Family on the 40: Wysessions move onto campus

BY MARTHA EVERETT

Michael E. Wysession, Ph.D., associate professor of earth and planetary science in Arts and Sciences; his wife, Joan; and their son, Willie, move into their new home — the Elizabeth Gray Danforth House on the South 40. Wysession is the University’s first residential Faculty Fellow.

Inner-city community workers to get new tools for social services

BY GERRY EVERDING

When social policy experts set out to solve the ills of inner-city neighborhoods, they sometimes forget that a highly dedicated corps of community workers and social service providers already are hard at work in most neighborhoods. Often underpaid and seldom provided with adequate resources, these front-line workers usually find some way nonetheless to make an important difference in their communities. Recognizing that these practitioners already possess the compassion, drive and street smarts so critical to effective community development, the George Warren Brown School of Social Work is launching an innovative, multi-university, public-private partnership to help these workers get the advanced training and education necessary to advance their careers and become true leaders in the urban communities of St. Louis.

“Our goal is to take people already working in important community programs such as substance abuse, delinquency, mentoring and latch-key education and give them the tools to do their job smarter, better and more effectively,” said James Herbert Williams, Ph.D., assistant professor of social work and chair of the program.

Known as the Urban Family and Community Development Program, the interdisciplinary project will be based at and administered by the social work school. Academic partners include the schools of Law, Business and Architecture and the Department of Education in Arts and Sciences at Washington University; the schools of Law and Public Health and the Department of Public Policy at Saint Louis University; and the Department of Criminology at the University of Missouri-St. Louis.

The program offers 27 hours of graduate-level training over a 15-month period for people who currently work in predominately low-income neighborhoods. Its objective is to strengthen the skills of practitioners who serve children, youth and families by helping them think beyond short-term crisis intervention and focus on broader strategies that integrate and build upon existing resources in the community.

To ensure an interdisciplinary perspective, courses will be co-taught by teams of instructors drawn from various fields and from diverse academic programs at all three universities.

They’re here!

Class of ’02 brings wealth of talent to campus

BY MARTY EVERETT

The incoming freshman class is an exceptional group. The 1,495 students in the Class of 2002 constitute the largest class in the University's history. For their young years, the new students have amassed some impressive statistics. And not surprisingly so: They were culled from a record 16,200 applicants. Out of the 1,500 who visited, about half chose to enroll.

Hurricane is "windfall" for researchers in Caribbean

Scientists gain new understanding of how the brain can block pain

Arthur Z. Eisen, M.D., is pioneer in field of dermatology

They key, we know they're smart, Michael E. Wysession, bred at Brown and Northwestern universities, is associate professor of earth and planetary sciences in Arts and Sciences. His wife, Joan, matriculated at Northwestern and takes graduate courses at Washington University.

And we know they're brave. How else do you explain the co-existence of both a three-year-old son and a snow-white couch in the family room?

So which attribute — intelligence or courage — was more tested last winter when James E. McLeod, vice chancellor for students and dean of the College of Arts and Sciences, called with one of those are you talking-to-me offers? "Michael said, 'You're not going to believe the phone call I just got from Jim McLeod,'" said Joan, recalling the conversation. "'How would you like to live in the Clayton school district, with a free mortgage and meals — and just one condition?' And I said, 'Well, talk to me about it.' And Michael said, 'We'll get to live with 280 freshmen.'

Meet the Wysessions: The Family on the 40.

The address is the Elizabeth Gray Danforth House: the name on the proverbial mailbox is Faculty fellow for William Greenleaf Eliot College. The Wysessions — Michael, Joan and Willie — moved in two weeks ago. Their three-bedroom, two-bath, 1,500-square-foot apartment is located in the southeast corner of the otherwise-freshmen Danforth House — one of three newly constructed residence houses. Danforth and the Ethan Greenleaf Eliot College. The Wysession is the University’s first residential Faculty Fellow.

Fossett provides students rare learning experience

Safe on land after a harrowing, 29,000-foot plunge into the sea and a dramatic rescue, adventurer Steve Fossett plans to "smell the roses" for a time and savor the record payload at mission control in Brookings Hall.

Fossett lifted off at 6:30 p.m. EDT Aug. 7 from Mendosa, Argentina, and though he was thwarted once again in this, his fourth attempt to circle the globe, the trip set numerous records, including:

• the first manned balloon crossings of the South Atlantic and Indian oceans;
• the longest distance — 14,233 miles by unofficial estimate — traveled by balloon;
• the fastest balloon flight across Australia — 19 hours, 31 minutes, a time that cut the previous record by more than half.

Fossett netted 63 percent of the globe longitudinally and eclipsed his own prior distance.

See Community, page 5

Students were "invaluable" throughout Solo Spirit mission

Chancellor Mark S. Wrighton and systems analyst Judd Bowman, a 1998 engineering graduate, examine data from the Solo Spirit mission. The trip set numerous records, including:

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See Fossett, page 6

See 2002, page 2

See Community, page 5
A biologist at Washington University and colleagues at the University of California, Davis were recipients of a windfall — literally — when Hurricane Lili struck the Bahamas in October 1996, according to an article just released in Science magazine.

Fate had handed them a unique chance to study polygonal populations that had previously only been hypothetically analyzed. In the wake of the storm, the study that several years later metamorphosed into a completely different one, dramatically revealing how natural forces periodically play with an ecosystem's order and tipped the sa-called "balance of nature." The scientists published the results of their study in the July 31 issue of Science.

"The trito had introduced lizards to the islands after the hurricane, and we were able to learn about the effect of predators on island populations," said Jonathan Losos, Ph.D., associate professor of biology in Arts and Sciences and co-author David A. Spiller and Thomas W. Schoener of the University of Virginia.

The day after the hurricane blew through a large island of Great Exuma, where they were staying, the biologists quickly took to their boats to re-examine the islands for a suddenly different study on the effect of natural catastrophes on island organisms. The day after the hurricane hit the islands, they conducted a census of Great Exuma, where they were staying, and the biologists quickly took to their boats to re-examine the islands for a suddenly different study on the effect of natural catastrophes on island organisms.

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Tortoise is looking for volunteers to participate. The Office of Human Resources is seeking volunteers to participate in a pair of community-connection programs that promote international friendships and further cross-cultural awareness. The "Helping Host Program" is designed to advance cultural exchange between international students and local volunteers. As part of the program, volunteers must invite students to share in family celebrations, as well as sports or cultural events, at least once a month. Host families include single adults, single parents, families with or without children, and friends and neighbors.

The "Speak English With Us Program" matches community volunteers with international students, faculty and researchers from the School of Social Work, the Medical Campus, and other programs that want to improve students' understanding of the English language and culture.

Although courses such as ESL as a Second Language are available to members of the international community, many have an additional desire for opportunities to improve their practical, everyday English. Volunteers meet with participants at a mutually convenient time and place, usually once a week for about an hour.

For more information, call the International Office at 935-5910. The Office of Human Resources is seeking volunteers to participate in a pair of community-connection programs that promote international friendships and further cross-cultural awareness. The "Helping Host Program" is designed to advance cultural exchange between international students and local volunteers. As part of the program, volunteers must invite students to share in family celebrations, as well as sports or cultural events, at least once a month. Host families include single adults, single parents, families with or without children, and friends and neighbors.

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The brain can teach cells in the spinal cord to feel pain, scientists have discovered. Over receptors on these cells are activated, they continue to transmit pain signals even if there is no injury, so blocking them may lead to better treatments for persistent pain.

"Nerve fibers from the brain can help control pain just like medications." Min Zhuo, Ph.D.

The investigators found that the brain also can enhance pain by activating silent synapses, a brain region called the rostroventral medulla (RVM) sends a chemical signal to the dorsal horn of the spinal cord. The neurotransmitter serotonin activates silent synapses. If silent or insufficient synapses were proposed more than 20 years ago, but technical limitations prevented detailed studies of how and why they are created. Using whole-cell patch-clamp recording techniques to monitor the electrical responses of individual neurons, Zhuo and his colleagues found that silent synapses are awakened to transmit pain signals. These synapses can be activated by both strong pain signals and messages from the RVM. Zhuo found that spinal cord neurons, much like those in the brain's hippocampus, become more efficient at transmitting signals through a process called long-term potentiation (LTP). LTP helps the hippocampus is associated with learning and memory. Zhuo suggests that pain learning also is accomplished through LTP. After intense or persistent pain, dorsal horn neurons and the RVM learn to transmit pain, and they continue to transmit pain signals back to the conscious part of the brain, just as we can't forget an old phone number or the truth about Santa Claus, silent synapses can't forget how to transmit pain, Zhuo said. Once activated by extreme or chronic pain, they remain open and transmit signals that otherwise would be blocked by the prevention of inappropriate signals to the brain. That may be why cancer pain can persist even after treatment. The good news is that silent synapses provide a potential target for pain blockers. As opioids and other drugs target normal pain pathways, other treatments might target these secondary pathways, interrupting the passage of inappropriate signals to the brain.

"Joe is one of those truly rare triple-threat physicians — he is an outstanding clinician, an excellent investigator and a wonderful teacher." Alan Schwartz, M.D.

A physician at Children's Hospital of Philadelphia and associate professor of microbiology at the school of medicine in the Division of Pediatric Infectious Diseases. His department includes more than 80 faculty members who treat both children and adults for infections. The event will help surgeons develop new medicines for the brain.

Gastroenterology pioneer honored

Clouse receives research award

Ray E. Clouse, M.D., professor of medicine in the Division of Gastroenterology, has received a Janssen Award in Gastroenterology. The award honors scientists and clinicians who have made important contributions to the field.

The award was presented at the recent annual Digestive Diseases Week (DDW) scientific gathering, held this year in New Orleans. DDW is the world's largest meeting of specialists in the fields of gastroenterology, hepatology, gastrointestinal endoscopy and nutrition.

Clouse is among four winners of the Janssen Award for Basic or Clinical Research in Gastrointestinal Motility. The awards were initiated in 1995 to recognize dedicated clinicians and investigators who have made outstanding contributions to gastrointestinal research and patient care. Award nominations are made by peers and department chairs at medical schools across the United States. Winners are chosen by a panel of distinguished representatives from the field of gastroenterology.

Clouse is a pioneer in the understanding of gastrointestinal motility — how the intestinal tract moves food from the mouth through the gut. In particular, he studies the esophagus, working to better understand the relationship between motility and disease.

"The esophagus is an ideal model for studying motility because it is a simple, tubular organ, and our food travels through it in a straight line from top to bottom," Clouse said. "In addition, unlike the rest of the gut, the esophagus only moves things; there is no secretion or absorption involved."

Using catheters to measure pressure in the esophagus, Clouse has mapped the contractions that allow food to pass through the organ. Using computer technology, he has been the first to map those movements in a 3-D, topographic way to better understand the sometimes very minor differences between healthy function and disease of the esophagus.
University Events

Constructing American images

Assembly Series offers stellar fall lineup

Film director Spike Lee, National Public Radio host Orenstein, medical sociologist Fox and more will anchor the fall lineup of other speakers who will bring a wealth of knowledge, perspective and experience to Washington University in the Fall 1998 Assembly Series. The series, now in its 45th year, offers free lectures to the general public. The lectures are planned by the Assembly Series Committee and designed to offer a variety of publications on the arts and sciences. The series will open the Assembly Series Sept. 9 with a lecture "Curious Minds: "The Art of Adolescents." Orenstein has written numerous books on popular musicians.

Carla Maxwell, dancer-choreographer, on campus

March 30, 1900: Carla Maxwell was born in Boston, Mass. Maxwell became a principal dancer of the Limon Dance Company, one of the first American professional dance companies. In late October, Pamela Jones-Malave, a dancer with the Limon Company has staged a master class in the Limon technique and offered a master class in "Carlotta," Limon's final ballet, for three weeks to continue her work with the company.

Visible Poetry + Posters + Israeli dancers

Monday, Aug. 31
7 p.m., Room 935-5983.

Robert J. Main, who has served as the chief negotiator for the Irish Peace Peace Accord, during 14 years in the Senate, Mitchell recently testified to verify the North American Free Trade Agreement and to create the World Trade Organization.

Lectures

Tuesdays, Sept. 2
6:15 p.m. Fiction and poetry reading.
Tuesdays, Sept. 9
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Campus Store remodeled, offers more books, music, gift items

One of the most popular places on campus this time of year has a new book. This month, Washington University's Campus Store in Mallinckrodt Center will complete the University's remodeling project that increases the bookstore's square footage and convenience. The physical improvements began last November when Follett closed its pop-up store—the nation's largest contractor of college bookstores—to take over the store's management.

A major part of the renovation involved connecting the two floors of the bookstore's offerings and converting the entire front of the store. Visitors can now enter the course book department located on the lower level through the main level, where school supplies, general reading books and gift items are sold. That means shoppers can check out all of the store's offerings in one stop.

Other changes that students are enjoying are benefiting from the changes. A Braden Reading Room Book Club has been created to reward frequent book buyers. After purchasing 10 general and bargain books, students can get a free book.

Second year and beyond students will continue to receive a 20 percent discount on in-stock general and bargain books, and a 10 percent discount off the price of calculators and course books.

Course book shelving and the general book area have been expanded, allowing the store to carry more items. The store now carries a larger line of Washington University products, including bumper stickers, mugs and a new clothed line. And soon, distant University fans will be able to buy their Bears sweatshirts without visiting the store. A new clothing catalogue is being introduced for on-line and mail-order purchases.

Marthella J. Ellison and Robert Green were among the guests of honor Aug. 13 at a luncheon Chancellor Mark S. Wrighton gave for retiring employees.

Nearly 1,100 years of service honored at employees' retirement luncheon

W

Marthella J. Ellison plans to hang up the hat. Since 1973, the School of Medicine veteran has processed microscopic tissues for the Department of Pathology, where she served as histology supervisor for 19 years.

"I've always enjoyed my work," Ellison said. "I also enjoyed the benefits," she added pointing out that two of her children graduated from the University.

But the grandmother of five— who began her career with the University at the tender age of 18 — said she is looking forward to retirement.

"I've done a lot of traveling— Mexico, Alaska, Puerto Rico, Egypt, Europe, the Orient," Ellison said. "I really like to go to Jamaica," she said.

Ellison was one of 56 staff retirees from the Hilltop and Medical campuses who were recognized at an Aug. 13 luncheon hosted by Chancellor Mark S. Wrighton at the Whitman House. Each of the retirees, whose employment ranged from 10 to 40 years, received a commemorative wall plaque.

Retirees received their awards from the heads of their respective departments. Promoters for the Hilltop Campus were Virginia F. Toliver, director of administration and planning for Ohio Library; David T. Blasingame, director of Facilities Planning and Development Program; and Richard A. Rolf, executive vice chancellor for health affairs and Edward S. Macons, Ph.D., executive vice chancellor and dean of Arts and Sciences.

"It's in large part a result of your efforts—we are no better than the people who support us. The people in this room represent more than 1,000 years of cumulative service," Wrighton noted. "Some of you can look back more than four or five retirees. Yet in some ways your life is now just beginning. I wish you a long and very happy retirement and that you will visit us often."

For more information, contact Deborah Paulsrud by phone at 935-7263 or by e-mail at dpaulsr@wustl.edu.

Sports Section

Bears prep for season

With only 11 seniors and 57 underclassmen in the fall for 1998, the football team figures to have a difficult road ahead. The Bears (6-4-1) are searching for their fourth undefeated team in 10 years. Aside from the 1989-90 and 1991-92 teams, the way will be hard to repeat.

Richard A. Rolf, executive vice chancellor for health affairs and Edward S. Macons, Ph.D., executive vice chancellor and dean of Arts and Sciences.

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Picking up speed

John Dehart, (standing, center), senior research associate in computer science, helped set up one of two National Science Foundation workshops held here this summer to train 60 researchers from around the country in ultra-high speed networking technology. Jonathan S. Turner, Ph.D., chair of the Department of Computer Sciences, recently attended three professional meetings in Japan. He co-chaired a workshop on international competition on Software Specification and Design held in Fez-Shima. He also chaired a panel discussion on "Computing and Communication in the Age of Mobility" in conjunction with the International Conference on Software Engineering held in Kyoto. The address was titled "Science from the Old to the New Millenium," a brief tracing of science environments through two milleniums. Lewis is a native of Ontario, and was given the honorary degree for his accomplishments in plant biology...

On display

A show of drawings highlighting the last 10 years of work by Meton Gadeila, associate professor of architecture, recently opened at the Centro de Arquitectura and the Rio de Janeiro. Among his noteworthy projects, Gadeila served as senior designer for the Flottwellstrasse building competition in Berlin.

Speaking of

In a trip to Israel, four trips to Europe, two to Latin America, and one to the Far East, Stanley L. Paulson, Ph.D., J.D., professor of law, delivered 33 invited guest lectures and lead conference discussion papers in 15 countries. He will serve as co-director of four conferences on the work of legal theorists during the next year.

To press

An article by Peter Motharika, L.L.B., J.D., professor of law, titled "Creating an Attractive Investment Climate in the Malawi" in the Northwest and South African Region," was published in ICSD Review—Foreign Investment Law Journal. Motharika also twice represented a member of the executive committee of the United Party of Malawi and participated in a United Nations Development Conference on a long-term development strategy for Malawi.

Guidelines for submitting copy: One-page releases, unsigned, should be submitted to the nearest campus office, departmental, office number and highest academic level.

Jenkins named sports information assistant director

Keith Jenkins has been named assistant sports information director, according to John Schaltz, director of public relations. Jenkins is responsible for promotion and publicity of the Faculty of Science at University Campus Authors

The Muhammad Ali Reader

(Ecco Press, 1998)

Early: Edited and written introduction

The Muhammad Ali Reader collects more than 30 of the best writings about the "greatest" in an incredibly diverse range of the greatest of all time. The greatest.

Guidelines for submitting copy: Length: One-page releases, typed, in one double spaced page, should be submitted to the nearest campus office, departmental, office number and highest academic level.

On assignment

Samuel E. Dagogo-Jack, M.D., assistant professor of medicine, recently was elected president of the board of directors of the American Diabetes Association's St. Louis Chapter. Grulas-Catalan Roman, Ph.D., professor and chair of the Department of Computer Science, recently attended three professional meetings in Japan. He co-chaired a workshop on Software Specification and Design held in Fez-Shima. He also chaired a panel discussion on "Computing and Communication in the Age of Mobility" in conjunction with the International Conference on Software Engineering held in Kyoto. The address was titled "Science from the Old to the New Millenium," a brief tracing of science environments through two milleniums. Lewis is a native of Ontario, and was given the honorary degree for his accomplishments in plant biology...
Arthur Eisen’s research holds promise of advances in cancer care

By BARBRA RODRIGUEZ

Washington University in St. Louis

Leading the way in skin biology studies

Arthur Eisen’s research holds promise of advances in cancer care

C linician. Scientist. Educator. Arthur Z. Eisen, M.D., head of the Division of Dermatology, director of clinical services and dermatologist-in-chief at Barnes-Jewish Hospital, has juggled these roles for three decades at this University. But in 2004, he had someone ask him early on which means the most, the microscope likely would have won over the stethoscope.

“I saw myself as a scientist for many years, but I always had a strong involvement in medical aspects as well,” said Eisen, the Winfield A. and Emma R. Showman Professor of Medicine, who spends most of his time these days with administrative and patient duties. But his strength in both research and clinical practice were evident early in his career. In 1971 he collaborated with Thomas Fitzpatrick, M.D., Ph.D., now emeritus professor of dermatology at Harvard Medical School, to write one of the first comprehensive dermatology textbooks.

“Now in its fifth edition, “Dermatology in General Medicine” is widely regarded as the leading dermatology textbook, and Eisen has gained recognition both for creating a top-notch dermatology division and for promoting the development of high-caliber clinical dermatologists. “Eisen’s greatest legacy has been the people he has trained and his ability to focus on scientific excellence,” said Eugene Bauer, M.D., Ph.D., dean and vice president for medical affairs at Stanford University School of Medicine and Eisen’s first clinical fellow.

Under Eisen’s leadership, the Division of Dermatology has grown to include 23 full-time faculty studying issues ranging from the cell biology of the skin to the genetic underpinnings of skin diseases in mole enzymes play in remodeling tissue. And the dermatology residency program now selects among top medical candidates to fill five spots a year.

“It has been one of the most challenging and fun parts of my job to try and find people who are going to make contributions to dermatology in the future and foster their development,” Eisen said.

One beneficiary is Alice F. Portland, M.D., chair of the Department of Dermatology at the University of Rochester, who benefitted from Eisen’s guidance while she was a young faculty member.

In a follow-up visit, Arthur Z. Eisen, M.D., assured her that she never be in the cards for me.

Setting a career course

Eisen’s own interest in skin biology developed while in the laboratory of one of the fathers of skin biology research: William Montagna, Ph.D., at Brown University in Providence, R.I.

Eisen went on to earn a medical degree from the University of Pennsylvania in 1957 and then to work in a dermatology laboratory at the National Cancer Institute. A fellowship in dermatology at Massachusetts General Hospital followed in 1961, in which he heard the lecture that would set the future course of his research career.

Jerome Gross, M.D., now emeritus professor of medicine at Harvard Medical School, had isolated an enzyme called collagenase-1 that degrades collagen, a major structural protein in the extracellular matrix. This matrix provides a supportive network surrounding tissue cells. Gross had isolated the enzyme from the tadpoles, where it is thought to help turn the tadpole-shaped creatures into full-fledged frogs.

Surprisingly, the tadpole enzyme was primarily produced by cells in the upper layer of skin, called the epidermis, even though it acted in the lower, dermal layer of the skin. The researchers also isolated the human enzyme but showed that its primary source was instead the dermis.

Eisen came to the medical school in 1967 as an associate professor of medicine to hunch for the cells that synthesize collagen, in the human dermal layer of skin. The enzyme was difficult to detect, but Eisen quickly isolated it and showed that fibroblast cells, which live in the connective tissue, produced most of it. With Gregory I. Goldberg, Ph.D., professor of medicine and of biochemistry and molecular biology, he soon formed a team of investigators who purified and cloned similar degradative enzymes that attack collagen and other components of the extracellular matrix.

A family of 14 enzymes of this type, called metalloproteinases, are now known to exist. And the dermatology division is leading the way in this dynamic area of investigation, searching for the role metalloproteinases play in remodeling tissue.

But if he is carrying out studies that may reveal ways of hindering the processes involved to those enzymes work and when and where they are called into action to maintain normal tissue, he felt like someone handed us the keys to a Rolls Royce, and we’ve been enjoying the ride ever since,” he said.

His recent work focuses on the role metalloproteinases play in skin development, including the formation of structures such as hair follicles and relationship of the processes involved to those occurring in tumor progression. And he is carrying out studies that may reveal ways of hindering the growth of tumor cells in early stages of disease. When overproduction of metalloproteinases occurs, they can play a role in inflammatory diseases, such as rheumatoid arthritis and cancer.

Blocking tumor invasion

In his spare time, Eisen runs about 35 miles a week, as he has done for two decades. And he spends time with his wife, Mimsie, who teaches private piano lessons in the lake area. “She’s an incredibly supportive person and a good person to bounce problems off of,” he said.

The couple play golf together and spend time in St. Louis with the family of their daughter, Phyllis Kane, one of their three grown children. The Eisen’s also travel regularly and particularly enjoy visiting colleagues in France.

Eisen continues to find fulfillment in the metalloproteinase field that he helped nurture into existence. “When we first found something new, he said, “it’s still exciting.”