **Genetics Seminar.** "Analysis of Cell-invasive Behavior in Vivo: Anchor Cell Invasion in *C. elegans*." David Sherwood, div. of biology, Calif. Inst. of Technology. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

Noon. **Molecular Microbiology and Microbial Pathogenesis Seminar Series.** "Genomic Approaches to Some Human Infectious Diseases." Adrian V.S. Hill, prof. of the Wellcome Trust Centre for Human Genetics, U. of Oxford. Cori Aud., 4565 McKinley Ave. 362-8873.

Noon. **Program in Physical Therapy**

Coulter to discuss 'Liberal Lies About the American Right'

BY BARBARA REA

Conservative political analyst, lawyer and best-selling author Ann Coulter will deliver a talk titled "Liberal Lies About the American Right" at 11 a.m. March 3 in Graham Chapel.

Coulter is known for her sharp criticism of the American liberal perspective. Through her books and television appearances, she has become one of the most popular and best-known defenders of the American conservative philosophy.

All three of her books have enjoyed long stays on *The New York Times* best-seller list.

The first, *High Crimes and Misdemeanors: The Case Against Bill Clinton* (1998), was widely praised by prominent conservatives including George Will and Robert Bork, and widely used by editorial writers during the Clinton impeachment trial.

In *Slander: Liberal Lies About the American Right* (2002), Coulter provides examples of media abuse, liberal manipulation and Democratic conspiracies against Republicans.

Treason: Liberal Treachery From the Cold War to the War on Terrorism (2003) contends that liberals have stood with the enemies of American interests in every

major crisis during the past 60 years of its history.

A major broadcast media figure, Coulter has been featured on a variety of programs, including ABC's *This Week*, NBC's *Today* and CNN's *Larry King Live*, *Hannity and Colmes* and *The O'Reilly Factor*.

In addition, she writes a column for Universal Press Syndicate and is the legal correspondent for *Human Events* magazine.

A graduate of Cornell University and the University of Michigan Law School, Coulter has worked as an attorney for the Center for Individual Rights, a conservative public-interest law firm dedicated to the defense of individual rights with particular emphasis on freedom of speech, civil rights and the free exercise of religion.

In addition, she has served as legal counsel for the Senate Judiciary Committee, where she worked with then-Sen. Spencer Abraham. She has also practiced corporate law and has clerked for Judge Pasco Bowman II of the 8th U.S. Circuit Court of Appeals.

Coulter's lecture is free and open to the public, but with limited seating. Call 935-5285 for public-seating information.

For more information, call 935-4620 or go online to wupa.wustl.edu/assembly.



Coulter

Renowned art collector Broad to speak March 8

BY LIAM OTTEN

Philanthropist Eli Broad, named one of the top art collectors in the world by *ArtNews* and *Art and Antiques* magazines, will speak on "Thirty Years of Collecting" at 5 p.m. March 8 at the Gallery of Art.

The talk, which is free and open to the public, is being held in conjunction with *American Art of the 1980s: Selections From the Broad Collections*, on view at the gallery through April 18. The exhibition features 14 large-scale paintings and sculptures by 11 celebrated and sometimes controversial artists: Jean-Michel Basquiat, Ross Bleckner, Eric Fischl, Jack Goldstein, Keith Haring, Jeff Koons, Sherrie Levine, Robert Longo, David Salle, Julian Schnabel and Mark Tansey.

Since the early 1960s, Broad and his wife, Edythe, have built a personal collection of more than 400 modern and contemporary works, while The Broad Art Foundation, which they founded in Santa Monica, Calif., in 1984, has amassed more than 750 works by more than 100 artists. The foundation operates an active "lending library" of its collection and has loaned artwork to more than 400 museums and university galleries worldwide.

Through their dedication to venture philanthropy, the Broads engage wide-ranging areas of concern in the arts, education and science nationwide.

In 1999, The Broad Foundation was established with a mission to dramatically improve urban K-12 public education through better governance, management and labor relations. In its first five years, this foundation has committed more than \$100 million to support new ideas and innovative leadership in the nation's largest urban school systems.

The Broads have strongly supported numerous universities and colleges, particularly in regard to teaching and research in art, biotechnology and busi-

ness. The Broad Art Center at the University of California, Los Angeles, designed by architect Richard Meier, is under construction and will house painting, sculpture and ceramics studios for art students, as well as a gallery, library and café.

In June 2003, in partnership with Massachusetts Institute of Technology, Harvard University and Whitehead Institute, the Broads announced a founding gift of \$100 million to create The Eli and Edythe Broad Institute for biomedical research and help realize the promise of the human genome.

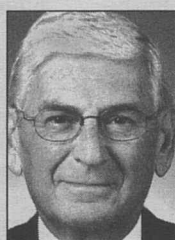
The Broads have also provided funding for new buildings at the California Institute of the Arts in Valencia, California Institute of Technology, Pitzer College and Michigan State University, from which Eli Broad graduated cum laude in 1954 and where The Eli Broad College of Business and The Eli Broad Graduate School of Management were endowed in 1991.

Eli Broad has been a patron and board member at more than 25 major museums and art institutions, including the Museum of Modern Art, the Whitney Museum of American Art and the Solomon R. Guggenheim Museum, all in New York; The Los Angeles County Museum of Art (LACMA); and the Archives of American Art of The Smithsonian Institution in Washington, D.C.

Eli Broad was founding chairman of the board of trustees of The Museum of Contemporary Art, Los Angeles, and is a trustee and member of the executive committee of LACMA. Most recently, the Broads announced a major gift to LACMA to create a new building for contemporary art.

Regular Gallery of Art hours are 10 a.m.-4:30 p.m. Tuesday through Thursday; 10 a.m.-8 p.m. Fridays; and noon-4:30 p.m. weekends. The gallery is closed on Mondays.

For more information, call 935-4523.



Broad



Dancing the night away "Morale chair" April Friedman (center) leads a group of students in a mass dance during the Dance Marathon Feb. 21 in the Athletic Complex. More than 250 students attended the 12-hour event, helping to raise money for the Children's Miracle Network. This year's expected gross for the St. Louis area is more than \$250,000, which will help serve more than 450,000 children at Cardinal Glennon and St. Louis Children's hospitals.

French ambassador to address 'a world transformed'

BY ANDY CLENDENNEN

Jean-David Levitte, French ambassador to the United States, will lecture on "The United States and France in a World Transformed," at noon March 13 in the Uncas A. Whitaker Hall Auditorium.

Levitte will be in St. Louis for the festivities surrounding the bicentennial celebration of the Louisiana Purchase. In addition to speaking at the University, Levitte will address The Round Table of St. Louis and visit the Alliance Francaise School. He will also attend the Bicentennial Ball and the Three Flags Commemoration Ceremony at the Arch, marking the bicentennial of the transfer of the upper Louisiana Territory.

Levitte has had a distinguished and outstanding career in the

French foreign service and has served on the staff of two French presidents.

Born in 1946 in southern France, Levitte earned a law degree and is a graduate of the renowned Institute for Political Science in Paris and of the National School of Oriental Languages, where he studied Chinese and Indonesian.

A few months after his election in 1974, French President Valéry Giscard d'Estaing asked Levitte to work on his staff at the Elysee Palace, where he stayed from 1975-1981. Levitte was then assigned to

his first position in the United States as second counselor at the Permanent Mission of France to the United Nations in New York.

In 1988, Levitte was designated to his first position as ambassador and served as the French permanent representative to the U.N. office in Geneva, Switzerland, from 1988-1990.

After the presidential elections in 1995, President Jacques Chirac asked Levitte to be his senior diplomatic adviser. He served in that position from 1995-2000.

Chirac appointed Levitte as French permanent representative to the United Nations in 2000, which he held until becoming ambassador to the United States.

The lecture is free and open to the public. Coffee and light refreshments will be served at 11:30 a.m.



Levitte

Pioneering architect Ban to discuss humanitarian activities

BY LIAM OTTEN

Japanese architect Shigeru Ban, known for his pioneering use of low-cost materials such as paper and bamboo, will speak on "Works and Humanitarian Activities" for the School of Architecture and Visiting East Asian Professionals Program in Arts & Sciences at 7 p.m. Feb. 29.

The event is free and open to the public and will take place in the Gallery of Art's Steinberg Auditorium. A reception will be held at 6:30 p.m. in Givens Hall.

Ban's work is notable for linking natural and built environments and for its economic use of resources.

As a consultant for the U.N. High Commissioner for Refugees in the early and mid-1990s, Ban created emergency housing from paper tubes for victims of the

Rwandan civil war — designs that were redeployed for victims of the 1995 earthquake in Kobe, Japan. Light, environmentally friendly and easy to transport, store and recycle, these structures featured paper walls, foundations of sand-filled beer cases and ceilings and roofs of tenting fabric.

In the United States, Ban is perhaps best known for his *Curtain Wall House* in Tokyo, a highlight of the Museum of Modern Art's 1999 exhibition *The Un-Private House*. Other projects include a small museum in Dijon, France, constructed of paper and steel; four homes in Portugal, also employing paper; and a series of bamboo residences near the Great Wall in Beijing.

Born in Tokyo in 1957, Ban studied at the Southern California Institute of Architecture and

the Cooper Union School of Architecture, where he graduated in 1984. He opened his own Tokyo-based practice the following year.

Shigeru Ban, the first English-language monograph of his work, was published in 2000.

While at the University, Ban will begin a series of workshops with architecture students that, over the course of the spring semester, will develop a publicly scaled temporary construction outside Givens Hall. The project is following last semester's residency by master carpenter Tamotsu Edo of Awajishima, Japan, who worked with students to construct and install a traditional Japanese teahouse waiting bench in the Elizabeth Danforth Butterfly Garden.

For more information, call 935-6200.

Research Seminar. "The Healthy Mind-Body-Spirit Grant Through the Missouri Foundation for Health." Kathleen Killian, exec. dir. of health literacy, BJC Health-care, 4444 Forest Park Blvd., Lower Level, Rm. B108/B109. 286-1404.

Wednesday, March 10

4 p.m. Biochemistry & Molecular Biophysics Seminar. "Structural Dissection of *E. coli* RecQ DNA Helicase: Insights Into the Physical Basis of Cancer and Premature Aging in Three Human Diseases." James L. Keck, asst. prof. of biomolecular chemistry, U. of Wisc. McDonnell Medical Sciences Bldg., Erlanger Aud. 362-0261.

Thursday, March 11

10 a.m. Biology Seminar. "Terpene Secondary Metabolism in *Arabidopsis*: Research Plans and Future Directions." Dorothea Tholl, Max Planck Inst. for Chemical Ecology. Rebstock Hall, Rm. 309. 935-7509.

Noon. Genetics Seminar. Evgueny Kroll, Molecular Science Inst., Berkeley, Calif. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

Music

Sunday, Feb. 29

8 p.m. Concert. Chamber Music by Washington University Composers in Celebration of the Sesquicentennial. Cost: \$15, \$10 for seniors, students, WUSTL faculty & staff, \$5 for WUSTL students. Edison Theatre. 935-6543.

Sunday, March 7

4 p.m. Faculty Recital. Silvan Iticovici, violin. Ridgely Hall, Holmes Lounge. 935-4841.

Sports

Saturday, Feb. 28

Noon. Women's Tennis vs. DePauw U. Tao Tennis Center. 935-4705.

Noon. Baseball vs. Fontbonne U. Kelly Field. 935-4705.

Sunday, Feb. 29

11 a.m. Women's Tennis vs. U. of Chicago. Tao Tennis Center. 935-4705.

Noon. Baseball vs. Webster U. Kelly Field. 935-4705.

Tuesday, March 2

2 p.m. Baseball vs. Westminster College. 935-4705.

And more...

Friday, Feb. 27

10 a.m. Teaching Center Workshop on Teaching Tense. Kathleen Bardovi-Harlig, prof. of TESOL and applied linguistics, Indiana U. Co-sponsored by the dean of the faculty of Arts & Sciences. Olin Library, Level A, Arc Presentation Room. 935-5175.

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

Thursday, March 4

8 a.m. School of Law International Women's Day Celebration Breakfast. Anheuser-Busch Hall, Janite Lee Reading Room. Reservations: 725-0209.

Campus Watch

The following incidents were reported to University Police Feb. 18-24. 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.

Feb. 19

2:37 a.m. — A group of subjects was observed near the University House clock tower carrying toilet paper and food items. The group was extremely loud with people yelling back and forth to each other. Two other students in the area complained about the noise. An officer observed the subjects near Shepley Drive, where several

were involved in a food fight. They were identified as students pledging. They were released pending referral to the Judicial Administrator.

Feb. 23

11:30 a.m. — A person reported that an unknown person stole a license-plate sticker from her car while parked in Wohl Parking Garage.

12:53 p.m. — An sewing machine was stolen from Bixby Hall sometime between May 16, 2003, and Feb. 17, 2004.

Additionally, University Police responded to four reports of larceny and one report each of lost article, outdoor sound policy violation, harassment and fraud.

Sports



Senior guard Barry Bryant works the ball upcourt against Brandeis University Feb. 20 at the Field House. Bryant scored 11 of his 15 total points in the second half to help the Bears nail down a 75-65 victory. After a 69-55 home win over New York University Feb. 22, the Bears are 19-5 overall heading into the Feb. 28 regular-season finale at the University of Chicago.

Men's hoops wins 7th straight; now 19-5

The No. 25 men's basketball team posted two key University Athletic Association wins at home to improve to 19-5 overall. After opening up a 20-point lead in the first half, WUSTL posted a 75-65 win Feb. 20 against Brandeis University.

Junior Rob Keller made his first six shots and scored 15 points in the game's first seven minutes, leading Washington U. to a 28-12 advantage. Senior Barry Bryant scored 11 of his 15 points in the second half and sophomore point guard Scott Stone sealed the win with a 25-foot three-pointer with about 1:00 left.

The Bears then knocked off New York University, 69-55, Feb. 22. The win, WUSTL's seventh straight and 18th in the past 20 games, came on Senior Day and upped the Bears' conference record to 11-2.

Sophomore Mike Grunst scored seven points to spark a 15-4 run to give the Bears a 55-43 lead with less than nine minutes remaining in the game. Rob Keller led all scorers with 19 points on 5-of-9 shooting from three-point range. Bryant tallied 16 points, six assists and five rebounds in his final game at the Field House.

Sports shorts

The streak is over. The No. 5 **women's basketball** team had won the previous six UAA crowns outright, but a loss to New York University Feb. 22 ended any hopes of a six-peat, although the Bears could still earn a tie for the conference title.

The Bears and Violets combined for 189 points, but NYU emerged a 100-89 victor and gained the automatic bid to the NCAA Division III women's basketball tournament.

Sophomore Kelly Manning led the Bears with a career-high 24 points in the loss. Two days earlier, the Bears picked up a

On the Web

For complete sports schedules and results, go to bearsports.wustl.edu.

64-51 win over No. 22 Brandeis. Senior Lesley Hawley paced the Bears with 20 points.

The **men's and women's track and field** teams had another strong showing Feb. 20-21. The Bears sent a small group of men to the University of Iowa Open in Iowa City, Iowa. Sophomore David Skiba clocked an 8.37 seconds in the 60-meter hurdles, breaking the five-year old school record of 8.51.

The next day, the Bears headed to the University of Northern Iowa Dome Open in Cedar Falls. Though no team scores were kept, WUSTL still featured numerous individual efforts worth noting. Senior Kammie Holt set another season-best in the long jump with a leap of 5.59 meters, good for a provisional qualification for the NCAA Championships.

The **women's tennis** team opened the 2004 spring season with a 7-2 win at Luther College. After dropping two of three matches in doubles play, WUSTL reeled off wins at all six singles spots to take control of the match. Kacie Cook picked up a 6-3, 6-3 win at No. 1 singles over Luther's Miriam Skrade. Lauren Zwick put together a strong match at No. 3 singles, prevailing 6-1, 6-1 over Lindsay Hagen of Luther.

Laura Greenberg and Erin Fleming, who each posted singles wins, garnered the Bears' lone win in doubles play.

The No. 7 **men's tennis** team had four singles champions and two doubles champions as the Bears competed in the Principia College Invitational in Elsah, Ill. Freshman Marko Boskovski (No. 1), sophomore William McMahan (No. 2), sophomore Zack Fayne (No. 3) and junior David Weingeist (No. 6) each posted a 3-0 record to win their flights.

Diabetes

Next phase: pig-to-primate transplants
— from Page 1

from stem cells and other embryonic cell clusters known as organ primordia.

Unlike stem cells, primordia cannot develop into any cell type — they are locked into becoming a particular cell type or one of a particular set of cell types that make up an organ.

In multiple groups of diabetic rats that were unable to produce their own insulin, Hammerman and Sharon Rogers, research instructor in medicine, transplanted pig pancreas primordia into the omentum, a membrane that envelops the intestines and other digestive organs.

Within two weeks, the primordia engrafted and began producing pig insulin.

The pig insulin replaced the missing rat insulin, returning the rats' blood glucose to normal levels, an effect that continued for the rest of their lives. Failure to gain weight, another characteristic symptom of diabetes, was also reversed following the transplants.

In a final group of transplant recipients, Rogers, Hammerman, Feng Chen, Ph.D., assistant professor of medicine, and Mike Talcott, D.V.M., director of veterinary surgical services, showed that pig insulin-producing cells were present in the omentum and had caused a buildup of fat, a change previously linked to successful engraftment of pancreatic

tissue.

For years, Hammerman had theorized that implanting primordia obtained very soon after organ formation and coaxing the cells into growing into fully functioning organs inside a transplant recipient might reduce immune system rejection.

However, he admitted he is stunned by the new success.

"Conditions that are permissive for transplantation from one species to another frequently don't translate to transplants into another species," Hammerman said. "But this dramatic elimination of the need for immune suppression is quite unusual; there's not a lot of precedent in the literature for it."

"So it's possible that it may also apply in other cross-species transplants and maybe even in pig-to-human transplants."

Transplanting human insulin-producing pancreas cells known as the islets of Langerhans sometimes treats diabetes in humans.

According to Hammerman, using embryonic pig cells as the transplant source circumvents three major difficulties.

"First, there aren't nearly enough human pancreas organs to go around," Hammerman said. "Since pig insulin works fine in humans, if pigs could be used as donors the shortage would be alleviated."

Second, islets can only be extracted from the pancreas by mincing the organ and exposing it to enzymes that break down connective tissue.

"This damages islets," Hammerman said. "So not all of the transplanted islets engraft, and many that do engraft die after a

period of time."

Third, islets are composed of mature cells unable to respond to increased need for their services by dividing and producing more cells.

In contrast, embryonic pancreas cells divide readily in response to such needs, resulting in a potentially expandable source of insulin.

For reasons not yet understood, the transplanted pancreas cells did not develop an additional digestive function normally associated with the pancreas.

"That was another remarkably lucky break," Hammerman said, "because only the endocrine cells are required to treat diabetes. The digestive cells would have only caused problems."

If elimination or reduction of immune rejection transfers to pig-to-human transplants, the technique will defeat or greatly diminish a final formidable obstacle to treating diabetes with transplants.

"Immunosuppressing a patient introduces a whole new set of dangers and side effects," Hammerman said. "Patients with type 1 diabetes have to ask themselves, 'Would I rather take insulin, or would I rather take all these immunosuppressive drugs?' It's not the greatest choice in the world."

The next phase of research will involve pig-to-primate transplants. If those are successful, then pig-to-human transplant trials can be considered.

Hammerman is also studying the use of kidney primordia from embryonic pigs to grow new kidneys inside recipients as a treatment for end-stage kidney failure.

Venus

Need an actual sample of dirt for date analysis
— from Page 1

ing for something that condenses at this altitude of 2.6 kilometers," Schaefer said. Previous analyses, she added, simply "didn't consider any chemistry. When we looked at the chemistry, we found that the best candidates were actually lead and bismuth sulfides."

Discovery of the metallic snow dates back to 1995, when Raymond E. Arvidson, Ph.D., the McDonnell Distinguished University Professor and chair of earth and planetary sciences, and other researchers were analyzing the vast archives of data taken from NASA's Magellan mission to Venus in 1989.

Magellan's primary objective was to map the surface of Venus using a technique known as synthetic aperture radar (SAR). SAR images taken of Aphrodite Terra and other mountainous regions in Venus' highlands revealed a mysterious brightening effect.

Using computers to factor in physical parameters such as elemental abundances — what elements are present and in what amounts, altitudes, temperatures and pressures — researchers surmised that the brightening effect was due to a metal-containing "snow" only a few millimeters in thickness frosting the mountains' rugged surfaces.

But even as the hypothesis of metallic snow was circulating throughout the planetary community, its chemical composition remained largely an educated guess — one among many on the short-list of 98 possible metal-containing compounds that commonly exist around volcanic vents on Earth.

"An old idea we had was that you have compounds of these trace metals being erupted and condensing around volcanoes on Earth," Fegley said. "Now on Venus, which is much hotter than Earth, you'd have a similar

process: You'd be erupting these trace metals, which would then stay in the gas phase until they reached a high enough atmospheric level where they'd condense."

"Because you have a decrease in temperature with altitude, places like the Maxwell Montes on Venus — similar to Mauna Loa in Hawaii — get cold enough that some of these things would start to condense out."

The researchers took the list of possibilities and used their expertise in chemical thermodynamics to help them narrow the pool of suspects. In this case, whether a particular compound remained a plausible candidate was governed by two factors: thermodynamics — the rules that predict chemical stability based on environment — and the chemical profile of Venus, which was obtained from earlier American and Russian data-gathering missions.

"One of my old professors from MIT (Gordon Pettengill, the principal investigator for the Magellan SAR project) did an experiment that proved our model for the (existence of) metallic snow, but he suggested tellurium," Fegley said. "I decided to re-examine the issue in early 2003."

Schaefer and Fegley carefully considered what could happen to tellurium after it was introduced into the Venusian atmosphere by a volcanic event. But they went a step further by allowing it to undergo reactions with other volatile species present in the atmosphere.

As it turns out, sulfur dioxide is the third-most-abundant gas on Venus and is a major contributor to the thick layer of sulfuric acid clouds that envelope the planet. According to thermodynamic equations, any significant concentration of volatile tellurium would react with these sulfur-containing compounds to make tellurium sulfide, a relatively stable gas.

"So it can't just condense out because it's undergoing chemical reactions instead," Fegley said.

Lead sulfide and bismuth sulfide were identified as front-run-

ners thanks to a specific physical property called a dielectric constant — an intrinsic value describing a material's electrical conductivity — that Magellan's SAR measured in 1991.

"Typical volcanic rocks have a dielectric constant of a few, maybe 4, but the stuff that Magellan saw in the highlands of Venus was much higher, about 100," Fegley said. "In order to have a dielectric constant that high, you have to have something that's either a semiconductor or a conductor, and actually, these minerals that we've proposed condensing, the galena (lead sulfide) and the bismuth sulfide, have dielectric constants that are basically — BANG! — right on."

If Schaefer and Fegley are right, having "snow" made of lead sulfide could have implications beyond confirming their own work; it could be used as a means of dating the beginning of Venus' existence.

So how exactly would that work? By the same process that scientists have used to date the age of the Earth — lead dating — using the ratios of different lead isotopes (which differ only in number of neutrons).

All of these lofty dreams rest on there being an actual sample of dirt to analyze; a dream that could become reality with one of NASA's New Frontiers Missions, a competitive \$650 million endeavor to be selected for funding in the next year or two.

Venus aficionados like Fegley are pushing for a more comprehensive probe of the Earth's nearest neighbor. Their mission would include a detachable landing module that could perform geochemical analyses in the highlands using techniques like X-ray fluorescence and X-ray diffraction.

"All these ideas — these calculations — can be tested by one of these New Frontiers spacecrafts, if the Venus mission is picked," Fegley said. "What makes this type of work exciting is the fact that these ideas could be tested by spacecrafts that are on the drawing boards today."

Notables

Of note

Adam S. Kibel, M.D., assistant professor of urology in the School of Medicine, has been selected to participate in the 2004 American Urological Association (AUA)/European Association of Urology (EAU) Academic Fellowship Exchange Program. The program is designed to pro-

vide young urology faculty with an international perspective on urologic medicine. It also promotes the interchange of urological skills, expertise and knowledge, and assists in identifying future leaders within both the AUA and EAU. ...

Kevin E. Yarasheski, Ph.D., associate professor of medicine and of cell biology and physiology in the Division of Endocrinology, Metabolism and Lipid

Research, has been selected to serve on the AIDS Clinical Studies and Epidemiology Study Section, Center for Scientific Review for the National Institutes of Health. Yarasheski studies the pathogenesis of metabolic complications and muscle protein wasting associated with advanced age, HIV infection, cancer and malnutrition, and evaluates effective therapies for these metabolic disorders. He will serve on the

study section from March 2004 through January 2007. ...

Randall J. Bateman, M.D., neurology resident in the School of Medicine, has been named one of three recipients of the prestigious Corporate Roundtable Clinical Research Training Fellowship sponsored by the American Academy of Neurology (AAN) Foundation. The AAN fellowship will fund two years of research, which Bateman will conduct at the

University's Alzheimer's Disease Research Center (ADRC) under the mentorship of **John C. Morris, M.D.**, the Harvey and Dorismae Hacker Friedman Professor of Neurology, professor of pathology and immunology and co-director of the ADRC, and **David M. Holtzman, M.D.**, the Andrew B. and Gretchen P. Jones Professor of Neurology and head of the Department of Neurology. He also is the Charlotte and Paul Hagemann Professor of Neurology and Molecular Biology & Pharmacology.



Haute couture Senior Kristy Fammartino, a fashion design major in the School of Art, adjusts a gown modeled by freshman Rachel Brockway at the Fashion Design Program's annual "Gowns in the Gallery" Feb. 12. The one-night-only exhibition, held at the School of Art's Des Lee Gallery, featured ball gowns inspired by botanicals and evening dresses inspired by the colors of Carnival in Rio de Janeiro, Brazil. The event offered a preview of the 75th annual School of Art Fashion Design Show, scheduled for May 2 at Saint Louis Galleria.

Carmody is new GM for dining services

By NEIL SCHOENHERR

Kathy Carmody was recently promoted to general manager for dining services.

She takes over for Greg Teator, who resigned at the end of last semester.

Carmody had previously worked as director of operations for dining services. As general manager, Carmody will oversee all aspects of dining services, from financial to daily operations.

"I will work with the University to ensure that we are accomplishing their mission for food service on campus, including future planning, while also meet-

ing the expectations of Bon Appétit, which is focused on quality and freshness of food served and customer service," she said.

Rick Turner, former executive chef, has been promoted to director of operations. Carmody and Turner are part of a five-member executive group that works to keep the University's dining facilities in top operating shape.

It's no small job. More than 200 dining services employees serve some 12,000 meals at the University every day.

All the hard work has paid off — the University's dining services is consistently ranked among the best college food service in nation.

A&E

Helps 'build a climate of high expectations'

— from Page 1

Wrighton wrote in a letter to University employees. "For more than 40 years, the Arts & Education Council has been helping St. Louisans enjoy and experience the arts and see the world in new, creative ways.

"For all of those years, the Washington University community has been one of the most generous contributors to the Council's annual campaign. I hope that we will once again be able to make the kind of contribution that represents our commitment to the importance of the arts in our region."

Faculty and staff received Wrighton's letter earlier this

week, along with a packet of information about this year's campaign, called "Keep Art Happening," and a pledge card that explains how contributions are used and the benefits to those who contribute.

"Our goal is to raise \$30,000 from Washington University faculty and staff for the campaign," Wrighton noted. "Please consider even a small gift to this important campaign. It is amazing to think that if just 2,000 of our 14,000 employees gave \$4 a month, we could raise nearly \$100,000!"

All contributors of \$50 or more will receive the A&E Card, which entitles them to receive two-for-one or half-price tickets to more than 200 events and performances each year.

Participating venues include Jazz at the Bistro, St. Louis Black Repertory Company, Dance St. Louis, Opera Theatre of St. Louis and many others. Such contribu-

Obituaries

Joist, 69; medical school

Johann Heinrich Joist, formerly an assistant professor of medicine and director of the Hemostasis and Thrombosis Laboratory at what is now Barnes-Jewish Hospital, died Friday, Feb. 13, 2004, at his home in Clayton after a yearlong battle with mesothelioma. He was 69.

Stoia, 88; taught music

Eugene Stoia, who taught music in the early 1950s, died Tuesday, Jan. 20, 2004, of natural causes at a convalescent home in Sonora, Calif. He was 88.

tors will also receive the bi-monthly *Arts Newsletter*, where all of these special deals are listed.

More importantly, that \$50 contribution will provide pointe shoes for a ballerina, or fuel a theater touring van for a week, or allow an aspiring artist to attend a six-week drawing or painting class. A contribution of \$100 underwrites a summer scholarship, creates a teacher-education packet or supplies a needy dance student with shoes and clothing.

"We simply cannot take the economic and social impact of our fine cultural organizations for granted," said campaign chair Jeff Pike, dean of the School of Art. "By supporting the A&E Council, we help build a climate of high expectations and academic rigor while allowing our young people learn vital problem-solving and critical-thinking skills."

Campus Authors

Carl Phillips, professor of English and of African and Afro-American Studies, both in Arts & Sciences

The Rest of Love: Poems

(Farrar Straus & Giroux; 2004)

With his seventh volume of poetry recently published, Carl Phillips views *The Rest of Love: Poems* as a continuation of his last two collections, *The Tether* (2001) and *Rock Harbor* (2002).

Written partly in St. Louis and partly in Cape Cod, Mass., in 2002, *The Rest of Love: Poems* continues wrestling with the notion of how humans prefer the concrete, but that this preference is useless in the face of such abstractions as desire, belief and fidelity.

"*The Rest of Love* is more brutal, maybe, more determined to face what, for me, seems a truth — that there are limits to what can be done about love in particular," Phillips said, "that we are striving for an ideal that we already know we're doomed never to be able to attain. At best, we can try to reconcile ourselves to our strange fate. Some lines from the poem 'Fray' maybe sum it up:

... I could love you
as I had loved you — as only
humans can love each other: it's

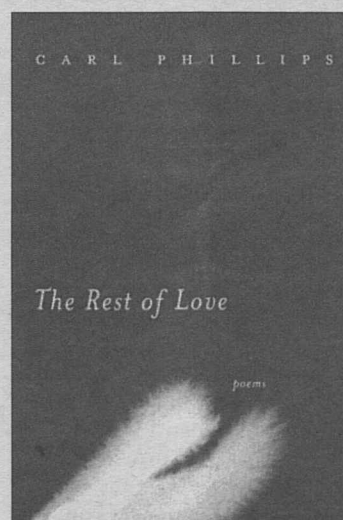
a human need,
to give to shapelessness
a form.

"By 'shapelessness,' I mean everything from our individual lives to those of others whom we want to conduct a life with, to such things (whether they exist or not) as the soul."

If this sounds more involved than your usual light reading, that's because it is. When Phillips reads poetry, he wants to be made to see something in a way he never had before. He wants to be surprised by language. He wants to think.

It's no surprise, then, that the same thought process carries over to his own writing.

"I believe that language can be made to carry much more weight, and to do more work, than most of us ask of it in daily speech," he said. "For me, poetry isn't daily speech, but the chance to invest language with



power.

"But that means weighing each word as it goes onto the page, and it means that sentence-making is a difficult and responsibility-filled business. Hence, my poems' tendency to move carefully, pausing a great deal, leaning on individual words in order to see them from several sides."

— Andy Clendennen

Employment

Go online to hr.wustl.edu (Hilltop Campus) or medicine.wustl.edu/wumshr (Medical Campus) to obtain complete job descriptions.

Hilltop Campus

For the most current listing of Hilltop Campus position openings and the Hilltop Campus application process, go online to hr.wustl.edu. For more information, call 935-5906 to reach the Human Resources Employment Office at West Campus.

General Lab Assistant-Part Time 020237

Business Development Specialist 030334

Regional Dir. of Development 030252

Admissions Counselor 040025

Earth & Planetary Sciences Library Asst. 040029

Assoc. Director, Business Library 040066

Administrative Assistant 040073

Senior Research Assistant 040078

Asst. Dean & Academic Coord. 040090

Regional Dir. of Development 040096

Dir. of Human Resources — Medical School 040103

Medical Sciences Writer 040106

Research Asst. 040120

Network Systems Engineering Manager 040124

Assoc. Dir. of Parent Programs 040128

Administrative Secretary 040129

Assoc. Dir. of Capital Projects 040130

Dir. of Donor Relations & Major Gifts Admin. 040131

Administrative Asst. 040134

Marketing Asst. 040135

Residential College Director 040136

Assoc. Dean & Dir. of Non-degree Exec. Ed. Programs 040137

Assoc. Dir. of Development, School of Law 040139

Grant & Payroll Accountant 040140

Laboratory Preparation Specialist 040141

Service Center Team Leader 040143

Administrative Asst. 040144

Planned Giving Officer 040145

Exec. Asst. to V.C. Alumni & Development 040146

Senior Accountant 040150

Senior Grants Specialist 040151

Administrative Aide (Professional Rater) 040152

Medical Asst. II 040832

Medical Asst. II 040934

Data Analyst 040990

Patient Billing Services Rep. II 040993

Data Entry Operator II (Part Time) 040994

Medical Asst. II 040995

Medical Secretary III 040996

Accounting Clerk I 040997

Statistical Data Analyst 040998

Secretary II (Part Time) 040999

Secretary III 041000

Professional Rater I 041001

Patient Billing Services Rep. II (Part Time) 041002

Grant Budget Specialist 041003

Statistical Data Analyst 041004

Animal Care Technician II 041005

Administrative Coord. 041007

Coder, Certified 041008

Sr. Analyst — Finance Planning Project (Part Time) 041010

Secretary III 041012

Purchasing Coord. 041013

Insurance Billing & Collection Asst. III 041033

Nurse Practitioner 041034

Nurse Practitioner 041035

Custodian 041036

Custodian 041037

Custodian 041038

Custodian 041039

Custodian 041040

Medical Asst. II 041041

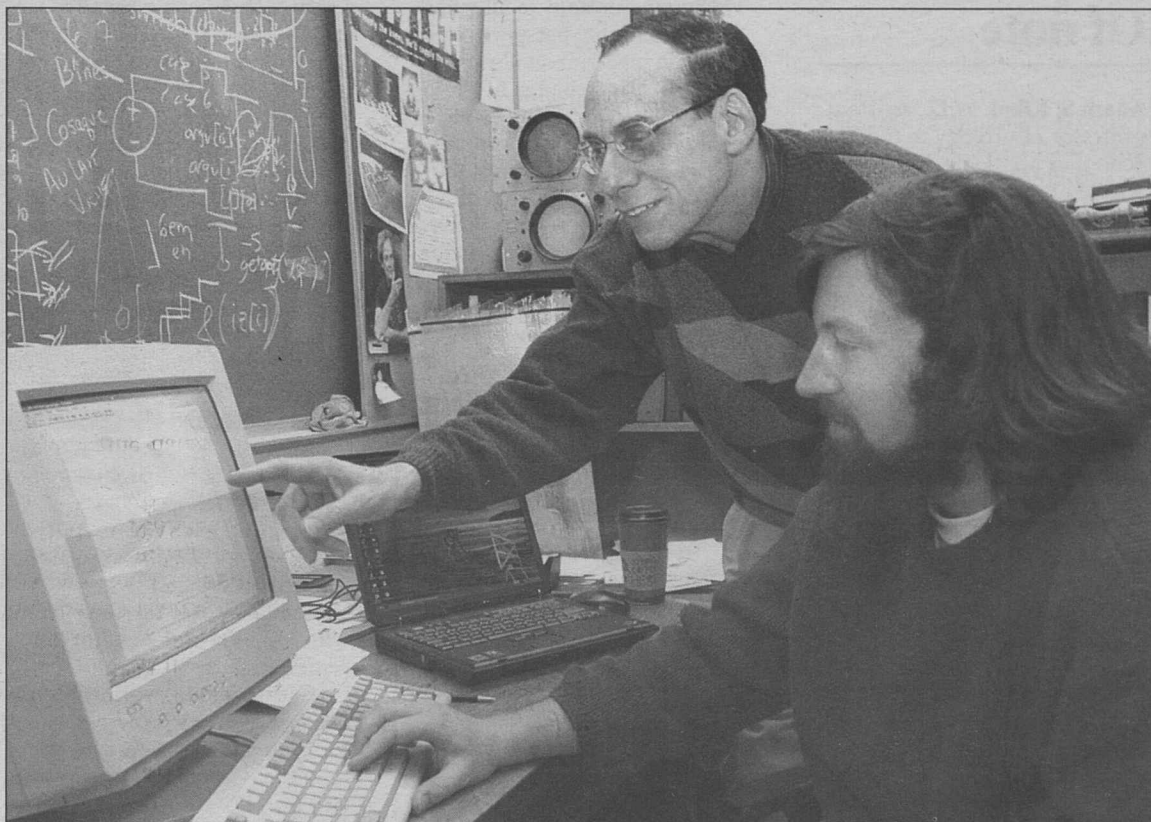
Washington People

First there was HEAO, then SOFIE, then CRIS and now TIGER. For an astrophysicist whose major research projects over the past 36 years have had these acronyms, it is only fitting that Martin H. Israel, Ph.D., drives a car with license plates that read "COSMC" — as in cosmic rays.

Since he arrived at the University in 1968, Israel, professor of physics in Arts & Sciences, has been involved in some of the world's most successful studies of the composition of galactic cosmic rays (GCRs), highly energized atomic nuclei that shoot through space at nearly the speed of light and originate from outside our solar system.

Israel and his colleagues in the Department of Physics and the McDonnell Center for the Space Sciences, also in Arts & Sciences, have developed innovative instruments that have been sent aloft in spacecraft and on high-altitude balloons to measure the composition and energy of heavy cosmic rays.

Israel says the study of GCRs will lead to a better understanding of their origin and the explosive processes in our galaxy that are



Martin H. Israel, Ph.D. (left), professor of physics in Arts & Sciences, and Lauren Scott, a doctoral student in physics, review data from TIGER (Trans-Iron Galactic Element Recorder), the University and NASA's balloon-borne experiment that recently completed a second flight over Antarctica to collect rare celestial atomic particles called cosmic rays. "I am continually amazed by Marty's ability to juggle his teaching and research responsibilities," Scott says.

An inspirational leader

Martin H. Israel has excelled as a researcher, teacher and University administrator

By SUSAN KILLENBERG MCGINN

responsible for giving the nuclei such enormous energy.

"A person looking out at the night sky usually sees a quiet and peaceful panorama, but in fact there are dynamic, explosive events going on throughout our galaxy and beyond," Israel says. "The GCRs carry signatures of these energetic processes."

His interest in things galactic dates back to his childhood growing up in Chicago. Although living in a big city with big city lights didn't lend itself to great stargazing, he enjoyed visiting the renowned Adler Planetarium on Lake Shore Drive. And he remembers gravitating toward astronomy books from the time he started reading.

In between high school and college, Israel worked at Chicago's Museum of Science and Industry, and one day he met Dan Posen, a well-known physicist in Chicago with a science show on the local PBS station.

Posen, a museum adviser, started asking Israel about his scientific interests and plans. Israel recalls Posen emphatically interjecting after a few minutes: "No, you don't want to be an engineer. You really need to be a physicist."

Four years later, in 1962, Israel graduated Phi Beta Kappa from the University of Chicago with a bachelor's degree in physics. His interest in cosmic ray research was piqued there while working in a lab with John Simpson, "a giant in the field of cosmic ray work."

It was solidified when Israel got to the California Institute of Technology to begin his doctoral studies and soon discovered a bur-

geoning cosmic ray group there.

While a graduate student at Caltech, Israel helped build one of the early electronic cosmic ray detectors, an improvement over the previous technique of using nuclear emulsions — similar to photographic film — to record the cosmic rays tracks.

One major advantage was that the data could be transmitted to Earth, permitting data recovery from instruments on spacecraft that never returned to the ground.

When he joined the Washington University faculty in 1968 as assistant professor of physics, he was welcomed into a cosmic ray research group — led by physics professors Michael W. Friedlander, Ph.D., and Joseph Klarmann, Ph.D. — which was just starting to develop electronic detectors.

Within two years — encouraged by Robert M. Walker, Ph.D., the McDonnell Professor of physics who had invented plastic track detectors for cosmic rays — the research team had developed the first electronic detector for looking at particles heavier than iron.

In collaboration with the Caltech research group, one at the University of Minnesota and W. Robert Binns, Ph.D., then a staff scientist at the McDonnell Douglas Research Laboratory and now research professor of physics at Washington University, Israel's team sent a similar instrument on HEAO-3, NASA's third High Energy Astronomy Observatory satellite.

Among the data gleaned from the HEAO-3 experiment were the first measurements of the composition of cosmic rays from iron up to uranium, creating the standard set of data on abundances of these heavy elements.

"The data have provided some serious constraints on the models about where cosmic rays come from and how they are accelerated," Israel says. "But they left some serious questions, and that's why we are still working on this."

The "we" is something that Israel stresses. While he has been the principal investigator on a number of studies, he is adamant about sharing credit with fellow faculty, technical staff and graduate students.

Like a proud father, Israel rattles off the names of students

who have worked on the various experiments, such as SOFIE (Scintillating Optical Fiber Isotope Experiment), CRIS (Cosmic Ray Isotope Spectrometer) and TIGER (Trans-Iron Galactic Element Recorder).

Lauren Scott, a physics doctoral student who has worked on CRIS and TIGER, is grateful for the experience and guidance he's received from Israel.

"His abilities as a teacher, both in the classroom and when working one-on-one with a student, are unparalleled," Scott says. "I find that not only do I learn a great deal in meetings with Marty, but that he helps me to acquire the skills necessary to tackle new and difficult problems by myself."

"In this way, Marty is one of the most inspirational figures on my journey to become a teacher."

Tackling new and difficult problems is something that Israel is adept at, too. When the dean of the faculty of Arts & Sciences abruptly resigned in 1987, then-Chancellor William H. Danforth asked Israel, who was associate director of the McDonnell Center, to step in as acting dean. Two days later, he did.

After a nationwide search, Israel was named dean in July 1988. "I guess as acting dean they thought I was a good actor," he jokes.

As the chief administrative officer of the largest academic division on the Hilltop Campus, Israel engaged in extensive planning, achieved fiscal stability, improved physical facilities and helped develop faculty and departments.

"In a time of need, Washington University depended on Martin Israel's outstanding character, his energy, his intelligence, his hard work, his good will and his devotion to the best in academic life," Danforth recalls. "He immediately inspired trust in us all and led the faculty of Arts & Sciences from a period of financial confusion and pessimism back to stability and forward motion."

"It was a turning point in the University's history."

Danforth appointed Israel a vice chancellor in July 1994 with special responsibility for the Research Office and various other aspects of advanced planning.

He returned to full-time teaching and research in July 1997, having missed the interaction with graduate students in the lab and undergraduates in the classroom.

And he took on an additional teaching assignment, outside of physics, that held great personal meaning.

From 1999-2002, he was a guest

lecturer in "Principles of Biology II," taught by Sarah C.R. Elgin, Ph.D., professor of biology in Arts & Sciences. The course focused on molecular genetics for some 450 prospective biology majors and premed students. This semester, Israel is a guest lecturer in her new "DNA Workshop" for non-science majors.

What can an astrophysicist contribute to a discussion on genetics and DNA? Plenty when the subject is Fragile X Syndrome, the most common inherited form of mental retardation. Israel's son, Sam, is mildly retarded as a result of Fragile X.

Since Sam was diagnosed in 1981, Israel has kept up with the scientific literature. Israel's wife, Margaret, is co-founder and president of the Fragile X Resource Center of Missouri, a parents' support and educational outreach group.

"While not a geneticist, I'm in a position to talk about the genetics of Fragile X at a fairly detailed technical level," Israel says. "And at the same time, I can put a personal face on it and talk about our son and how he succeeds, what was involved in getting him diagnosed and what that implies."

"Dr. Israel's lecture was always one of the most popular lectures in the course, and one that students remembered long after they had forgotten much of the rest," Elgin says. "The immediacy of the presentation — 'this is my family' — had a gripping effect, and made the world of genetic disabilities real for the students."

Martin H. Israel

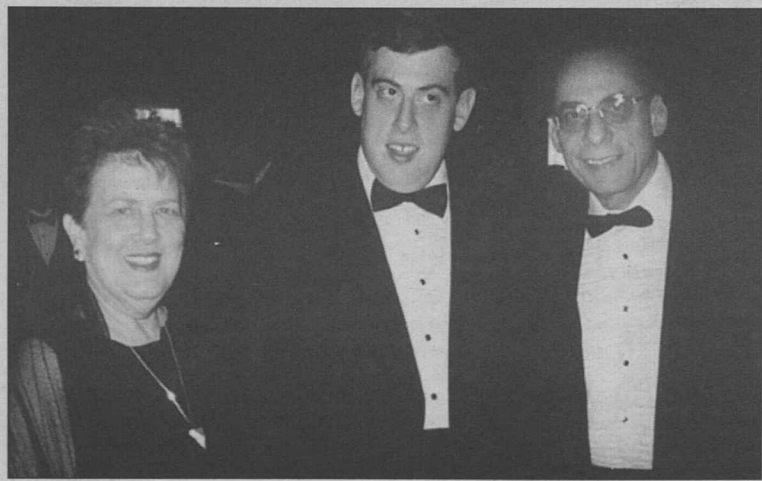
Titles: Professor of physics; fellow, McDonnell Center for the Space Sciences

Degrees: B.S., physics, University of Chicago, 1962; Ph.D., physics, California Institute of Technology, 1969

Family: Wife, Margaret; daughter, Elisa, 31, who earned a master's degree in earth and planetary sciences in Arts & Sciences from the University in 1996 and works at the St. Louis Science Center; son, Sam, 28, works in Saint Louis Galleria's Food Court

Married: 38 years; they met at a dance mixer while he was at Caltech and she an Italian major (B.A., M.A.) at the University of California, Los Angeles

Interests: Theater, symphony, swimming at the Athletic Complex three times a week



Martin Israel with his wife, Margaret, and son, Sam, at a gala fundraiser in Pittsburgh to benefit research on Fragile X Syndrome.