8-30-1990

Washington University Record, August 30, 1990

RECORD

Washington
WASHINGTON·UNIVERSITY·IN·ST·LOUIS

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Vol. 15 No. 1/Aug. 30, 1990

Cartoonist Peters is among speakers in Assembly Series

Paleontologist Stephen Jay Gould, author of *Wonderful Life: The Burgess Shale and the Nature of History* (1989), will open the fall 1990 Assembly Series at 11 a.m. on Sept. 5 in Graham Chapel. His talk is titled "On the Pattern of Life's History and the Improbability of Human Evolution." He was originally scheduled to speak Aug. 29.

Gould, the Alexander Agassiz Professor of Zoology at Harvard University, is the author of many books on evolution and scientific history, including *Ever Since Darwin* (1977), *The Panda's Thumb* (1980) and *The Mismeasure of Man* (1981).

The lecture series also will feature talks by Pulitzer Prize-winning political cartoonist Mike Peters, also known for his syndicated comic strip, "Mother Goose and Grimm"; Eleanor Holmes Norton, former chair of the Equal Employment Opportunity Commission; Thomas Lovejoy of the Smithsonian Institution, who originated the debt-for-nature swaps; and Gennady Gerasimov, an ambassador and spokesperson for the Soviet Foreign Ministry.

The Assembly Series, now in its 31st year, offers free lectures to the University community and the public. Unless otherwise noted, all of the lectures are held at 11 a.m. on Wednesdays in Graham Chapel.

At 4 p.m. on Sept. 11, Peter Gay, Sterling Professor of History at Yale University, will discuss "Goethe's Loves: A Psychoanalytic Reading." The author of *Freud: A Life for Our Times* (1988), Gay employs the tools of a psychoanalyst to study cultural trends.

Eleanor Holmes Norton, chair of the Equal Employment Opportunity Commission under President Carter, will deliver the Sept. 19 Fall Honors Lecture. A professor of law at Georgetown University, she is an authority on affirmative action, comparable worth, and race and gender matters. Norton, who is running for Congress, is chair of the American Civil Liberties Union National Advisory Council. She is a regular commentator for National Public Radio.

Attorney Gibson Kamau Kuria, winner of the 1988 Robert F. Kennedy Human Rights Award, will speak at noon on Friday, Sept. 21, in Room 200, Eliot Hall. A native of Kenya, Kuria is affiliated with the Human Rights Program at Harvard University.

Susan Spencer, correspondent and anchor for "CBS Evening News," will speak Sept. 26. Spencer, who joined CBS News in 1977, became the CBS News medical correspondent in 1983. After playing a key role in the series "U.S.-Japan: Dawn of a New Era," she became a national correspondent for the news network. Her stories also have aired on other CBS news programs and CBS radio.

Soviet spokesperson Gennady Gerasimov will speak on "The Smiling Russian Bear: Is it Dangerous?" at 4 p.m. on Thursday, Oct. 4. Gerasimov is the chief spokesperson for the Soviet Foreign Ministry and Ambassador Plenipotentiary and Extraordinaire for the Soviet Union. He began his career as a journalist for the communist parties' magazine, the World Marxist Review. He won the 1986 Vorovsky Prize for journalistic achievements, which is equivalent to the Pulitzer Prize.

On Friday, Oct. 5, in the May Auditorium in Simon Hall, Mike Peters, a political cartoonist for the Dayton Daily News, will speak on "Under Parody, Politics, and Pulitzer

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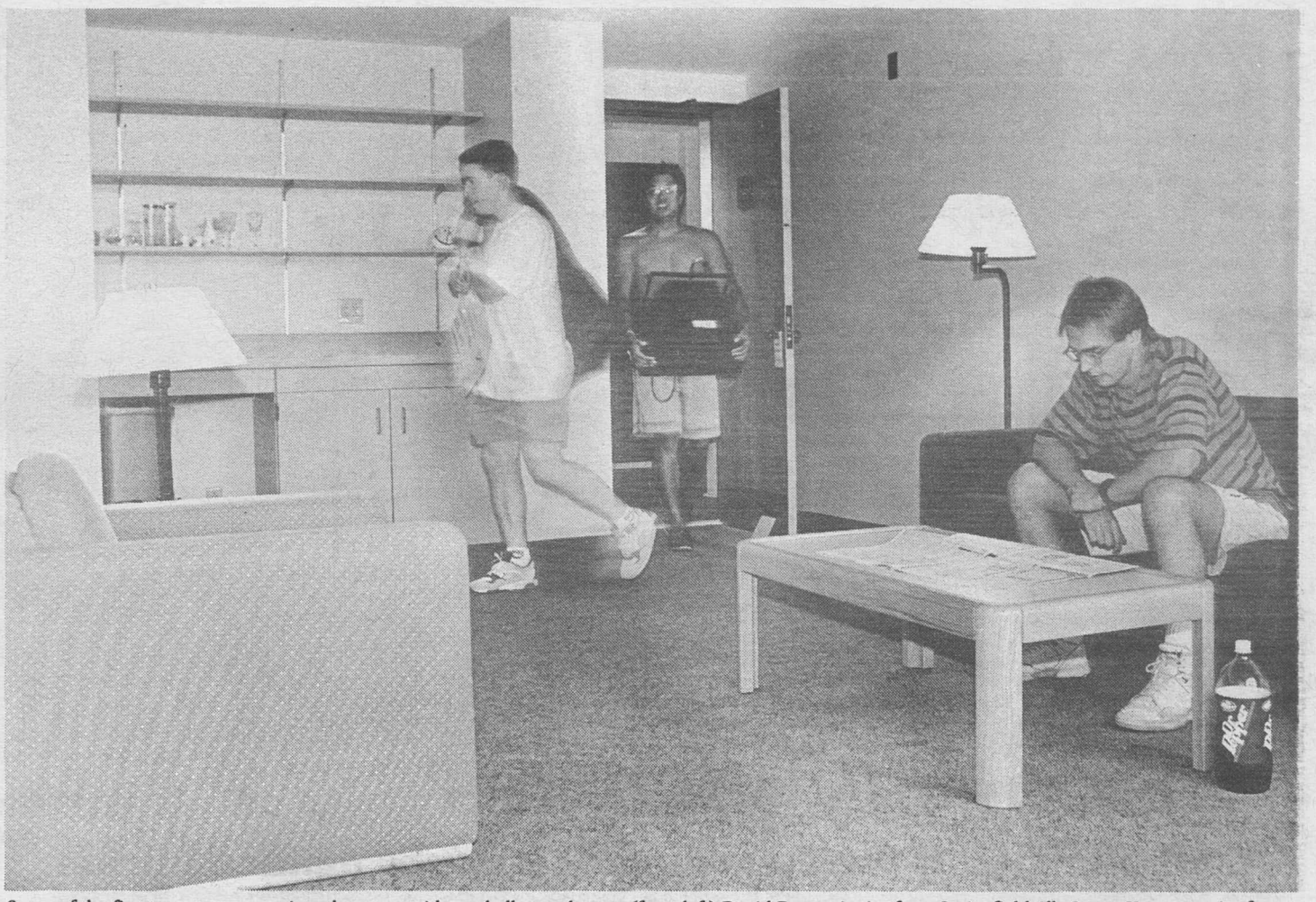

Some of the first tenants to move into the new residence hall complex are (from left) David Bass, a junior from Springfield, Ill., Lance Kam, a senior from Honolulu, Hawaii, and Zoltan Baker, a junior from Yorktowne Heights, N.Y. They share a four-bedroom suite that has a living room.

Wydown House

New residence hall complex is open for business

Among the nearly 2,600 students who moved into the University's residence halls this past weekend, some 300 juniors and seniors are settling in this week as the first tenants of the new $12.4 million residence hall complex called the Wydown House.

The 128,000 square-foot project located in the South-40 at the corner of Big Bend and Wydown boulevards consists of two five-story buildings that are connected by a ground floor corridor. The design of the complex is considered to be among the most advanced in the country.

"These buildings will help to fill a major need for upperclass housing on campus," says George C. Burris, director of housing and food service operations. "We are all very excited about being able to offer some of the best residence halls in the country."

Each building has five levels of suites. The suites are designed for four students and come with either four bedrooms and a living room or two double bedrooms and a living room. Each suite has its own heating and ventilating system thermostat.

Among the features included in the residence halls are wiring in each bedroom for personal computers to connect to the University's mainframe systems; a suite in each building to meet the needs of handicapped students; four soundproofed music practice areas in one building; an exercise room, complete with life cycles, stair climbers and rowing machines; and a laundry room and a kitchenette on every level.

Private study rooms with individual carrels are available on two levels of each building. In addition, the east building has a large multipurpose meeting/social room, which can be divided into two rooms. The multipurpose room also has a small food service area. Secure storage areas for students' belongings are available in each building.

The dark red brick and precast granite used on the exteriors match north campus buildings. An attached vaulted standing-seam roof system made of dark bronze sheet metal has been used to complement buildings on the Hilltop Campus.

The complex also includes a $1.1 million two-level 200 space parking garage, with one level below ground. The garage is open to all vehicles with residential parking permits.

The Hastings & Chivetta Architecture firm, headquartered in Clayton, Mo., is the principal designer. The firm of Nagle, Hartay & Associates Ltd. of Chicago is the associate designer. General contractor for the project is HBD Contracting of St. Louis. Other St. Louis firms consulted on the project are Theiss Engineers for structural engineering, McClure Engineering Associates for mechanical and electrical engineering, Polk & Polk for civil engineering and Landscape Architecture Resources for landscaping.

Experience theatre, dance, music and comedy

Edison series events range from Soviet plays to one-ring circus

Washington University's 1990/91 Edison Theatre season features international performing artists who will bring a range of classical and contemporary events to the stage.

The season will feature an 11-event "OVATIONS!" series; a new program called "Stage Left" in the Mallinckrodt Center Drama Studio; and an expanded "ovations! for young people." "OVATIONS!" now in its third season, offers a diverse selection of world-renowned performing arts events to the general public.

The "OVATIONS!" 1990/91 season will open on Sept. 21 and 22 with a two-night performance by LadyGourd Sangoma, four African-American female drummers breaking new ground in a predominantly male music form. The group members — Ahmondylla Best, Tiye Girud, Pat Hall-Smith and Pam Patrick — are, by their own definition, "non-traditional lovers of tradition."

Although primarily percussionists, the ensemble members also play bamboo stamping tubes, berimbao and beaded gourds to accompany their richly textured vocals.

Internationally renowned British actress Claire Bloom will present two dramatic readings. "Then Let Men Know: A Portrait of Shakespeare's Women" brings the Bard's heroines to center stage on Oct. 5. On Oct. 6, Bloom will offer her own dramatic adaptation of Henry James' *The Turn of the Screw*, the most famous ghost story in the English language.

Bloom has been receiving accolades since she first performed with the Oxford Repertory Company at 16. Since then she has performed in films and on stage in the United States and England. Both of Bloom's "OVATIONS!" performances are dedicated to "Friends of the Edison Theatre."

On Oct. 20, the Paul Winter Consort, which combines jazz, folk and classical styles with wolf, whale and eagle calls in a musical celebration of the natural world, will perform its original compositions.

The consort has been at the leading edge of "nature music" since 1977 when Winter and his consort released "Common Ground," their first album to mix sounds from nature with

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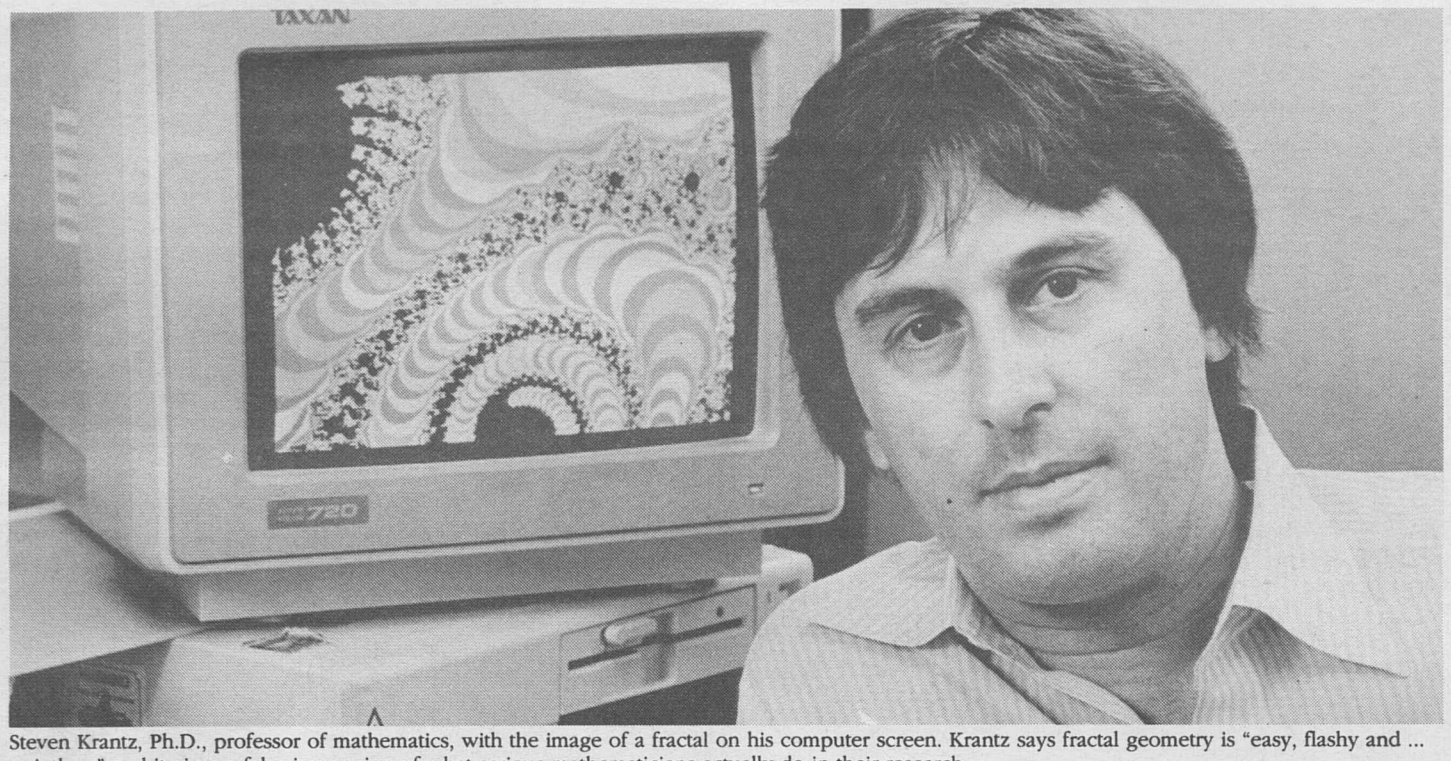

Steven Krantz, Ph.D., professor of mathematics, with the image of a fractal on his computer screen. Krantz says fractal geometry is "easy, flashy and ... pointless," and it gives a false impression of what serious mathematicians actually do in their research.

'Just pretty pictures'

'Love affair' with fractal geometry disturbs mathematician

It's what mathematicians call an iterative, or repetitive process.

Each fall for the past several years, Steven Krantz, Ph.D., professor of mathematics, has met incoming students who are more and more enthralled with the latest buzz word in mathematics: fractals.

"It hasn't gotten to the point yet where students want to major in fractals, but that could be right around the corner," Krantz says. "Pop science is fostering an awful lot of false notions about the real world of science and mathematics. The love affair with the fractal is disturbing to many mathematicians like myself who see too many people latching onto the notion that this stuff is serious mathematics."

Chances are your only brush with iterative mathematical functions comes April 15 with 1040 forms and you don't know a fractal from the TV kids' show "Fraggle Rock." So what, then, is a fractal, and why has it gotten everyone so excited?

In the '80s, fractal geometry presented to the science world the same visual forum that MTV gave to rock 'n' roll. Generically speaking, a fractal is a natural entity that repeats its geometrical patterns at infinitely smaller scales. This means that, unlike the pat dimensions of a football field, its shape is difficult to measure accurately. The forms abound in nature; a few familiar fractals are snowflakes, coastlines, mountains and trees.

The most commonly cited fractal is the coast of England. Measured on a world map, the English coast is one length, but if it is measured on a map of Britain, it's even longer because the British map reveals more detail. The more detailed the map, the more the coastline grows; the closer you look, the more it wiggles. When plotted geometrically on a computerized graph, the fractal details are rendered as kaleidoscopically florid as a Haight-Ashbury print, shimmering whorls of crystals, beads and sea horse tails that reflect the numbers they represent.

But is fractal geometry worthy mathematics? Krantz doesn't think so, not in a practical sense. And, angered by the misguided notions of his students, and "the public's perception of what mathematicians do these days," he decided to set the record straight.

He found his solution in a review of two books on fractal geometry in the fall 1989 issue of The Mathematical Intelligencer. Krantz took the burgeoning academic phenomenon to task, and his work has sent waves of controversy throughout the scientific community, which, in the past several years, has become enamored with fractals and the larger concept of "chaos," rapidly evolving theories of the '70s and '80s that explore the surprisingly ordered state of disordered systems.

The article makes bold assertions: that fractal geometry is, at best, a renegade form of mathematics, if not a pseudoscience; that public perception of mathematicians has become tarnished with the advent of the term; that the father of fractals, Benoit B. Mandelbrot, a researcher with IBM and adjunct professor of mathematical sciences at Yale University, did not discover the so-called "Mandelbrot set," one of the icons of fractal theory; and that, due to the heavy publicity fractal geometry has received, governmental funding for mathematics research is being directed away from such time-tested disciplines as algebraic geometry in favor of the "new kid on the block."

Krantz's claims sparked a widely noted article in the April issue of Scientific American that explored the history and impact of fractals and the Mandelbrot set, sometimes called "the most complex object in mathematics."

"My main difficulty with fractal geometry is that it is performed in an ad hoc manner," says Krantz, author of five books on mathematics. "The fractal gurus spew data out on a computer, then see what they come up with. This is entirely counter to the scientific method, which in mathematics is called the proof. There are no proofs in fractal theory, just pretty pictures."

There is a noticeable lack of precise definitions in fractal geometry as well as a dearth of theorems, Krantz contends.

"There is no universally accepted definition of the term 'fractal,'" he says. "One notable difference between fractal geometry and calculus, which revolutionized science in Newton's time, is that fractal geometry has not solved any problems. It is not even clear that it has created any new ones. The trouble with any subject that relies more on computer output than on theory is that one has to think of something to say about it. Often the things that are said about fractals are: 'this looks like a dog's head'; 'this could be the Loch Ness Monster'; 'this looks like a gopher's hole.' It seems to me that if a subject is to be called a science, then one should be able to say more about it than this."

The controversy over fractal geometry and theories of chaos goes deeper than mere academic jousting. The state of American education in science, mathematics and engineering education is precarious, by most estimates. And the educational pipeline — the K-12 school system, which hooks potential scientists early — appears to be drying up.

According to National Science Foundation figures, only 4.5 percent of graduating college seniors in 1990 will have bachelor's degrees in a science field. From this tiny pool, only 5 percent go on to earn Ph.D.'s in science, engineering or mathematics. In mathematics, for example, U.S. institutions awarded more than 1,000 Ph.D.'s in 1972, but only 750 in 1987. Of those, 350 were granted to foreign-born students.

While the fractal appeal is widespread, there have been few applications for them. Krantz notes that the only use of fractals of which he is aware is for the design of lunar surfaces in a George Lucas movie.

"Some people say I'm off base, that I'm cutting off my nose to spite my face because the fractal supporters are doing a great service to popularize science," Krantz says. "It is good that more people are becoming exposed to mathematics, but the ideas have to be put in perspective.

"In fractal geometry, you use some mathematics to generate a picture, then ask questions about the picture, which generates more pictures, then you ask more questions about the new pictures, and so on. You rarely, if ever, return to the original mathematics. This sort of process is not far removed from taking a dozen monkeys with a dozen typewriters and eventually, if they live long enough, getting them to write Hamlet.

"The fractal controversy really is part of a larger malaise that I see afflicting students today: The whole notion of the 'Quick Fix.' The fact that it takes a person a good 10 years of dedication and, often, deprivation, to become established in a discipline such as mathematics is not very attractive to young people anymore. Everyone wants gratification now. I see fractal geometry as the 'Quick Fix' in mathematics. It's easy, flashy and, as far as I can see, pointless."

Tony Fitzpatrick

License plates stamped with logo are now offered

Washington University faculty, staff, students and alumni living in Missouri are eligible for collegiate license plates stamped with the University's logo.

The plates, issued by the state of Missouri, require a special $25 gift to the University's "License to Learn" fund. A minimum of 450 gifts must be received before the Washington University plates will be authorized. All gifts will be returned if fewer than 450 apply.

This opportunity is offered as a service to Missouri members of the University community who wish to show their loyalty. A brochure containing a special gift form and "Emblem Use Authorization Statement" has been mailed to potential applicants.

Gifts must be received by Sept. 15, 1990. The validated authorization statement will be returned to each participant. This form, which is valid for use with application until June 1991, must accompany the application to the Missouri Department of Revenue for collegiate plates. The application also will require an additional $15 state fee.

The plates will be good until June 1991. If you have already paid license fees for this upcoming year, the state will apply your payment to the new plates. For more information about state requirements, call the state of Missouri hot line at (314) 751-4509. For a brochure, call (314) 889-5191.

Performing Arts holds auditions

Auditions for four Performing Arts Department productions will be held from 7-11 p.m. Sept. 4 and 5.

Two of the productions, "The Fifth Column" and "Flea in Her Ear," have large casts. "The Fifth Column" will be presented Oct. 19-21 and "Flea in Her Ear" will be performed Nov. 9-11 and 16-18.

The department also is auditioning actors for two one-act plays, "Danny and the Deep Blue Sea" and "Hello, Out There," to be performed Nov. 30 and Dec. 1 and 2.

All auditions will be held in the Mallinckrodt Center Drama Studio. For more information, call 889-5858.

RECORD

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Record (USPS 600-430; ISSN 1043-0520), Volume 15, Number 1/Aug. 30, 1990. Published weekly during the school year, except school holidays, monthly during June, July and August, by the Office of Public Affairs, Washington University, Box 1070, One Brookings Drive, St. Louis Mo. 63130. Second-class postage paid at St. Louis, Mo.
Address changes and corrections:
Postmaster and non-employees: Send address changes to: Record, Washington University, Box 1070, One Brookings Drive, St. Louis, Mo. 63130.
Hilltop Campus employees: Send to: Personnel Office, Washington University, Box 1184, One Brookings Drive, St. Louis, Mo. 63130.
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Edison Theatre — *continued from p. 1*

jazz compositions. In addition to touring extensively, the consort members have been artists-in-residence since 1980 at New York's Cathedral of St. John the Divine — the world's largest Gothic cathedral.

Ireland's National Theatre, the Abbey Theatre of Dublin, will present three performances on Oct. 26 and Oct. 27 of the extravagant comedy "The Playboy of the Western World," a drama written for the Abbey in 1908 by John Millington Synge.

This production, directed by Vincent Dowling, has broken attendance records at the Cork Opera House and played two triumphant seasons in Dublin before touring in Britain, the Far East and the United States.

On Jan. 18 and 19, Laura Dean Dancers and Musicians, a company distinguished by bold, innovative and "timeless" dances and pulsating live music, is sure to mesmerize audiences for the first performances of 1991.

Dean, who is known as the reinventor of spinning, "taps some of the most ancient, deep-seated movement impulses known to mankind ... a direct, powerful tug at our kinesthetic core ... and thus a visceral and immediate impact," says The Washington Post. This event is co-presented with Dance St. Louis.

On Feb. 1 and 2 "body musician" Keith Terry will present an evening called "Sound Proof." A jazz percussionist, Terry uses his body, raw vegetables, bouncing balls and electric fans to create music and rhythm. This event also is co-presented with Dance St. Louis.

"Perestroika" will come to Edison when the Moscow Studio Theatre performs on Feb. 22 and 23. The ensemble, which is making its U.S. debut, will perform two different Soviet plays, "My Big Land" on Feb. 22, and "The Same Old Story" on Feb. 23. Both full-scale productions will be in Russian translated simultaneously into English through headsets.

The Moscow Studio Theatre is a national treasure in the Soviet Union, much as the National Theatre is to Great Britain or The Acting Company is to the United States.

On March 1 versatile musician and respected musicologist Joshua Rifkin will perform with the Bach Ensemble, a renowned ensemble specializing in Baroque music on period instruments. On March 3 he will present an evening of Scott Joplin rags.

On March 22 and 23, The Acting Company, a New York-based internationally renowned repertory group, will present two evenings of Shakespeare. "Two Gentlemen of Verona," a spirited comedy about friendship, rivalry and romantic love, will be staged on March 22. "Romeo and Juliet," the most famous love story in the Western world, will be presented March 23. The company is the touring arm of the John F. Kennedy Center for the Performing Arts.

Lar Lubovitch Dance Company, a co-presentation by Edison's "OVATIONS!" series and Dance St. Louis, will take the stage April 26 and 27. Lubovitch, an internationally acclaimed choreographer and dancer, will honor Mozart's bicentennial by presenting works choreographed to the famed composer's music.

Lubovitch recently choreographed a full-length ice-dancing version of "Sleeping Beauty," which was broadcast in the United States and Great Britain. Lubovitch also did the musical staging for the Stephen Sondheim Broadway musical "Into the Woods," for which Lubovitch received a Tony nomination.

The "OVATIONS!" season's grand finale will be a new special family event by the Pickle Family Circus. The circus will present lively jugglers, acrobats, wire-walkers and inspired clowning, for which it is famous, in four performances on May 3, 4 and 5.

The San Francisco-based Pickle Family Circus was the first to create a one-ring intimate European style circus. A raucous band adds to the fun. "It's the kind of circus parents might want their kids to run away to," says NBC-TV journalist Jane Pauley.

Single tickets to "OVATIONS!" events are $18 for the general public; $14 for senior citizens and Washington University faculty and staff; and $9 for students. Subscription rates for between 6 and 9 shows are $16 per ticket for the general public; $12 for senior citizens and faculty and staff; and $8 per ticket for students. Subscriptions for between 10 and 14 shows are $14 per ticket for the general public; $10 per ticket for senior citizens and faculty and staff; and $7 per ticket for students.

Stage left

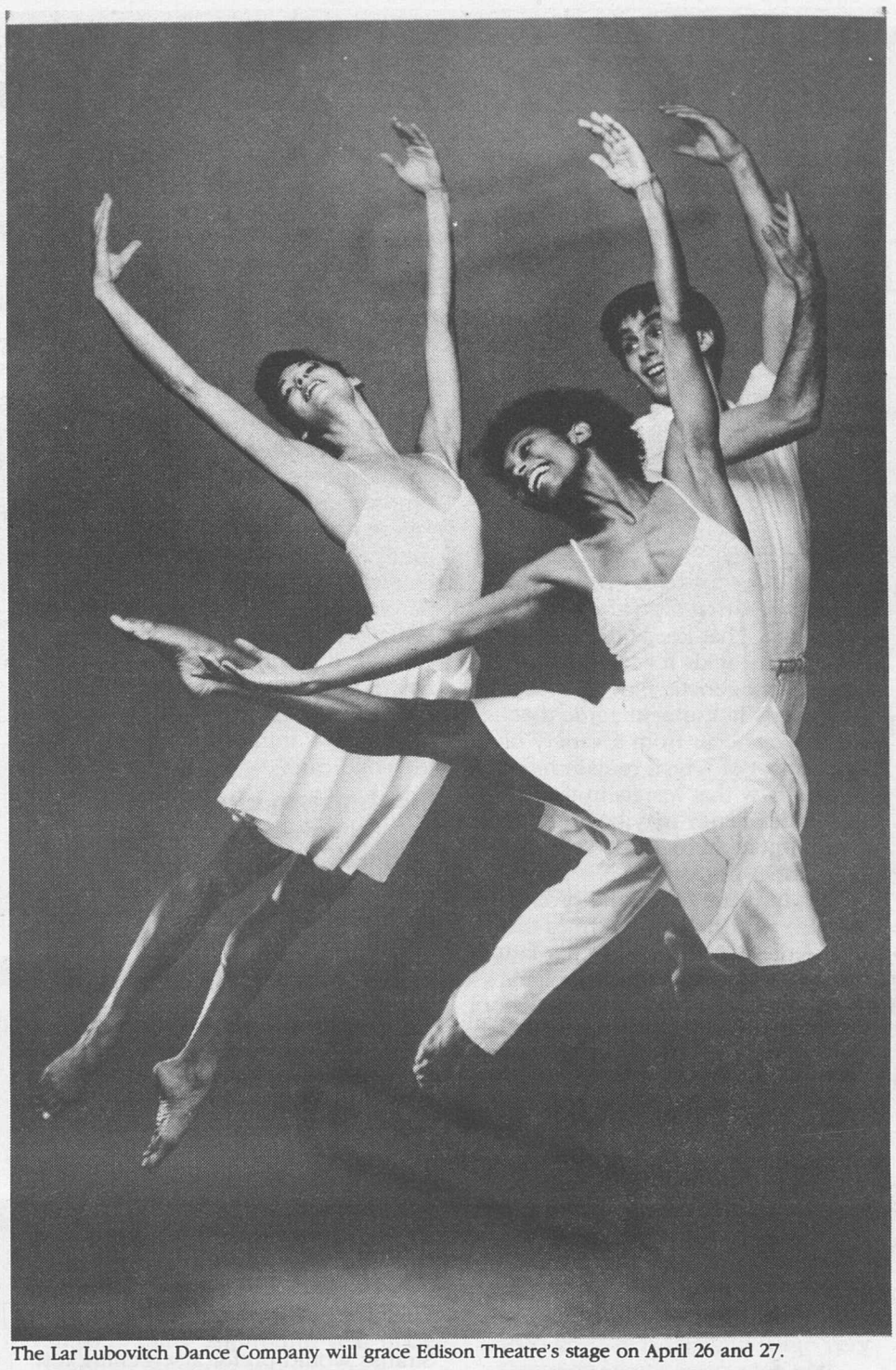
"OVATIONS!" also is premiering a new series called "Stage Left!" in the University's Drama Studio, Room 208 of Mallinckrodt Center.

"'Stage Left!' has both a directional and an artistic meaning," says Evy Warshawski, Edison Theatre managing director. "We originally chose the name because the studio is physically down the hall and to the left of the main stage. But the term also refers to the types of events we will offer, a little to the left of center, somewhat off-beat and non-traditional. It will be a nice complement to both the "OVATIONS!" series and the Performing Arts Department offerings."

The Leiden English Speaking Theatre, in a special engagement from the Netherlands, will present "Zoo Story," Edward Albee's provocative and powerful play, at 8 p.m. Sept. 6, 7 and 8 and at 2 p.m. Sept. 8.

The production will be directed by Henry I. Schvey, Ph.D., chair of the Performing Arts Department and Leiden group founder.

St. Louis native and world-renowned one-man performance artist Branislav Tomich will return to his alma mater on Oct. 12 and 13 to perform "Love Guts," which he describes as "film noir meets comedy and comes to life while a guy refuses to leave his apartment till the 'real thing' comes along." Recordings of Smokey Robinson, Luciano Pavarotti and Alice Faye play an important part in the performance, which, like much of Tomich's work, defies definition.



The Lar Lubovitch Dance Company will grace Edison Theatre's stage on April 26 and 27.

In the final event of the series, "Stage Left!" will present "Growing Up in Public — An Evening With Lucas Hoving." Hoving, one of the wittiest and best-loved modern dance patriarchs, will perform Nov. 2 and 3.

In his phenomenal career, Hoving has collaborated with such dance greats as Jose Limon and Martha Graham. The 78-year-old Hoving will dance his life story, in which he has been artist, teacher and inspiration to some of the most influential figures in dance history.

Single tickets for "Stage Left!" are $10; $8 for senior citizens and faculty and staff; and $6 for students. Subscription rates for all three events are $8 per ticket for general public; $7 per ticket for senior citizens and faculty and staff; and $5 per ticket for students.

The "ovations! for young people" series has expanded to seven events from four last year. The highly successful series, now in its third season, will feature one-hour performances specially geared to children ages 6-12. The audience will be encouraged to sing, clap, stomp and even howl along with the artists for an afternoon of good theatre and good fun.

The program will feature LadyGourd Sangoma on Sept. 22, Paul Winter Consort on Oct. 20, Keith Terry on Feb. 3 and Joshua Rifkin playing Scott Joplin rags on March 3.

Theatreworks USA will present "Play to Win: The Story of Jackie Robinson" on March 9. Theatreworks is a professional touring company that presented "The Velveteen Rabbit" last March.

The young people's program continues with the Lar Lubovitch Dance Company on April 28 and the Pickle Family Circus on May 4 and 5.

All "ovations! for young people" events are at 2 p.m. Single tickets are $7 per show. Subscription rates for between three and seven performances are $5 per ticket.

For more information or to subscribe to any of the above series, call 889-6543.

Woman's Club has half-price memberships

For the second consecutive year, the Woman's Club of Washington University is offering half-price memberships to women newly affiliated with the University.

The regular yearly membership fee for the 1990-91 academic year is $10; newcomers will pay $5. The Woman's Club is a social organization comprising women faculty and staff and wives of faculty and staff. The club sponsors cultural and educational functions including an annual Assembly Series lecture in Graham Chapel. Past speakers have included Pulitzer and Tony Award-winning playwright Wendy Wasserstein and sociologist and Washington alumna Pepper Schwartz. This year's lecture will be held in conjunction with the Black Arts and Sciences Festival and will feature actress Ruby Dee speaking at 11 a.m. on Oct. 31.

All members will receive the 1990-91 club yearbook in September. The yearbook contains a calendar of all club events in addition to members' addresses and phone numbers. Members also will receive monthly newsletters.

Elizabeth Danforth, wife of Chancellor William H. Danforth and Woman's Club member, will welcome new members at a social held at 7:30 p.m. Thursday, Sept. 27, at University House, 6420 Forsyth Blvd. W. Davis van Bakergem, director of the Urban Research and Design Center at the School of Architecture, will speak on "Architectural and Urban Design — a Tradition on the Washington University Campus."

For more information, call Magdalin Szabo, president, at 721-3147, or Jill Hill, membership chair, at 962-4441.

MEDICAL RECORD

Faulty gene

Researchers identify one cause for Sudden Infant Death Syndrome

Sudden infant death syndrome (SIDS) claims the lives of 7,000 babies annually in the United States and has frustrated a 40-year effort to stop it. Now, the first biochemical evidence of one cause for SIDS is in, and it implicates a flaw in how genetic instructions are decoded.

Researchers believe the misinterpretation results in a faulty enzyme that can't do its job of converting fatty acids into energy. Raw materials subsequently build up to toxic levels and, too often, an affected infant succumbs to a combination of fuel starvation and self-poisoning. Prevention of this form of SIDS may be as simple as insuring regular, frequent food intake. That keeps the body from needing fatty acids for fuel and sidesteps the genetic flaw.

Experts in the field agree that SIDS deaths occur from a variety of causes, most of which remain mysterious. The flaw that results in the enzyme deficiency may be at the root of only 5 percent to 10 percent of the total number of deaths.

But in those cases, the problem is with "one of the three enzymes that catalyze the first step in turning fatty acids into fuel for energy," explains Arnold W. Strauss, M.D., of the School of Medicine. "Ten years ago, a Danish group recognized a deficient enzyme — called MCAD — in some cases of SIDS," he says. Research at Yale later tracked the gene responsible for the enzyme to its location on chromosome one. Now, Strauss' lab has cloned the gene, determined its precise composition and clarified its link to fatty acid metabolism.

In less severe cases, infants sometimes arrive at emergency rooms with symptoms like those of Reye's syndrome: low blood sugar, liver failure and vomiting.

Strauss, a professor of pediatrics and biochemistry, proposes this scenario for MCAD-deficient SIDS: Usually babies producing a faulty enzyme do fine. They get their energy from glucose and glycogen, and the deficiency remains silent. But, if for some reason — illness, simple colic or pure accident — an affected infant doesn't eat for about 15 hours, trouble occurs.

"That's the threshold," Strauss says. He explains that sugars provide a human's fuel for only four or five hours, after which the body shifts smoothly to fatty acids as its main source of energy. But if the changeover is impaired by a faulty enzyme, energy gradually becomes unavailable. The first organs to fail are the biggest energy users: the heart, the brain and the liver.

The lack of enough fuel alone probably won't kill as rapidly as SIDS strikes, Strauss says. He thinks that, concurrently, unused fatty acids accumulate along with carnitine, a naturally occurring amino acid that binds to and carries fatty acids into and out of the mitochondria — the cell structures responsible for generating energy. Those accumulations have a poisonous effect on the infant's system. Describing the buildup, Strauss says, "The elements are highly toxic; if you inject carnitine bound to a fatty acid into a heart muscle, it stops immediately." Strauss presented his theory at the international symposium, "Human Inherited Defects in Biological Research," held in late April in Denmark.

In less severe cases, infants sometimes arrive at emergency rooms with symptoms like those of Reye's syndrome: low blood sugar, liver failure and vomiting. A quick, intravenous dose of sugar, Strauss says, is the medicine they need. Terrifying for parents, such a non-lethal event might actually be a blessing in disguise because it identifies a youngster at risk. Further trouble can be avoided by guaranteeing regular food intake or, at worst, intravenous sugar when the child can't eat, Strauss says.

Mechanism elusive

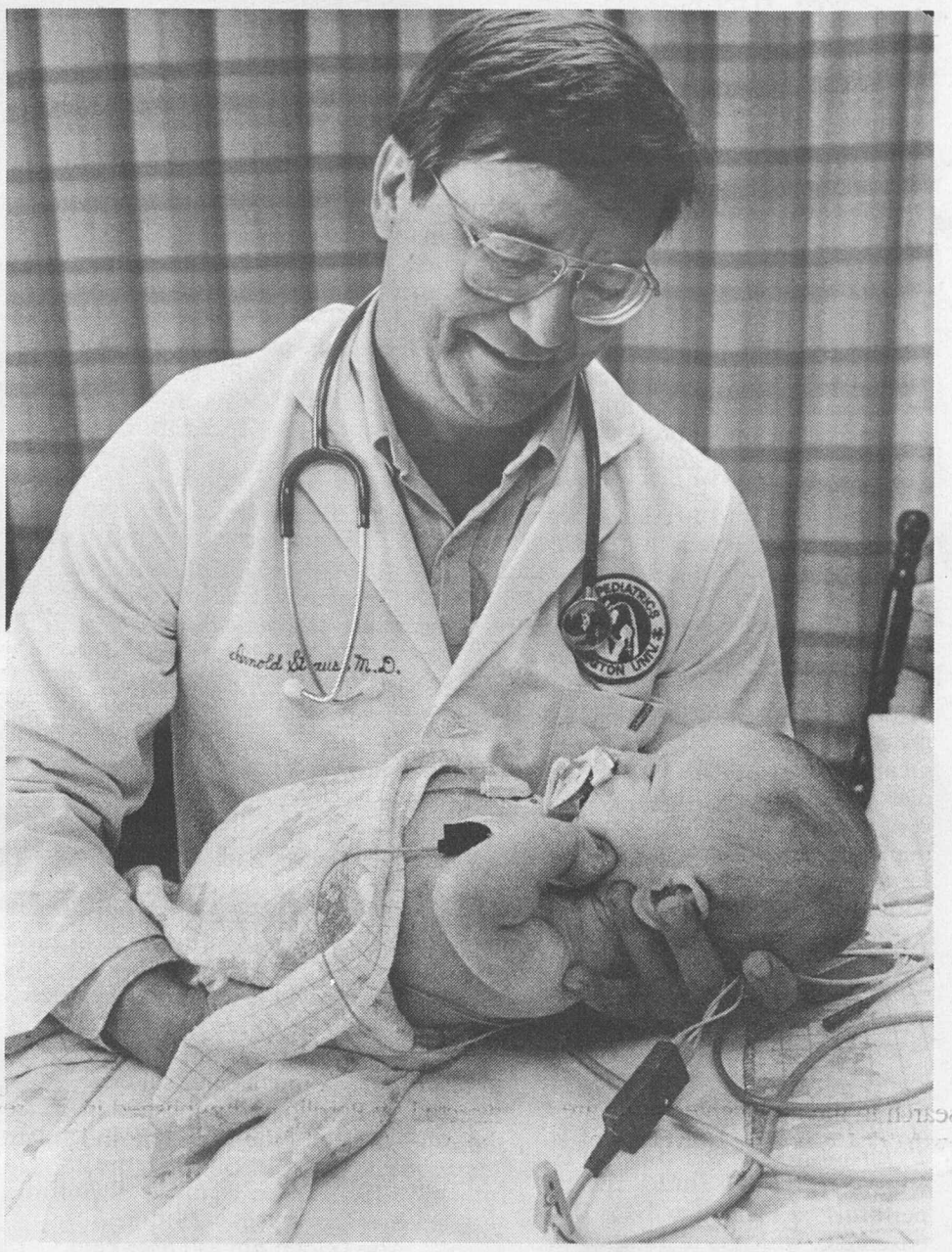
Otherwise, identifying the syndrome is problematic. William J. Rhead, M.D., Ph.D., professor of pediatrics at the University of Iowa College of Medicine, oversees one of only about five laboratories in the nation prepared to isolate MCAD deficiency. "It's a time-consuming, painstaking procedure," he says, "not a candidate for broad-based neonatal screening at this time, though that would be nice."

"MCAD deficiency occurs in about one of every 5,000 children, so it's not uncommon, says Daniel P. Kelly, M.D., an instructor of medicine at Washington University and one of Strauss' collaborators. When a child is identified as MCAD-deficient, family members are screened, but Kelly and Strauss would prefer a screening test that is more readily available. That will require uncovering the precise genetic mechanism by which the faulty enzyme occurs.

However, that mechanism is complicated and elusive. The gene that codes for MCAD does not appear to be the culprit in this case. "In many inherited enzyme deficiencies," says Strauss, "a mutation on the gene stops the protein's production early. The resulting unstable protein degrades before it can work. Here, the problem is something else. The gene in deficient patients and in normal controls appears to be identical."

So far, the investigators have traced the trouble to the process by which precursor RNA is "spliced" to become messenger RNA. The procedure, simply put, goes like this: The gene, made up of informational islands, or exons, within the DNA molecule is copied first into precursor RNA via a process called transcription. Most genetic flaws occur in the gene and are passed along into the first copy. The precursor RNA is then "spliced." In this step, only the informational bits are preserved; non-instructive elements (introns) are eliminated. The result is a more compact version of the recipe for a protein, called messenger RNA. Finally, the RNA leaves the cell nucleus with the instructions for making the protein. In this case, the protein is the enzyme MCAD.

By working backward from MCAD to its garbled messenger RNA and then to its normal precursor RNA, the researchers have found the focus of the problem. The deficiencies that Strauss reports occur as a result of one or a combination of 15 different problems in splicing. The instructions get confused, and the product is "a mess," Strauss says.



Arnold W. Strauss, M.D., holds one of his patients in the Pediatric Intensive Care Unit at St. Louis Children's Hospital.

New class of disorders

For the moment, MCAD deficiency stands as the lone example of what may be a new class of genetic disorders — those attributable not to the genes themselves but to the splicing process that is still poorly understood, though undoubtedly controlled by other genes. Kelly also points out that though there is clearly a splicing problem involved, something about this gene also predisposes it to splicing trouble, because other protein recipes in MCAD-deficient patients are spliced properly.

The MCAD deficiency is the first of what will probably be many causes for the syndrome called SIDS.

The 15 splicing errors recorded have all been seen in the enzymes of one family: a Dutch father, the two children he lost to SIDS and two surviving siblings. Their cultured skin cells provide the raw material for much of the research. Each error produces a different form of the enzyme; the degree of their effectiveness varies with the severity of the flaw.

In about half of the altered proteins, the affected regions include that portion of the molecule called the transit peptide (proteins are strings of peptides), the element responsible for gaining passage through the membrane into the mitochondria where the enzyme works. Kelly says errors in the transit-peptide portion prevent the enzyme from working at all, because it can't get to the job site. Splicing errors elsewhere only reduce the enzyme's efficiency.

Current research is directed at finding the source of the splicing problem while also seeking other possible causes. Is there a gene flaw not yet found? Why is this gene misspliced when others in the same patient are copied precisely? The suggestion is that among the many proteins that operate in the splicing process must be at least one that is gene-specific. "But that's a hunch on the frontiers of what we know," Kelly acknowledges. Autopsies of infants claimed by the deficiency show fatty infiltrations of the liver and abnormal mitochondria (perhaps as a result of working with strangely configured enzymes), nothing more.

The MCAD deficiency is the first of what will probably be many causes for the syndrome called SIDS, Rhead and Strauss agree. Rhead, whose Ph.D. dissertation 15 years ago dealt with SIDS, lauds the MCAD research as "a model of how science can and should be carried out," but adds, "except for this, we still don't know much more now than we did two decades ago."

Steve Kohler

$400,000 to fund Balfe's research on colorectal cancer

The National Cancer Institute has awarded a radiologist at the School of Medicine a $400,000 grant to assess the diagnostic effectiveness of new imaging techniques in primary and recurrent colorectal cancer.

Dennis M. Balfe, M.D., associate professor of radiology at the School of Medicine's Mallinckrodt Institute of Radiology, will lead a team of researchers to study methods of imaging colorectal cancer more efficiently.

"Colorectal cancers could be treated differently if we knew the extent of the disease," says Balfe. "Many times patients undergo radical surgery which could have been avoided had the extent of their disease been known. Therefore, by studying the various stages of colorectal cancer, we will be able to better determine the kind of treatment the patient will need."

Colorectal cancer is the most common cancer of the gastrointestinal tract, with approximately 140,000 new cases diagnosed annually.

Balfe, principal investigator for the St. Louis team of the multicenter study, is also investigating the spread of cancer from the colon to the liver, looking at the radiologic methods in staging the liver in colorectal cancers and evaluating the ability to do accurate follow-up.

Other institutions conducting research in the multicenter study are New York University, University of Michigan, Johns Hopkins University, and the University of Washington-Seattle.

Balfe, known for his work in gastrointestinal radiology, has published more than 50 articles and contributed to more than 15 book chapters.

Unrestricted grant is awarded to Ophthalmology

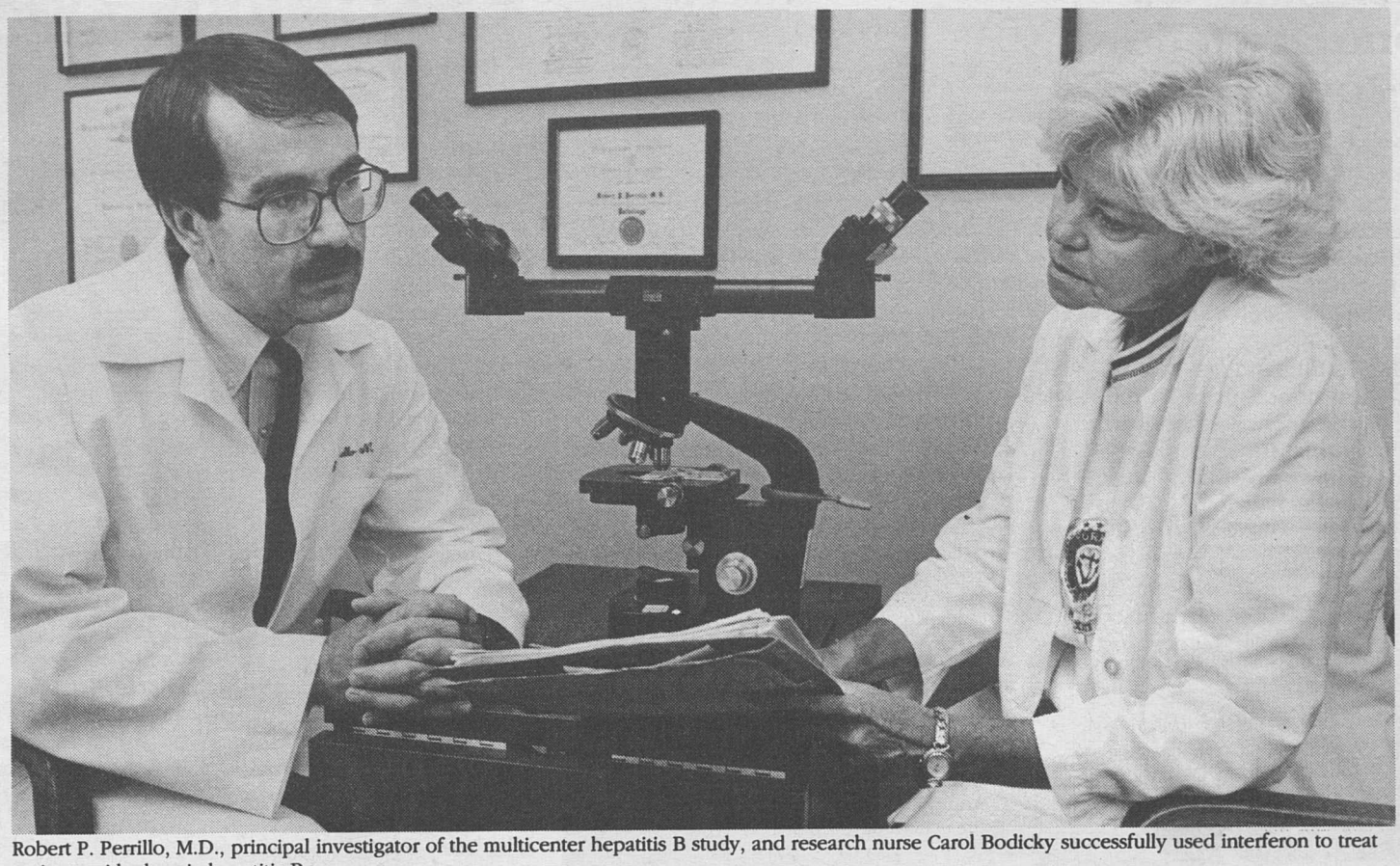
The Department of Ophthalmology and Visual Sciences at the School of Medicine has received an unrestricted grant of $50,000 from Research to Prevent Blindness (RPB), a voluntary organization committed to the financial support of eye research.

The award was announced by Henry J. Kaplan, M.D., professor and head of the Department of Ophthalmology and Visual Sciences.

"The unrestricted grant is very important to us," says Kaplan, "because it allows the department flexibility to provide support where it is most needed." He notes that RPB is one of the few organizations that provides unrestricted funds.

Washington University has one of the world's largest research programs devoted to ophthalmology and visual science. The department is known for its expertise in retinal neurobiology and in the past year has been expanding the research faculty to develop centers of expertise in immunology and molecular biology. Research projects include studies of glaucoma, retinal degeneration, crossed-eyes in children, amblyopia (impaired vision without a detectable lesion or disease of the eye), retina transplantation, and the ocular manifestations of diabetes and other systemic diseases.

During the past 29 years, the ophthalmology department has received $601,900 in RPB funds. RPB provides annual grants to 62 medical schools and is the world's leading voluntary organization in support of eye research.



Robert P. Perrillo, M.D., principal investigator of the multicenter hepatitis B study, and research nurse Carol Bodicky successfully used interferon to treat patients with chronic hepatitis B.

Interferon therapy cures hepatitis B in 11 patients

"I'm cured!" Janet Kiefhaber happily told reporters who recently interviewed her and physician Robert P. Perrillo, M.D., about her battle with chronic hepatitis B.

The interviews were conducted in response to a multicenter study directed by Perrillo and published in the Aug. 2 issue of the New England Journal of Medicine.

In the study, Perrillo and colleagues report curing 11 patients with chronic hepatitis B and inducing remission in 27 others who were treated with an intensive course of interferon therapy. Kiefhaber, a nurse from Arkansas, was a study participant who believes she contracted the virus from a patient before surgical gloves were mandatory. The virus is spread through blood to blood contact.

Chronic hepatitis B is a serious, debilitating, infectious liver disorder that predisposes to cirrhosis and can be fatal. There has previously been no cure for the disease. An estimated 1 million Americans are chronically infected with the hepatitis B virus and the risk of primary liver cancer is at least 100-fold greater in these individuals.

The multicenter study included trials at 12 research centers and is the first large, controlled study of its kind.

"We can cure people who might otherwise have a lifelong infection with serious consequences if we get to them early enough," says Perrillo, an associate professor of medicine at the School of Medicine and director of gastroenterology at the Veterans Administration Medical Center in St. Louis.

Most cures occurred in patients who had hepatitis B for two years or less. Response was determined by measuring the amount of replicating virus in a patient's blood. "Cure" was defined as the complete disappearance of virus from the blood. Patients in "remission" are those in whom the virus became inactive and symptoms disappeared. Tests of viral replication were made throughout the treatment period and at one, three and six months after treatment.

All patients in the three-year-long study had tested positive for the hepatitis B virus at least six months before entering the study and suffered chronic liver disease. One fourth of the patients received six weeks of prednisone followed by five million units of interferon alfa-2b daily for 16 weeks; one fourth received six weeks of oral placebo followed by 16 weeks of five million units of interferon alfa-2b daily; one fourth received six weeks of placebo followed by 16 weeks of interferon alfa-2b in a dose of one million units daily; and the remaining patients did not receive any treatment.

Compared with the untreated group, a significant number of those who received five million units of interferon alfa-2b showed a lack of the replicating forms of hepatitis B virus. Disappearance of viral replication was observed in 36 percent of patients treated with prednisone and interferon alfa-2b; in 37 percent of those treated with five million units of interferon alone; in 17 percent of those treated with one million units of interferon; and seven percent of the untreated control group. There was a clear trend for patients with mild abnormalities in their liver function tests to do better if they received prednisone as part of their treatment (44 percent remission versus 17 percent).

In addition, more than 60 percent of patients taking the larger dose showed a significant improvement in liver disease as measured by liver biopsy. Of those who achieved a remission with treatment, approximately 30 percent lost all evidence of the infection in the blood and were considered cured.

"If you've had your hepatitis less than two years, your chances of getting rid of the disease are much better," Perrillo says. "We believe this indicates that early in the infection the virus does not integrate its genetic material into the host cell genetic material. But if enough time goes by, it does, at which point total eradication of the virus may be impossible."

The study reports fatigue as the most common side effect associated with interferon therapy. Other flu-like symptoms that occurred included fever, headache and muscle pain, but these improved as therapy continued.

At this time, interferon is not federally licensed to be used in the treatment of hepatitis. Perrillo says the encouraging study results may hasten federal approval.

"We have made a significant step, but long-term follow-up will be necessary to determine the frequency of disease relapse and long-range benefits," Perrillo says. "I think we can feel confident in telling patients that our rate of successful treatment with interferon therapy is about 50 percent overall."

For Kiefhaber, the research has cured her of a disease that was slowly killing her. She is now back at work as a nurse and has been vaccinated to prevent a recurrence of hepatitis.

The research was supported, in part, by grants from the Public Health Service and the National Institutes of Health. Interferon was provided by Schering-Plough Corp., New Jersey.

Street party will kick off no-smoking policy

Medical center employees and staff are invited to a lunchtime street party Sept. 10 to celebrate the first day of the medical center's smoke-free policy.

The Breath Easy Celebration will be held from 11 a.m. to 2 p.m. on Audubon Avenue in front of the Clinical Sciences Research Building. The party is open to employees at the School of Medicine, Barnes, Jewish and St. Louis Children's hospitals.

There will be free food, games, prizes and T-shirts, along with a dunking booth and other entertaining and informational activities. Aerobic dancers from the Maryland Fitness Center will perform, and several local television and radio personalities will participate in various activities.

"We are celebrating the culmination of the joint efforts of the medical center institutions to provide a smoke-free environment for employees and patients," says Carol Moser, member of the medical center's smoke-free committee, which organized the event.

In conjunction with the new smoking policy, which prohibits smoking in medical center buildings, on-site smoking cessation classes are being offered. Two classes are running now and others will be held as needed. Designated outside smoking areas at the School of Medicine will be announced.

For more information about smoking cessation classes or location of designated smoking areas, contact Carole Moser, 362-6824.

MEDICAL RECORD

Robins named honorary fellow of Royal College

Psychiatric epidemiologist Lee N. Robins, Ph.D., of the School of Medicine, has been named an honorary fellow of the Royal College of Psychiatrists.

Robins was among five scientists worldwide to receive the citation at the Royal College's Annual General Meeting in England last month. It is the highest honor given by the Royal College, the agency authorized to certify psychiatrists in the United Kingdom and publish the British Journal of Psychiatry.

Robins, professor of sociology in the department of psychiatry, is internationally recognized as a leader in studies of behavioral disorders in children. She is the author of Deviant Children Grown Up: A Sociological and Psychiatric Study of Sociopathic Personality, a longitudinal study published in 1974 which is considered a model for more recent research.


Lee N. Robins

Much of Robins' work has centered on the effects of drug use, alcoholism and other familial disorders on child development. Most recently, her work has dealt with Vietnam veterans and the epidemiology of adult psychiatric disorders. Robins also developed the DIS (Diagnostic Interview Schedule), a tool for diagnosing specific mental disorders in large populations.

Robins directs a training program in psychiatric epidemiology and biostatistics and is on the editorial boards of numerous professional publications, including Social Psychiatry, Journal of Child Psychology and Psychiatry, Psychological Medicine and the American Journal of Public Health. She is editor for North America of a new journal, Methods in Psychiatric Research. In addition, she is a fellow of the American Psychopathological Association, the Institute of Medicine and the American College of Epidemiology.

Robins came to Washington University in 1954. She received her undergraduate education at Radcliffe College and her Ph.D. from Harvard University and Radcliffe.

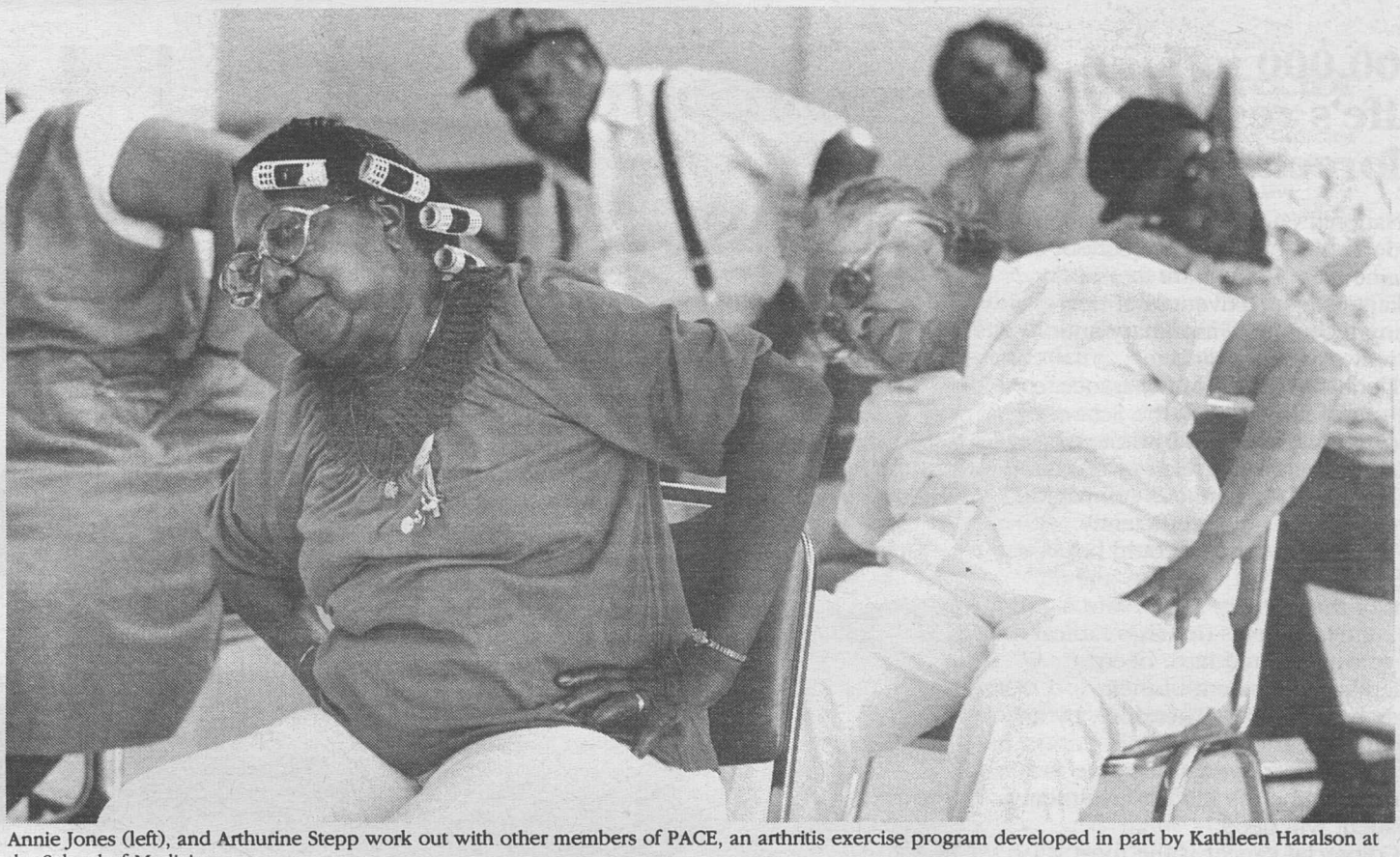
Scholarship fund set up in memory of instructor's child

Christine Feely, Ph.D., instructor of occupational therapy in the School of Medicine's Program in Occupational Therapy, and her husband, Kevin, have set up a student scholarship fund in memory of their son who died in June.

Six-year-old Brendan Feely was killed when a tree limb fell on a parked van where he was seated. He was on his way home from day camp.

The memorial, The Brendan Feely Minority Student Scholarship, will benefit students in the occupational therapy program.

Donations may be sent to: The Brendan Feely Minority Student Scholarship, Program in Occupational Therapy, Box 8066, 4567 Scott Ave., St. Louis 63110.


Annie Jones (left), and Arthurine Stepp work out with other members of PACE, an arthritis exercise program developed in part by Kathleen Haralson at the School of Medicine.

Arthritis exercise classes benefit inner-city residents

Odessa Delfers has complained of being a little stiff lately, but she fights it off by picking up the PACE.

Delfers, 84, shoves aside her aluminum walker so she can march in place from her chair, roll her fingers into fists and turn her head from side to side — movements that qualify as a hefty workout for someone stooped with age and arthritis.

But Delfers doesn't mind. In fact, she looks forward to these regular workouts which spark her energy and enthusiasm, and keep her moving. The program Delfers participates in is called PACE (People with Arthritis Can Exercise). It was developed four years ago specifically for those who suffer the stiffness and pain of arthritis.

Kathleen Haralson, a physical therapist and associate director of the Washington University School of Medicine Regional Arthritis Center, co-authored the program and has been instrumental in launching it locally. She has established one program in the inner city and wants to set up more. Haralson assists for several weeks to get the program going, then leaves it in the hands of those who need it most, such as the residents at the St. Louis Housing Authority, where Delfers resides.

Every Monday and Friday morning Delfers and nine other men and women gather in the housing authority senior center on Kingsbury to spend about 20 minutes exercising with Haralson. Though theirs is the first inner city program, others exist in rural areas around St. Louis. Haralson chose this site because it was accessible for residents and because the program was sorely needed.

"These are people who fatigue just getting to class, they get little activity," Haralson said of the residents she works with. "But they learn and follow well, and I think we're beginning to see improvements in stamina."

Elmira Batchelor, a registered nurse and health coordinator for the housing authority, was instrumental in setting up the program and says residents are eager to participate.

"They look forward to it," Batchelor said of the participants, who range in age from 65 to 85. "All those here are very cooperative and want to participate. They tell me they feel better because of the program."

Willie Jeffries, 72, and Sadie Wilson, 67, whose hands have been most affected by the disease, say they look forward to the class and that the activity eases their pain.

Arthurine Estepp, 80, who has had arthritis for about 20 years, says the program motivated her so much she now exercises in her apartment.

"I have discovered exercise makes me feel better," Estepp said, clutching her knees, which are prone to arthritis pain. "I like exercising with a group, too."

Few of those taking part have severe arthritis, most are afflicted with mild to moderate symptoms, Haralson said. Still, she issues verbal cautions every step of the way to make sure they don't hurt themselves as they twist, turn and stretch to improve flexibility, mobility, strength and conditioning.

"I ask them if they feel better because of the class, or if it hurts or hurts more," she said. "This is a comprehensive program in terms of the areas of the body we work, but it's up to them how much or how hard (they work). We normally do three to five repetitions with each exercise."

She says one of the chief advantages to such a program is the camaraderie that develops among the people.

"I don't expect significant changes, but a subtle change can mean a big psychological change," Haralson said. "If they enjoy the exercise and group dynamics, they'll keep up with it."

The state-funded arthritis center is directed by John P. Atkinson, M.D., professor of medicine and molecular microbiology, and provides public and professional outreach programs on arthritis.

Kleila Carlson

Researchers still need volunteers for prostate disease study

Researchers are still seeking men over the age of 55 who have no history of prostate cancer for a promising study to evaluate a new blood screening test for prostate disease.

Currently 3,500 volunteers are participating in the project; an additional 3,500 are needed.

The study is being conducted at Barnes Hospital, Jewish Hospital and the School of Medicine. It is directed by William J. Catalona, M.D., chief of the Division of Urologic Surgery. Funding is provided by Hybritech, Inc., of San Diego.

The blood test, which examines the level of prostate specific antigen, may be the most promising screening test yet developed for prostate cancer, Catalona says. Virtually all males have a low level of prostate specific antigen, he explains. This antigen protein is formed in the prostate gland and may become mildly elevated in men who have benign enlargement of the prostate gland, urinary tract infections or chronic inflammation of the gland. Elevated levels also may be present in early stage prostate cancer.

In 1989, prostate cancer surpassed lung cancer as the most common cancer diagnosed in American men over 50. Unfortunately, by the time the diagnosis is made, more than one-third of men have advanced cancer, according to Catalona.

"The blood test now appears to be potentially the best screening method for detecting prostate cancer at an early stage, when the results of treatment are more favorable," he comments. "If this study demonstrates that the test is useful, society will realize substantial benefits."

For the study, Catalona needs males aged 55-75 who have no diagnosis of prostate cancer. Participants will have approximately one-half ounce of blood drawn from an arm vein every six months for five years. The blood test will be performed free of charge. Participants also will be required to fill out a brief, yearly questionnaire asking whether a diagnosis of prostate cancer has been made since the last blood test.

Participants whose antigen levels are elevated will be advised to undergo a rectal examination and an ultrasound scan of the prostate gland. If any abnormalities are found on either of these examinations, the patients will be advised to undergo a needle biopsy of the prostate gland.

"There is an urgent need for earlier detection of prostate cancer," Catalona comments. "Earlier detection would increase the cure rate and improve the quality of life of patients with prostate cancer."

For more information, call Barnes Hospital Physician Referral, 362-8677.

PERSONNEL NEWS

Health insurance annual open enrollment begins in October

The annual open enrollment for health insurance will be conducted in October. During the open enrollment period, you may change your Washington University health insurance without coverage interruption. If you are not participating under one of the University's health insurance plans, you may enroll during the open enrollment period.

The following rules apply if enrollment for health insurance is for the first time. You may enroll in one of our Health Maintenance Organizations (HMO's), Partners or Group Health Plan. You also may enroll in the new major medical plan. Both the HMO's and the major medical plan will begin coverage effective Dec. 1, 1990.

However, to enroll in Blue Cross-Blue Shield, you must complete a health statement. Coverage will begin on the first of the month following the Blue Cross-Blue Shield approval date. Blue Cross-Blue Shield may also impose a one-year pre-existing condition limitation. These rules also apply if you are enrolling your dependents for the first time in Blue Cross-Blue Shield.

New rates and any plan changes will be published at the time of open enrollment.

Dental insurance is included in open enrollment. Employees (and dependents) not previously enrolled may enroll subject to a three-month waiting period for coverage. There also is a two-year waiting period for certain major work such as orthodontic or periodontic procedures.

Major medical plan

Arrangements are being finalized with PAI (a Blue Cross-Blue Shield subsidiary) to carry our major medical plan. The three-month $300 deductible and three-year benefit period will be converted to a calendar-year deductible and calendar-year benefit period. All current enrollees in the major medical plan will be eligible automatically to join this new major medical plan.

We also will be introducing a new Blue Cross-Blue Shield plan called EXCEL. We will continue to offer the current plan, which is now referred to as the PLUS plan. The PLUS plan contains a Preferred Provider Network of about 2,000 physicians and 33 area hospitals. If you seek health care with one of these physicians or hospitals, all charges will be paid by Blue Cross-Blue Shield, except for a $10 office charge. Charges by physicians and hospitals that are NOT in the network will be paid at 80 percent of customary charges after a $200 deductible.

The EXCEL plan also will contain this same physician and hospital network. However, you will be subject to a $200 deductible even within the Preferred Network. Under the EXCEL plan, Blue Cross-Blue Shield will cover charges according to the following schedule: 90 percent coverage when using the Preferred Provider Network; 80 percent for using physicians or hospitals outside the St. Louis area and thus outside of the Preferred Provider Network; and 70 percent for using physicians or hospitals in the St. Louis area but outside the Preferred Provider Network.

While the EXCEL plan will not provide the same benefits level as the PLUS plan, the premiums will be less.

New dependent reminder

Participants in any University health plan must notify the Personnel Office within 31 days of the addition of a member to your family, whether through birth, adoption or marriage. Failure to meet this 31-day requirement will subject the new dependent to a health statement requirement and could result in the dependent not receiving coverage.

Participants or beneficiaries must also notify the Personnel Office within 60 days after a divorce, an employee's death or a child reaching maximum age on the health plans. This will entitle participants or their beneficiaries to continue under any group health plan. Failure to notify the Personnel Office within the 60-day time limit prohibits continuing coverage.

The maximum dependent child age for Blue Cross-Blue Shield, Partners and Group Health Plan is 23. The maximum age for the major medical plan and the dental plan is 19, or 23 if a full-time student.

Professional job searches are under way

Washington University is conducting searches to fill professional positions on the Hilltop and Medical School campuses.

Director of Annual Giving

Washington University seeks a skilled and experienced individual to serve as director of Annual Giving for the School of Medicine. Candidates must have a college or university degree, three years development experience and the ability to use a computerized data base in implementing goals. Salary is commensurate with qualifications and experience.

Application deadline is Sept. 30, 1990. Send resume and salary requirements to: Ruth C. Dickinson, Assistant Vice Chancellor, Medical Alumni and Development Programs, Washington University School of Medicine, Campus Box 8049, 660 South Euclid, St. Louis, MO 63110.

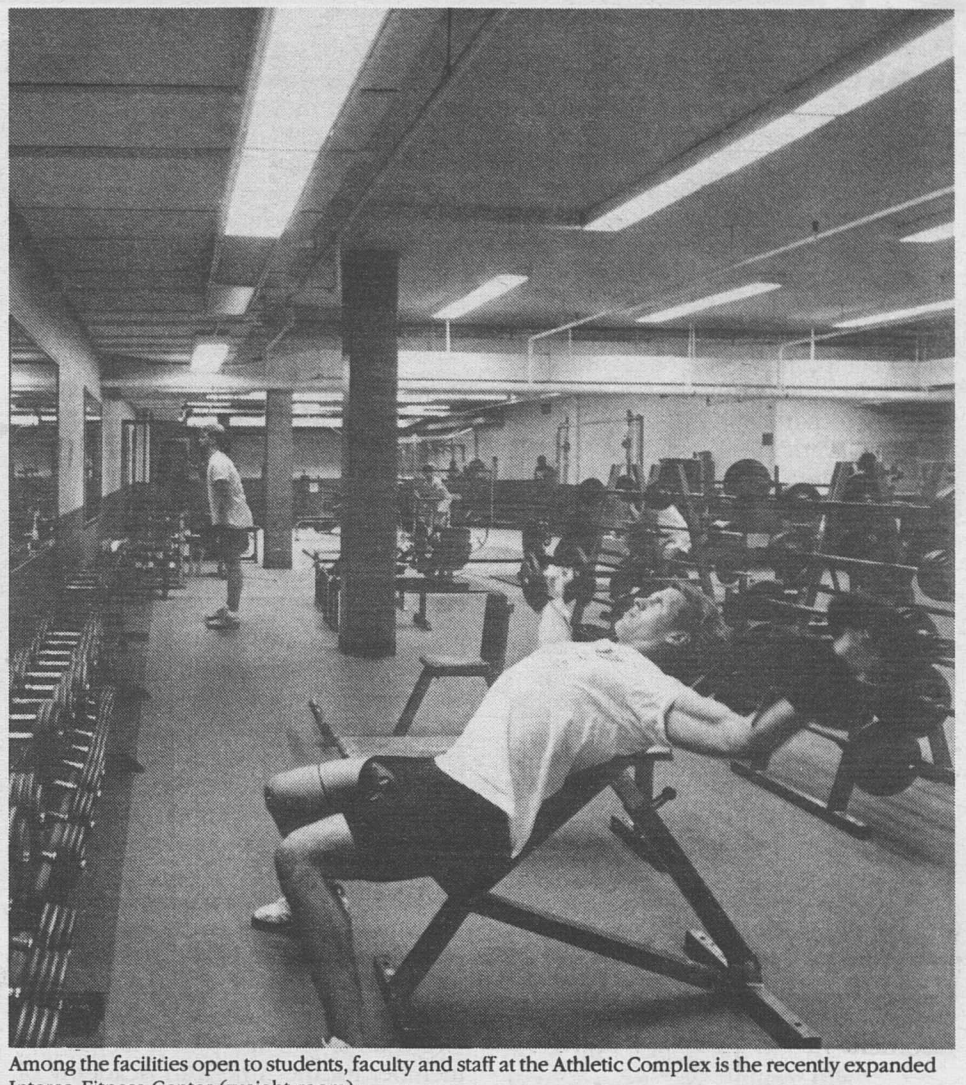
Director of Medical Development

Washington University seeks a skilled and experienced individual to serve as director of medical development in the development office. Candidates must have a college or university degree and experience in development or related work. Salary is commensurate with qualifications and experience.

Send resume and salary requirements to: Ruth C. Dickinson, Assistant Vice Chancellor, Medical Alumni and Development Programs, Washington University School of Medicine, Campus Box 8049, 660 South Euclid, St. Louis, MO 63130.

In addition to the professional searches, qualified candidates are sought to fill the following Hilltop Campus positions: accounting/bookkeeping, 4 positions; administrative assistant, 3 positions; associate director, 1 position; clerical, 6 positions; coordinator, 3 positions; director, 1 position; engineering, 2 positions; entry-level, 4 positions; laboratory, 7 positions; librarian, 3 positions; library assistant, 6 positions; part-time, 7 positions; sales/retail, 4 positions; and secretarial/word processing, 6 positions.

Information about these and other positions is available through the Hilltop Campus Personnel Office, Room 126, North Brookings, 889-5990, or the Medical Campus Personnel Office, 1130 Hampton Ave., 726-7500.



Among the facilities open to students, faculty and staff at the Athletic Complex is the recently expanded Interco Fitness Center (weight room).

From swimming to squash

Athletic Complex offers recreational variety to students, faculty and staff

Washington University students, faculty and staff with valid I.D.'s are eligible to use the Athletic Complex. All full-time day school students, faculty and staff, as well as professors emeriti and retired staff, are not charged for this privilege. Other eligible users such as families of faculty and staff, part-time students, spouses of day school students, evening school students and alumni must purchase a membership card.

Faculty, staff and full-time day school students are eligible to purchase family memberships for immediate family members such as a spouse or children residing at the same address. The family membership fee is $45 for the first family member and $5 for each additional member.

Membership cards must be obtained for each eligible family member. I.D. cards, Social Security numbers and proof of age and residence for spouses and children must be presented at the membership office before family memberships are sold. Membership cards must be presented for admission to the Athletic Complex.

Children under 14 may use the facilities provided they are accompanied and supervised by a parent or legal guardian or are enrolled in a departmental program.

University students, faculty and staff are permitted at designated times to bring one guest per day to the Athletic Complex. The sponsor must accompany the guest and is responsible for the guest's conduct. A guest pass, valid for one visit, is required. The fee is $3. Guest passes may be purchased from 8:30 a.m. to 4:30 p.m., Monday through Friday, at the athletic department's main office or at the medical school Cashier's Office from 9 a.m. to 4 p.m., Monday through Friday. In order to purchase a guest pass, you must have a valid University I.D. card.

The following hours are in effect during the academic year. Hours are subject to change. For more information on scheduled activities or building hours call the 24-hour information hot line at 889-4705.

Athletic Complex: Monday through Friday, 6:45 a.m.-10 p.m.; Saturday, 10 a.m.-9 p.m.; and Sunday, noon-9 p.m.;

Main Office: Monday through Friday, 8:30 a.m.-5 p.m.;

Intramural Office: Monday through Friday, 9 a.m.-6 p.m.;

Tao Tennis Office: Monday through Sunday, 7 a.m.-9 p.m.;

Equipment Room: Monday through Sunday, open regular building hours;

Bushyhead Track: Monday through Sunday, 7 a.m.-Dusk;

Millstone Pool: (for recreational swim): Monday through Friday, 7-8:30 a.m., *11:30 a.m.-1:15 p.m., 7-9 p.m.; Saturday and Sunday, 2-5 p.m. *Hours to be extended in October, November, December, February, March and April

Grimm Racquetball/Handball/Squash courts: Monday through Friday, 7 a.m.-9:45 p.m.; Saturday 10 a.m.- 8:45 p.m.; Sunday, noon-8:45 p.m.; and

Interco Fitness Center (weight room): Monday through Friday, 7 a.m.-9 p.m.; Saturday, 10 a.m.-8 p.m.; Sunday, noon-8 p.m.

Activity areas close 15 minutes before the Athletic Complex closes. Facilities are available for recreation when not scheduled for departmental programs.

Hours during University holidays, semester breaks, final exams and the summer will be adjusted and posted at the entrance of the Athletic Complex.

Personnel News

Personnel News appears monthly in the Record and is prepared by Gloria W. White, vice chancellor for personnel and affirmative action, and other members of the Personnel Office. Personnel News is designed to keep Washington University employees and their families informed of the benefits and opportunities available at the University.

NOTABLES

Harish C. Agrawal, Ph.D., professor of pediatrics and neurology, presented three papers at the national-international meeting of the American Society of Neurochemistry. His topics were phosphorylation and acylation of CNPase and phosphorylation of myelin-associated glycoprotein.

Edwin C. Andrews, assistant professor of sculpture, is one of six artists from across the country who were selected to participate in the Socrates Sculpture Park's 1990 outdoor sculpture exhibition. The Socrates Sculpture Park is a 4 1/2-acre waterfront park on the East River in New York City. The 1990 outdoor sculpture program will end with an exhibition of site-specific sculptures. The exhibition opens in October.

Leonard Berg, M.D., professor of neurology and director of the Alzheimer's Disease Research Center, was a presenter at the 23rd annual Recent Advances in Neurology continuing medical education course. He spoke on "Alzheimer's Disease: Update and Ethical Issues in Advanced Brain Disease." The program covered both current concepts and recent advances in the pathogenesis and management of neurologic disorders.

Isaac Boniuk, M.D., associate professor of clinical ophthalmology, was a lecturer at a recent meeting of the Hawaiian Ophthalmologic Society. He spoke on the management of diabetic retinopathy and vitreoretinal surgical techniques.

Dean Burgess, M.D., and **R. Joseph Olk**, M.D., associate professors of clinical ophthalmology, were course directors for the Midwinter Laser Course and Fluorescein Angiography Workshop earlier this year. Other participants from the department included: **Neva P. Arribas**, M.D., **Isaac Boniuk**, M.D., **M. Gilbert Grand**, M.D., associate professors of clinical ophthalmology; **Henry J. Kaplan**, M.D., professor and head of the department of ophthalmology; and **Matthew A. Thomas**, M.D., assistant professor of clinical ophthalmology. Olk also presented a lecture titled "Argon Green vs. Krypton Red Modified Grid Laser Photocoagulation for Diffuse Diabetic Macular Edema — Effect of Contrast Sensitivity," at the Macula Society meeting in Maui, Hawaii. At the same meeting, M. Gilbert Grand, M.D., associate professor of clinical ophthalmology, presented a lecture titled "The Affect of Acute Leukemia on Diabetic Retinopathy."

Emma Kafalenos, Ph.D., lecturer in comparative literature, delivered papers at two conferences. At the annual meeting of the American Comparative Literature Association in University Park, Pa., she spoke on "Fabulas, Sjuzhets, and Mises en abyme: Toward a Typology of Postmodern Narrative." At the International Colloquium on Twentieth-Century French Studies in Iowa City, Iowa, she presented "The Ontology of histoire: Through the Looking-Glass of La Maison de rendez-vous."

John C. Morris, M.D., assistant professor in neurology and pathology and associate neurologist-in-chief at Jewish Hospital, was inducted as a Fellow of the American College of Physicians in Chicago, Ill. He also was the keynote speaker at the Alzheimer's Disease Symposium at the Michael Reese Medical Center in Chicago. His presentation was titled "Advances in the Diagnosis of Alzheimer's Disease."

Joanne Mortimer, M.D., associate professor of medicine, co-wrote an article that appeared in the March issue of Hospital Physician. The article was titled "Antibiotic Therapy for the Febriel Cancer Patient." Douglas Black, Ph.D., assistant professor of the college of pharmacology at the University of Washington in Seattle, co-wrote the article with Mortimer.

Powell Niland, Ph.D., professor emeritus of management, recently received an honorable mention in The Planning Forum's 1989 Case Study Contest. His case study, "U.S./Japanese Joint Venture: New United Motor Manufacturing (NUMMI), Inc.," published in the January/February 1989 issue of Planning Review, was one of three receiving honorable mentions. The winning studies were announced at The Planning Forum's annual conference in Washington, D.C.

R. Joseph Olk, M.D., associate professor of ophthalmology, was a visiting faculty member for the Ocular Treatment, Laser and Fluorescein Angiography course in Minneapolis. His lectures were titled "Photocoagulation for Diabetic Macular Edema" and "Retinal Vein Occlusions." He also was a faculty member for the American Academy of Ophthalmology special focus course on "Laser Photocoagulation for the Posterior Segment." In addition, Olk was a visiting professor at the University of Toronto and at the Latin American Continuing Education Course in Santurce, Puerto Rico, where he spoke on diabetic macular edema and age-related macular degeneration.

Karen L. Tokarz, LL.M., professor of law and director of clinical education, has been awarded the first annual President's Award from the Women Lawyers Association of Greater St. Louis for contributions to the advancement of women in the legal profession. Chief Judge Charles Blackmar of the Missouri Supreme Court named her to the newly created Missouri Gender Bias Task Force, which examines the possibility of gender bias in the courts. Her article titled "A Tribute to the Nation's First Women Law Students" was published in the winter 1990 issue of the Washington University Law Quarterly and was reprinted in an article titled "Opening the Way" in the winter 1990 issue of Washington's law school magazine. She was interviewed by Bonita Cornute, producer/host of the "Turnabout" program aired weekly on KTVI-TV Channel 2, about her research on the law school's 120th anniversary celebration as the first chartered law school in the nation to admit women.

Arthur Wirth, Ph.D., professor emeritus of education, gave an invited paper titled "Issues in the Reorganization of Work: Implications for Education" at an Ohio State University Conference on Science/Technology/Society.

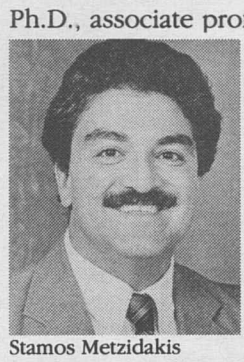
Have you done something noteworthy?

Have you: Presented a paper? Won an award? Been named to a committee or elected an officer of a professional organization? The Washington University Record will help spread the good news. Contributions regarding faculty and staff scholarly or professional activities are gladly accepted and encouraged. Send a brief note with your full name, highest-earned degree, current title and department along with a description of your noteworthy activity to Notables, Campus Box 1070, or by electronic mail to p72245SS at WUVMC. Please include a phone number.

Metzidakis named Summer School director

Stamos Metzidakis, Ph.D., associate professor of French, has been appointed director of the University's Summer School, effective Sept. 1.

He succeeds Ronald C. Freiwald, Ph.D., associate professor of mathematics, who has served as Summer School director since September 1985. Freiwald, who also was acting dean of University College during the 1989-1990 academic year, will return to teaching and other responsibilities in the Department of Mathematics.


Stamos Metzidakis

The Summer School director is responsible for planning, publicizing and executing the summer academic programs of the College of Arts and Sciences and University College.

Metzidakis has served as director of undergraduate studies in French and as a freshman adviser in the College of Arts and Sciences. In University College, he has been an instructor and Romance languages coordinator, as well as a University College Council member. Metzidakis, whose academic specialties include 19th- and 20th-century French poetry and modern critical theory, will continue his teaching responsibilities in the Department of Romance Languages and Literatures on a part-time basis.

Metzidakis received his bachelor's degree from Princeton University in 1974 and a master's degree from the University of Michigan in 1976. He earned his doctorate in 1982 from Columbia University. He also attended the University of Paris, where he studied extensively as an undergraduate and graduate student.

Alcoholic veterans are focus of study

The use of physical and mental health services by some 15,000 alcoholic veterans is being studied to determine whether completing an alcohol treatment program reduces the need for health care. Cynthia Cook, Ph.D., an assistant professor at the George Warren Brown School of Social Work, is co-principal investigator of the study. The National Institute on Alcohol Abuse and Alcoholism is funding the research at $305,000 for two and one-half years.

The study involves a random sample of some 7,400 alcoholic veterans who completed a Department of Veterans Affairs (VA) alcohol treatment program in 1987 and another sample of 7,400 alcoholic veterans who did not go through treatment. Using the VA's national database, Cook and two other researchers are looking at these veterans' inpatient and outpatient VA discharge records for the three years before and three years after 1988. Measures of health-care use include frequency of hospitalizations, total length of hospital stays and number of outpatient clinic visits.

"The bottom line is, if health-care use decreases after alcohol treatment, then this kind of treatment may be more cost effective than what many people think," says Cook. "If this study shows that veterans who have completed alcohol treatment have fewer mental and physical health needs than alcoholics who don't go through treatment, the results will have major policy implications for both the VA and the private sector."

The two other researchers are Brenda M. Booth, assistant research scientist at the Center for Health Services Research at the University of Iowa, and Frederic C. Blow, research director of the Department of Psychology's Alcohol Research Center at the University of Michigan.

NEWSMAKERS

Washington University faculty and staff make news around the globe. Following is a digest of media coverage they have received during recent weeks for their scholarly activities, research and general expertise.

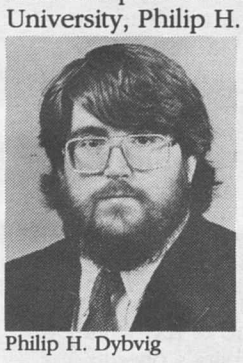
Giving cats monthly baths could help millions of American cat owners alleviate the allergic reactions they have to their pets, says H. James Wedner, M.D., associate professor of medicine. While evaluating two drugs for their ability to lessen the major allergen cats produce, Wedner's team found that the bathing procedure itself significantly lowered allergen production in cats. The story was distributed by the Associated Press and Gannett News Service. It appeared in *The New York Times, Business Week, Chicago Tribune, Dallas Morning News, San Francisco Examiner, Philadelphia Inquirer, Washington Post, Atlanta Constitution, Consumers' Research, New York Post, New York Tribune, Kansas City Star,* and many other large newspapers across the country between June 4 and June 24.

Graduation is a special time for students and their proud parents at schools across America. And nowhere is graduation more special than at the Washington University Medical Center's Central Institute for the Deaf. After years of intensive classroom instruction and hard work, graduates have learned to speak, thus earning the right to be mainstreamed into regular classes with hearing children. The story aired on Worldwide Television News, Voice of America Radio, WTOC-TV in Savannah, Ga., WLKY-TV in Louisville, Ken., KFVS-TV in Cape Girardeau, Mo., KGWN-TV in Cheyenne, Wyo., WTN-TV in Washington, D.C., and WLBT-TV in Jackson, Miss, between June 4 and June 27.

Separating the stone from the bone is exactly what researchers must do when they use 3-D computer diagnostic imaging techniques to learn more about species evolution by scanning ancient fossil skulls. The story outlines the research of Michael Vannier, M.D., associate professor of radiology, and Glenn Conroy, Ph.D., professor of anatomy. It aired on Worldwide Television News, Voice of America Radio, WTN-TV in Washington, D.C., WTOC-TV in Savannah, Ga., WLKY-TV in Louisville, Ken., KGWN-TV in Cheyenne, Wyo., WLBT-TV in Jackson, Miss., and KFVS-TV in Cape Girardeau, Mo., and appeared in the June 2 *Dallas Morning News.*

Finance expert is named Olin's Boatmen's Bancshares professor

A former professor of finance at Yale University, Philip H. Dybvig, Ph.D., has been appointed to fill an endowed professorship at the John M. Olin School of Business. The endowment was established in honor of Donald N. Brandin, who retired as chairman of Boatmen's Bancshares Inc. in April 1989. The special faculty position is made possible through a $1 million grant from Boatmen's.


Philip H. Dybvig

The endowed chair, the Boatmen's Bancshares Professorship of Banking and Finance, will help promote academic research and study of banking and finance among business school students.

Dybvig, an internationally recognized researcher who has made significant contributions to the field of finance, focuses on portfolio theory, financial markets' analysis and banking in his research and teaching.

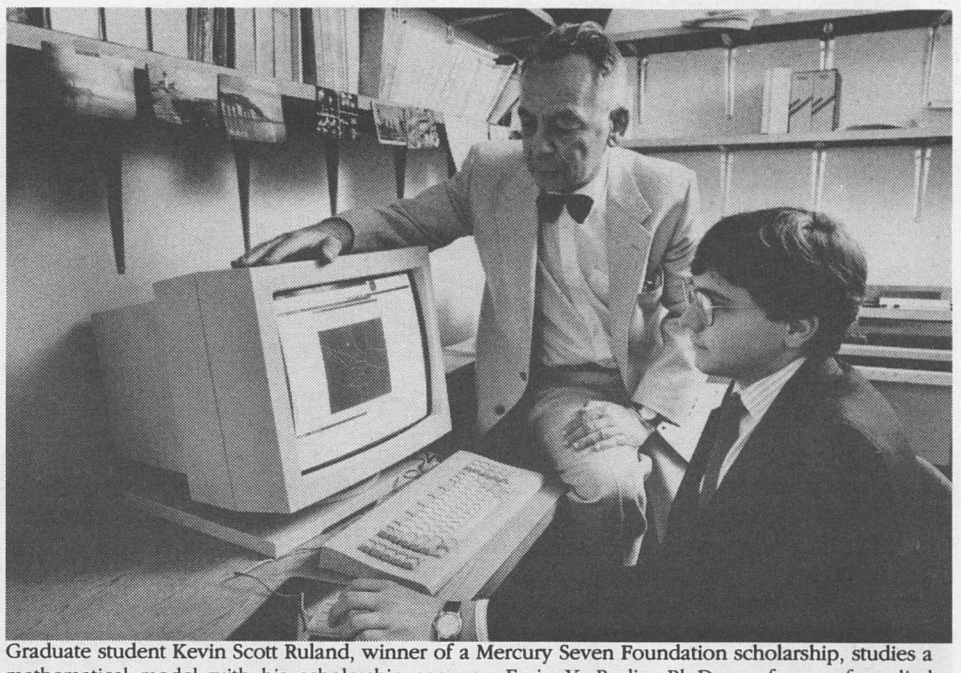
A former Sloan as well as Batterymarch research fellow while at Yale, Dybvig is an editor of the Review of Financial Studies and an associate editor of the Journal of Financial Intermediation. He has published many articles in leading journals in addition to two college textbooks. He received his bachelor's in math and physics from Indiana University in 1976. He earned a master of arts and a master of philosophy in 1978, and a doctorate in economics in 1979, all from Yale.

Olin Dean Robert L. Virgil, Ph.D., said, "This professorship is a tribute to the standards of excellence that Don Brandin set for Boatmen's. Philip Dybvig is a nationally recognized scholar. His appointment will enhance the school's reputation for advanced research and study in the field of banking and finance."

Brandin joined Boatmen's National Bank of St. Louis in 1956 as a vice president. He became senior vice president in '67, president in '71 and chairman and chief executive officer of the bank and the holding company, Boatmen's Bancshares Inc., in 1973.

Andrew B. Craig III, chairman, president and chief executive officer of Boatmen's Bancshares, said, "We are extremely pleased to establish this professorship in honor of Don Brandin, who devoted 33 years of outstanding service to Boatmen's. When he became chairman and chief executive officer in 1973, Boatmen's was a relatively small St. Louis bank with assets of $500 million. Today, Boatmen's is one of the nation's 50 largest bank-holding companies, with assets approaching $15 billion."

The endowment for the professorship will be distributed to the University by Boatmen's Charitable Trust over the next five years.


Graduate student Kevin Scott Ruland, winner of a Mercury Seven Foundation scholarship, studies a mathematical model with his scholarship sponsor, Ervin Y. Rodin, Ph.D., professor of applied mathematics and systems science.

Graduate student is among 10 in nation to receive Mercury Seven scholarship

Kevin Scott Ruland, a graduate student in the Department of Systems Science and Mathematics, is one of 10 young science scholars in the nation to receive a Mercury Seven Foundation scholarship for 1990-91.

The non-profit Mercury Seven Foundation was created in 1984 by the six surviving members of America's original Mercury Seven astronauts and Betty Grissom, widow of the seventh. The astronauts are M. Scott Carpenter, L. Gordon Cooper Jr., John H. Glenn Jr., Walter M. Schirra, Alan B. Shepard Jr. and Donald K. Slayton. Shepard is the foundation's president.

The foundation's goal is to strengthen the U.S. position in science and technology by awarding scholarships to third- and fourth-year undergraduate students and graduate students who have demonstrated special characteristics of mental ability, self-discipline and high creative drive in their chosen science field. Each scholarship is worth $7,500.

Ruland, of Ferguson, Mo., will begin work this fall toward a doctoral degree in systems science and mathematics at the University, where he received a bachelor's degree from the same department in May 1990. Ruland, who was on the dean's list his last two years, was honored in 1989 and 1990 with "outstanding" awards in national mathematical competitions in modelling. For his doctorate he will work on a mathematical model of airline transportation systems.

Ervin Y. Rodin, Ph.D., professor of applied mathematics and systems science and director of the Center for Optimization and Semantic Control, sponsored Ruland for the scholarship.

"Kevin is a truly deserving winner who already is tackling some very major problems in science and society," said Rodin. "We are very proud of him and expect his continued outstanding scholarship in the years ahead."

Two new health service directors named

The Hilltop and the School of Medicine campuses both have new health service directors, effective July 1.

Roberta L. Loeffler, M.D., attending physician in the emergency department at Jewish Hospital and physician at the Hilltop Campus general clinic, is the new director of Student Health Service on the Hilltop Campus. Cathy J. Lazarus, M.D., an attending physician at Barnes and Jewish hospitals and a physician with Student Health Service, is the Medical Campus Health Service director.


Roberta L. Loeffler

Loeffler and Lazarus succeed Mary L. Parker, M.D., who retired as head of University Health Service June 30 after 34 years with the University. The position has been split in order to have a full-time director at both campuses and to meet expanding needs at the School of Medicine.

As director at the Hilltop Campus, Loeffler oversees all Hilltop Health Service activities, which include outpatient care and supporting health services at the general clinic, and inpatient care at the infirmary. She is the University contact for parents of students who become sick or injured while at school. She supervises the physician and nursing staff and is on 24-hour call for any emergency.

Loeffler, who received her medical degree from Washington University's School of Medicine in 1984 and is a physician at Busch Stadium's first aid station, began working at Jewish Hospital in 1984 as an intern in the Department of Internal Medicine. She was a resident there from 1985-87. She became chief resident in 1987 and assumed her position as attending physician in the hospital's emergency department in 1988. During that same year she became a physician in the general clinic of the Student Health Service on the Hilltop Campus.

She earned her bachelor's in chemistry in 1978 from Emporia State University in Kansas, and her master's in chemistry in 1980 from Purdue.

At the medical campus, Lazarus directs both student and employee health service activities. As director of student health, she handles students in the schools of medicine, dentistry, physical therapy, occupational therapy, radiology technology, graduate school of biological sciences, health administration and nurse anesthesia. As employee health service director, she oversees provision of appropriate vaccines for staff working in high risk areas, and provides medical treatment for staff with needlestick injuries and injuries inflicted while handling lab animals. All other on-the-job injuries are seen through Barnes Emergency or through the University's workman's compensation physicians.


Cathy J. Lazarus

Lazarus, an instructor in clinical medicine at the School of Medicine, served as the associate director of the emergency department at Jewish Hospital before becoming a staff physician with the Health Service in 1987. She received her medical degree from the School of Medicine in 1981. Following an internship and residency at Jewish Hospital, she served a fellowship in pulmonary medicine at the School of Medicine. She has been an instructor in clinical medicine at the School of Medicine since 1984.

A Phi Beta Kappa, she earned her bachelor's degree in biology in 1977 from the University of Michigan.

Jasper, Clayton promoted in public affairs

Judith M. Jasper has been promoted to executive director of university communications and Donald Clayton has been promoted to executive director of medical public affairs at Washington University, announced M. Fredric Volkmann, vice chancellor for public affairs.

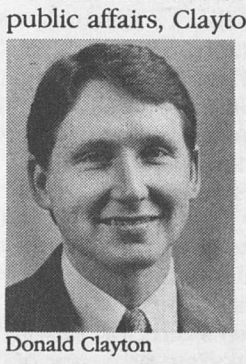
In her role as executive director of university communications, Jasper coordinates public relations and national news strategies for the University. She also manages several public affairs offices, including broadcast services, news services, sports information and business issues. In addition, she oversees the Office of Public Affairs when the vice chancellor for public affairs is absent.


Judith M. Jasper

Jasper was appointed director of university communications here in 1989. She previously was public relations director for the St. Louis Science Center. She also has served as director of community relations and director of alumni and special events at Webster University. Prior to that she was corporate communications manager for American Investment Co. of St. Louis.

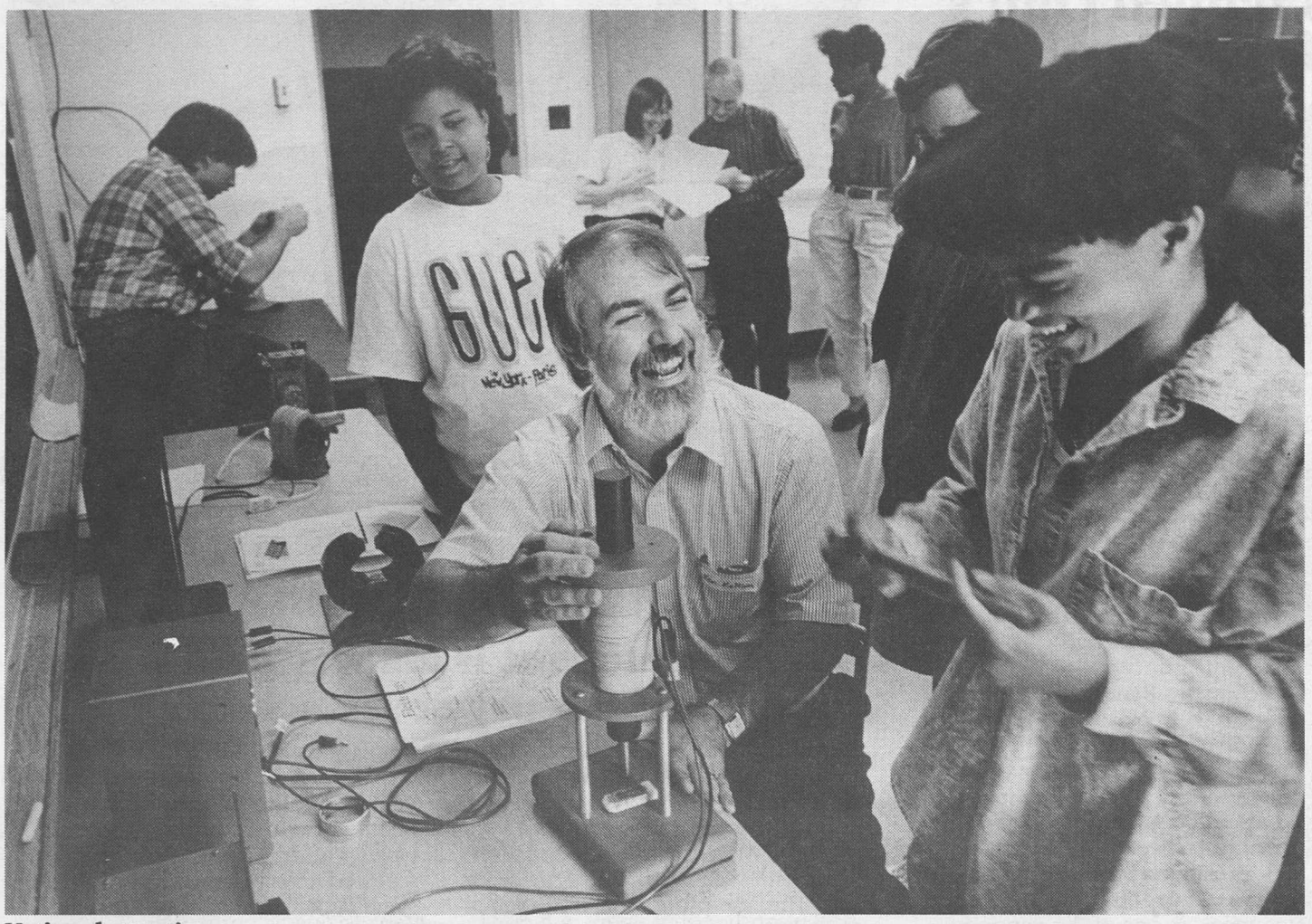
Jasper is a member of the Public Relations Society of America, Women in Communications Inc., and the Council for Advancement and Support of Education. She has a bachelor's degree in psychology from Manhattanville College in Purchase, N.Y.

As executive director of medical public affairs, Clayton oversees all aspects of the School of Medicine's public affairs program. He supervises a staff responsible for publications, photographic services, medical news and feature writing and local as well as national media relations. He succeeds Glenda K. Wiman, who has become assistant dean for special programs for the School of Medicine.


Donald Clayton

Clayton joined the public affairs staff at the School of Medicine in 1983 and has served as director of medical public relations and of medical communications. He also has worked in public affairs at the Vanderbilt University Medical Center in Nashville, Tenn., and the National Institutes of Health in Bethesda, Md.

A member of the Association of American Medical Colleges and the Council for the Advancement and Support of Education, he has a bachelor's degree in English and biology with a minor in chemistry from Notre Dame College and a master's degree in science journalism from Marquette University.



National attention: In a photo that ran in the June 17 issue of The New York Times, Kenneth F. Kelton, center, Ph.D., associate professor of physics, talks with students Nicole Chapelle-Nadal and Stacy West, right, of Brittany Woods Junior High School during a demonstration on electromagnetism for that junior high school's science field day. Kelton and other University scientists participated in the field day as part of the Washington University/University City science education partnership, which started in early 1989. According to Sarah Elgin, Ph.D., professor of biology and partnership head, the idea is to promote science education by giving University City teachers access to scientists and other resource people in the University community.

Smoke-free policy at Medical Center tops summer news

The establishment of a smoke-free environment at the Washington University Medical Center and the retirement of several high-ranking officials were among the news events announced during the summer. Below is a recap of the major news stories that appeared in the June, July and early August issues of the Record.

• The School of Medicine is joining Barnes, Jewish and Children's hospitals in instituting a policy that will provide a smoke-free environment throughout the Washington University Medical Center, effective Sept. 10. In conjunction with the new smoking policy, on-site smoking cessation classes are being offered.

• In another development related to smoking cessation, the University's Center for Health Behavior Research received a grant totaling $1 million to develop a neighborhood-run smoking cessation network in a predominantly black community in St. Louis. The grant, awarded by the National Heart Lung and Blood Institute, will provide $370,000 a year for three years to fund a collaborative project between the University, Grace Hill Neighborhood Services and the Missouri Department of Health. The center's director, Edwin B. Fisher, Ph.D., associate professor of psychology, is directing the program.

• Herbert F. Hitzeman Jr., senior vice chancellor for university relations, Joe F. Evans, associate vice chancellor for business affairs, and Mary L. Parker, M.D., head of the Student Health Service and associate professor of medicine and preventive medicine, all retired June 30 after serving Washington a combined total of 94 years. Meanwhile, Ronald G. Evens, M.D., director of the Mallinckrodt Institute of Radiology at the medical school and former vice chancellor for financial affairs, returned to full-time duties at the institute.

To mark Hitzeman's distinguished career here, the University has named the former "G" residence hall after him. Chancellor William H. Danforth announced the naming of the hall during a June 1 retirement dinner celebrating Hitzeman's 24 years of service to the University. Referring to Hitzeman, Danforth said, "Under his direction, the University not only successfully completed three major campaigns, but also all areas of alumni, development and public relations have shown extraordinary improvement. The results of his work will benefit generations of students. I think it highly fitting that Herbert Hitzeman's name appears on a building that houses our students." Hitzeman is a 1953 graduate of Washington.

• Viktor Hamburger, Ph.D., Edward Mallinckrodt Distinguished Professor emeritus of biology, received the 1990 Karl Spencer Lashley Award from the American Philosophical Society in Philadelphia, the nation's first learned society that traces its roots to the philosopher, inventor and statesman Benjamin Franklin.

• Two new members have been elected to the Board of Trustees: Thomas H. Jacobsen, chairman, president and chief executive officer of Mercantile Bancorporation Inc. and Mercantile Bank of St. Louis N.A., and Edward E. Whitacre Jr., chairman and chief executive officer of Southwestern Bell Corp. Both are elected to four-year terms.

• A memorial service was held June 17 in Graham Chapel for Thomas Steele Hall, Ph.D., a former dean of the College of Liberal Arts at Washington and a longtime professor of biology here. Hall died June 12 after suffering a heart attack at Barnes Hospital. He was 81.

• Former Surgeon General C. Everett Koop visited the School of Medicine in late June to talk with experts on aging for an upcoming television program on health care in America. One hour of the five-hour series, scheduled to air on NBC in December, will be devoted to issues on aging.

• Several University officials have been promoted. Thomas A. Harig, director of purchasing and general services, has been named acting associate vice chancellor for business affairs, succeeding Joe Evans. Lee E. Hanson, director of development services, has received the additional title of assistant vice chancellor. At the School of Medicine, Glenda K. Wiman, executive director of the Office of Medical Public Affairs, has been named assistant dean for special programs.

• In other appointment news, Carl D. Rhodes Jr., Ph.D., formerly an associate dean at the University of Texas Southwestern Medical Center in Dallas, has been named associate dean for graduate studies at the School of Medicine and associate dean in the Graduate School of Arts and Sciences. Rhodes was affiliated with the School of Medicine from 1983-88.

In addition, Dana Wilson Klar, a former legal assistant with the U.S. Indian Health Service, has been appointed director of the new Center for American Indian Studies in Social Services at the George Warren Brown School of Social Work.

• At the request of the International Atomic Energy Agency (IAEA) and the government of the Soviet Union, Henry D. Royal, M.D., associate professor of radiology and associate director of nuclear medicine at the Mallinckrodt Institute of Radiology, has been asked to perform an in-depth study of illnesses that have been attributed to the April 1986 explosion of a nuclear reactor in Chernobyl.

Royal, an internationally renowned expert in radiation exposure, is one of two physicians from the United States who is serving on the IAEA's medical effects team. In May the team reviewed the data regarding the effects of the nuclear accident already collected by Soviet scientists. In the fall the team will perform its own health survey, examining the people from contaminated and non-contaminated villages to determine the incident of thyroid disease, anemia and other potential radiation-related illnesses.

• William C. Jones, J.S.D., professor of law, has been appointed the Charles Nagel Professor of International and Comparative Law at the University.

• Patty Jo Watson, Ph.D., professor of anthropology, received the Fryxell Medal for 1990 from the Society for American Archaeology for her "... outstanding scientific contributions to understanding the human past in the Americas." The award, which carries a certificate and a medal, was presented to Watson at the society's annual meeting.

• William K. Y. Tao, retired chairman and founder of the engineering firm William Tao & Associates Inc., received the University's prestigious William Greenleaf Eliot Society "Search" Award during the society's annual dinner. The Search Award honors an individual who has enriched the University by his or her interest and support.

• Theodore Reich, M.D., Samuel and Mae S. Ludwig Professor of Psychiatry and professor of genetics at the School of Medicine, was awarded four grants totaling $6.8 million to support his studies of genetic factors related to alcoholism and depression.

• Two members of the School of Medicine faculty received prestigious awards while another received the Charles E. Culpeper Foundation Scholarship in Medical Science for 1990. Bernard Becker, M.D., professor and former head of the ophthalmology department, received the Alcon Research Institute Award for his outstanding contribution in the field of vision research. Becker was one of 10 scientists to receive the $50,000 award, presented annually by the Research and Development Division of Alcon Laboratories. Robert L. Grubb Jr., M.D., professor of radiology and neurological surgery, was awarded the Grass Prize by the Society of Neurological Surgeons. The society honors neurosurgeons for their long-term commitments and outstanding contributions to research in neurological surgery.

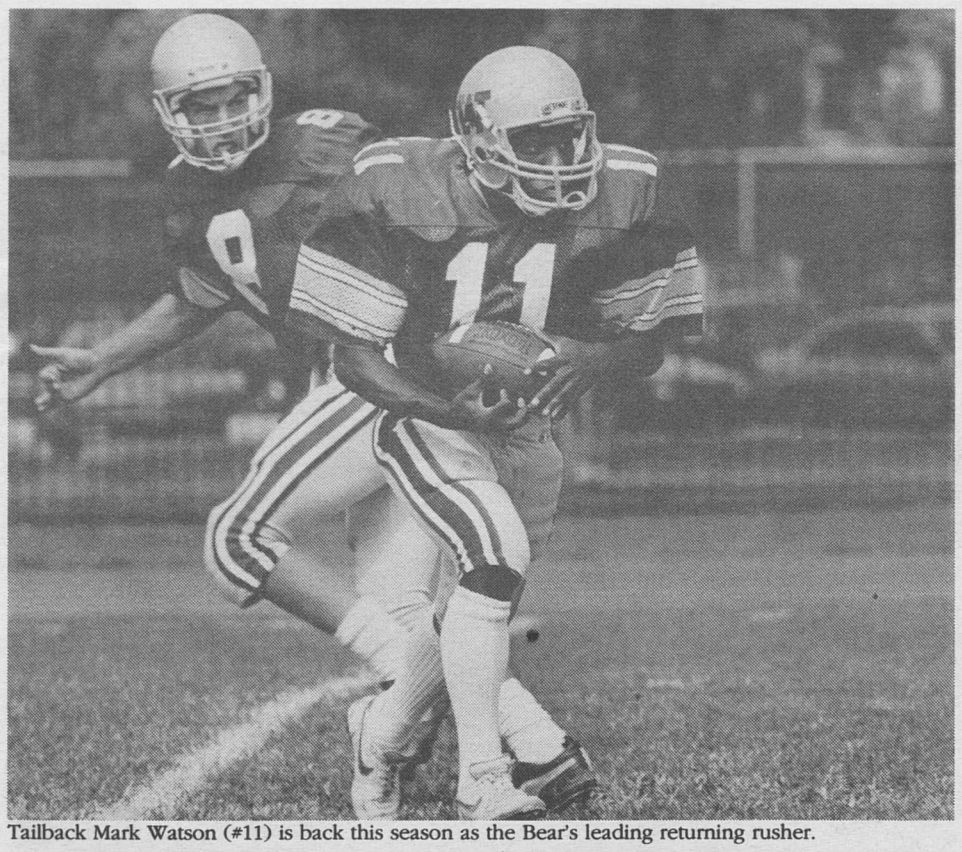
As the recipient of the Culpeper scholarship, Glen Hortin, M.D., Ph.D., assistant professor in pediatrics and pathology, will receive $100,000 a year for three years to fund his research focusing on the interactions of a family of molecules in blood called the complement system, which forms part of the body's immune defense in warding off disease.

• St. Louis high school students Susan Keithley and Brook Beall spent 10 weeks of their summer vacation working in laboratories at the School of Medicine as two of the first National Kidney Foundation Science Scholars. Under the tutelage of medical school researchers, the students honed a pre-existing interest in research and medicine by overseeing a research project and writing a summary report of their experiences and the knowledge they gained. The novel program is part of a nationwide effort by the Kidney Foundation to interest sharp young people in the field of medical science. The students each received a $2,500 stipend for participating in the summer research project.

• The Lynde and Harry Bradley Foundation of Milwaukee, Wis., awarded a $500,000 grant to the Center for the History of Freedom. The grant will help support the center's activities for the next two years.

• The family of Christophine G. Mutharika, a nurse for the Student Health Service who died Jan. 30, 1990, endowed a permanent prize to be awarded annually to a third-year law student who achieves the highest final grade in international law.

SPORTS



Tailback Mark Watson (#11) is back this season as the Bear's leading returning rusher.

Football Bears celebrate 100th anniversary

Positive feeling surrounds program

Like most coaches, Larry Kindbom is not predicting wins and losses for his football team. However, he is assuring Washington University followers that this year's gridiron squad will improve over last year's 4-5 group.

The numbers back up his claim.

Sixteen seniors and one graduate student add up to leadership, experience and confidence — qualities missing over recent years due to a roster deficiency of upperclassmen.

"The basis of our program lies in senior leadership," says Kindbom, the Bears' second-year mentor. "Senior leadership involves more than just talent and playing ability; it deals with team confidence and character.

"We have enough seniors who have been around for three years who have a special feeling about playing a final season. These people are going to be the basis of our day-to-day growing as a football team, and I think they've seen both sides of the coin. They've tasted what it's like to fall short of their goals, and they've tasted success and achievement. Having seniors who know which side of the coin they like best — in a position to work with our underclassmen — gives us a greater edge going into this season compared with previous years."

The Bears' senior leadership emanates from captains Doug Storm, Lakewood, Ill., Steve McRae, Los Angeles, and John Stefanos, Oak Lawn, Ill. "We couldn't ask for better and more appropriate captains," Kindbom says. "We have the leadership who can help raise our level of play every day."

The positive feeling which now surrounds the football program couldn't have come at a better time. The Red and Green are celebrating their 100th anniversary, and would love nothing more than to commemorate the centennial with an improved record over a year ago. That means anything better than 4-5 would represent not only an improvement over last year, but the best mark since 1978 when the Bears finished 5-4.

The Bears also are officially beginning a new era in regards to conference play. Washington starts play for the third time in its history in a new athletic league — the University Athletic Association (UAA). Due to previous scheduling commitments, this season represents the first year the UAA-playing football schools could schedule all conference opponents.

In addition to the centennial celebration and the new league, the Bears carry their longest winning streak in 15 years — three games — into this season. Will all the distractions hinder the Bears' preparation?

"As a football organization, we try to stay focused from day one on what we can achieve as individuals and members of the Washington University team," says Kindbom. "If we can continue to stay focused on ourselves and continue to get better both individually and as a team, then we won't have time to think about the new league and winning streaks."

When assessing the Bears, you can start first with the ever-improving defense and the potent punting of Eric Nyhus, the senior All-American.

Last year's defensive unit shaved nearly 100 yards off its per game allowed average from 1988, and managed to cut its points allowed per game from 32.0 to 18.2. As a unit, the defense allowed just 113.6 yards per game in the air — good enough to rank among the top 30 teams in NCAA Division III.

"We have the people, the experience, the leadership, but defense more than any other aspect of the game of football is a daily affair," Kindbom says. "The things that happened in the past were exciting for us, yet are over now. We're starting a new season, and with a new year, our defense is going to have to build a new identity and chemistry.

"The one characteristic about our defense which makes me feel good is our speed. Speed does not always make you good, but I like to think we have players who can hit, players with some strength and players who can find a way to get to the football. This is our cause for optimism."

The offense continues to make improvements. Offensively, the Bears had to make huge adjustments last year with a new system and many inexperienced, yet talented players.

This season though, Kindbom feels his offensive squad, which includes eight returning starters, will act more at ease with one-year's experience under its belt.

"Our offense is very multiple," he says. "We do so many different things through formation, running back set adjustments and motion — this allows us to run a lot of different plays. This year, like any other year, we will focus on those things that our personnel handles best."

Men's soccer Bears face another tough schedule

Last year, the men's soccer team finished the season with nine straight wins, a share of the University Athletic Association (UAA) title and an impressive 15-4-0 season record. Unfortunately, the season record and accomplishments were not convincing enough for the NCAA selection committee who left out the Bears, one of the NCAA's most successful postseason teams.

Well, 1990 is a new year, and this season the UAA champion receives an automatic bid to the NCAA Division III Tournament. However, head coach Ty Keough doesn't want to focus entirely on the conference games.

"I tend to be more pragmatic when it comes to season goals," says the fourth-year mentor. "I want to go out each game with the idea in mind that we're going to improve upon our last performance and continue to get better with each game as the season goes along. That's all I really want from my team. I've never been one to dwell on things like 'we have to win all our conference games' — you get ahead of yourself that way. At the end of the season, if you do qualify or are chosen for the tournament, we don't want to be satisfied with just making the tourney — we want to win it.

"We obviously finished the 1989 season with a strong team feeling and unity. But we also finished off with a real disappointment — not getting the NCAA bid. So that's a good motivating tool for us in some respect. I think the returning players feel they didn't get a fair shake and will be out to prove themselves this season."

Washington University has a significant number of returning starters — seven — which could lead to big things in 1990. However, like most seasons, there are some major questions the Bears must answer as the season progresses.

First, the Bears must replace their three-time All-America goalkeeper Chris Scaglione who started in goal four consecutive seasons. Waiting in the wings are Jeff Pomranka and Alex Vaynshteyn — two seniors who will get one last shot at playing goalkeeper this fall.

Second, the Bears face another ambitious schedule. Five NCAA Division III postseason teams dot the 1990 schedule, with two of the five tourney teams coming from the UAA.

"Just because you have a large number of players returning doesn't mean you're going to have a good season," Keough says. "As resolved as our players are to show they were short-changed last year, and as good a group and team unity we have, you wonder, at least initially, how much they realize that amount of work it took to have the type of season we did last year.

"Obviously, we're going to miss Chris Scaglione. The goalkeeper position will be one of the first things we address this season. We're also emphasizing to our players how the game will change with the new substitution rule. (Once a player leaves the game, then he cannot return until the next half or over time period.) Most likely, players will not get the amount of playing time as they did in the past, which will create a more competitive environment during practices."

The Bears' top returning players include forward Paul Wright, a two-time all-Midwest and all-UAA pick. Wright, a senior, finished last season with 11 goals and seven assists, and currently ties for fourth on the Bears' all-time assist list with 22.

MEN'S SOCCER SCHEDULE

DATE	OPPONENT	TIME	SITE
Sat., Aug. 18	ALUMNI (Exhibition)	6 p.m.	HOME
Mon., Aug. 20	Florissant Valley Community College (Exh)	8 p.m.	Our Lady of Loretto
Sun., Aug. 26	Webster University	2 p.m.	St. Louis
Fri., Aug. 31	Ohio Wesleyan Tournament	5 p.m. (EDT)	Delaware, Ohio
Sat., Sept. 1	Ohio Wesleyan Tournament	5 p.m. (EDT)	Delaware, Ohio
Thu., Sept. 6	Maryville College	4 p.m.	St. Louis
Sat., Sept. 8	PARKS COLLEGE	11 a.m.	HOME
Tue., Sept. 11	UNIVERSITY OF MISSOURI-ROLLA	7 p.m.	HOME
Fri., Sept. 14	* NEW YORK UNIVERSITY	7 p.m.	HOME
Sun., Sept. 16	Augustana College	1 p.m.	Rock Island, Ill.
Thu., Sept. 20	Illinois College	4 p.m.	Jacksonville, Ill.
Wed., Sept. 26	PRINCIPIA COLLEGE	7:30 P.M.	HOME
Sat., Sept. 29	* UNIVERSITY OF ROCHESTER	1 p.m.	HOME
Sat., Oct. 6	* Brandeis University	1 p.m. (EDT)	Waltham, Mass.
Tue., Oct. 9	UNIVERSITY OF MISSOURI-ST. LOUIS	7:30 p.m.	HOME
Sat., Oct. 13	* Carnegie Mellon University	7:30 p.m. (EDT)	Pittsburgh, Pa.
Wed., Oct. 17	MacMurray Colege	4 p.m.	Jacksonville, Ill.
Sat., Oct. 20	* UNIVERSITY OF CHICAGO	1 p.m.	HOME
Sun., Oct. 21	DePAUW UNIVERSITY	1 p.m.	HOME
Fri., Oct. 26	* CASE WESTERN RESERVE UNIVERSITY	7:30 p.m.	HOME
Sun., Oct. 28	* Emory University	3 p.m. (EST)	Atlanta, Ga.

ALL HOME OPPONENTS IN CAPITALS

**University Athletic Association contest.*

CENTENNIAL FOOTBALL SCHEDULE

DATE	OPPONENT	TIME	SITE
Sat., Sept. 1	Kentucky Wesleyan College	7 p.m.	Owensboro, Ky.
Sat., Sept. 8	* CARNEGIE MELLON UNIVERSITY	7 p.m.	HOME
Sat., Sept. 15	* CASE WESTERN RESERVE UNIVERSITY	1:30 p.m.	HOME
Sat., Sept. 22	* University of Rochester	7 p.m. (EDT)	Rochester, N.Y.
Sat., Sept. 29	TRINITY UNIVERSITY	7 p.m.	HOME
Sat., Oct. 6	# CENTRAL METHODIST COLLEGE	7 p.m.	HOME
Sat., Oct. 13	Rhodes College	2 p.m.	Memphis, Tenn.
Sat., Oct. 20	Colorado College	1:30 p.m. (MDT)	Colorado Springs
Sat., Oct. 27	PRINCIPIA COLLEGE	1:30 p.m.	HOME
Sat., Nov. 3	* University of Chicago	1:30 p.m.	Chicago, Ill.

ALL HOME OPPONENTS IN CAPITALS

**University Athletic Association contest.*

#Homecoming and Official Centennial Game.

CALENDAR

Aug. 30-Sept. 8

LECTURES

Thursday, Aug. 30

Noon. Dept. of Surgery Transplant Seminar, "Cytotoxic T-lymphocyte Development and Regulation at the Late Pre-Effector Stages," Brian Susskind, assoc. professor of surgery, microbiology and immunology, Medical College of Virginia, Virginia Commonwealth University. Room 7738 Clinical Sciences Research Bldg.

Wednesday, Sept. 5

11 a.m. Assembly Series Lecture, "On the Pattern of Life's History and the Improbability of Human Evolution," Stephen Jay Gould, Alexander Agassiz Professor of Zoology, Harvard, University and author of *Wonderful Life: The Burgess Shale and the Nature of History*. Graham Chapel. For more info., call 889-4620.

4 p.m. Dept. of Physics Colloquium, "Quantum Electrical Engineering: The Quantum Mechanics of Submicron Electronics," Yaotian Fu, WU asst. prof. of physics. Room 204 Crow Hall. (Coffee will be served at 3:30 p.m. in Room 245 Compton Hall.) For more info., call 889-6276.

Thursday, Sept. 6

4 p.m. Dept. of Chemistry Seminar by Udo Schroeder, chemistry dept., U. of Rochester. Room 311 McMillen. For info., call 889-6530.

MUSIC

Thursday, Aug. 30

2-4 p.m. WU Mixed Choir and Vocal Jazz Group Auditions. 10 Blewett B. For more info., call 889-5581.

5-7 p.m. WU Chamber Choir Auditions. 8 Blewett B. For more info., call 889-5581.

Sunday, Sept. 2

1:30-5 p.m. WU Wind Ensemble Auditions. Tietjens Rehearsal Hall. To make an appointment or for more info., call 889-5581.

Tuesday, Sept. 4

7-7:30 p.m. WU Chamber Music Ensemble Auditions. 3 Blewett B. For more info., call 889-5581.

7-8 p.m. WU Collegium Musicum Auditions. 2 Blewett B. For more info., call 889-5581.

7-10:30 p.m. WU Jazz Band Auditions. Tietjens Rehearsal Hall. To make an appointment or for more info., call 889-5581.

EXHIBITIONS

"Bookness: Artists' Explorations of Form and Content," including "artist's books" by John Cage, Andy Warhol and local artist Leila Daw. (An opening reception for this and two other shows will be held from 7-9 p.m. Fri., Sept. 7, in the Gallery of Art. New York-based artist Ford Beckman will give a lecture at the opening.) Gallery of Art, Steinberg Hall, lower gallery. Through Dec. 2. 10 a.m.-5 p.m. Tuesdays through Fridays (will be open on Mondays, same time, after Sept. 3); 1-5 p.m. weekends. The gallery is closed Sept. 1 and 2. For more info., call 889-4523.

"Modern Fine Printing: The Black Art." Features books published over the last century that show examples of fine printing. Through Oct. 14. Special Collections, Olin Library, Level 5. 8:30 a.m.-5 p.m. weekdays. For more info., call 889-5487.

"Ford Beckman Selects." Features new works by Beckman, a New York-based artist, and selections by Beckman from the University's permanent collection, including works by Willem de Kooning and John Chamberlin. (An opening reception for this and two other shows will be held from 7-9 p.m. Fri., Sept. 7, in the Gallery of Art. Beckman will give a lecture at the opening.) Gallery of Art, Steinberg Hall, upper gallery. Through Oct. 7. 10 a.m.-5 p.m. Tuesdays through Fridays (will be open on Mondays, same time, after Sept. 3); 1-5 p.m. weekends. The gallery is closed Sept. 1 and 2. For more info., call 889-4523.

"Acquisitions of the '80s." Showcases nearly 50 of the finest artworks donated to the Washington University Gallery of Art. (An opening reception for this and two other shows will be held from 7-9 p.m. Fri., Sept. 7, in the Gallery of Art. New York-based artist Ford Beckman will give a lecture at the opening.) Gallery of Art, Steinberg Hall, upper gallery. Sept. 1-Oct. 7. 10 a.m.-5 p.m. Tuesdays through Fridays (will be open on Mondays, same time, after Sept. 3); 1-5 p.m. weekends. The gallery is closed Sept. 1 and 2. For info., call 889-4523.

"Work by New Faculty of the School of Fine Arts." Features work by Barbara Bendl-Markstein, graphic designer; Jennifer Colten, photographer; and Martin Ball, painter. Through Sept. 12. Bixby Gallery. 10 a.m.-4 p.m. Mondays through Fridays; 1-5 p.m. weekends. The gallery is closed Sept. 1, 2 and 3. For more info., call 889-4643.

"Oklahoma," a black and white photograph by Jennifer Colten is one of 20 objects in an exhibit at Bixby Gallery. The exhibit, which features work by three new faculty members — Colten, painter Martin Ball and graphic designer Barbara Bendl-Markstein — runs through Sept. 23. Bixby Gallery is in Bixby Hall. Gallery hours are 10 a.m.-4 p.m. weekdays and 1-5 p.m. weekends. The gallery will be closed Sept. 1-3 for Labor Day.

FILMS

Tuesday, Sept. 4

7 p.m. Dept. of Asian and Near Eastern Languages and Literatures Japanese Film Series, "Tampopo," directed by Juzo Itami, with English subtitles. Room 210 Ridgley Hall. Free. For more info., call 726-4449.

SPORTS

Saturday, Sept. 1

7 p.m. Women's Volleyball. WU vs. St. Louis U. Field House Gym.

Friday, Sept. 7

8 p.m. Women's Volleyball. WU Quadrangular. WU vs. McKendree College. Field House Gym.

Saturday, Sept. 8

Noon. Women's Volleyball. WU Quadrangular. WU vs. Rhodes College. Field House Gym.

5 p.m. Women's Volleyball. WU Quadrangular. WU vs. Simpson College. Field House Gym.

MISCELLANY

Thursday, Aug. 30

7-9 p.m. University College Writing Workshop in Poetry with Jennifer Atkinson, poet and fiction and non-fiction writer. Eight Thursdays through Oct. 18. $160. To register or for more info., call 889-6788.

Friday, Aug. 31

5:30 p.m. Hillel Dorm Shabbat with storyteller Annette Harrison. Wohl Center, 2nd floor.

Sunday, Sept. 2

Noon-2:30 p.m. Annual Hillel Picnic. Meet outside Shepley Hall at 11:45 a.m. to car pool.

Tuesday, Sept. 4

7-11 p.m. Performing Arts Dept. Open Auditions for "The Fifth Column," "Flea in Her Ear," "Danny and the Deep Blue Sea" and "Hello, Out There." Edison Theatre. (Also Wed., Sept. 5, same time). For info., call 889-5858.

Saturday, Sept. 8

10 a.m.-noon University College Writing Workshop in Fiction with Elizabeth Graver, fiction writer. Eight Saturdays through Oct. 27. $160. To register or for info., call 889-6788.

Assembly Series — *continued from p. 1*

Prizes." His editorial cartoons are syndicated in more than 300 newspapers and are also featured in animated form under the name "Peters Postscripts" on "NBC Nightly News."

A Washington alumnus, Peters will be grand marshal of this year's Homecoming parade. In addition to his editorial cartoons, he also draws a comic strip titled "Mother Goose and Grimm." The strip chronicles the adventures of bad-boy Grimm, a dog and a befuddled Mother Goose.

Thomas Lovejoy, assistant secretary for external affairs at the Smithsonian Institution, will speak Oct. 10 in May Auditorium. An environmentalist, Lovejoy originated the debt-for-nature swaps, which have helped several Third-World countries reduce their debt in exchange for preserving land.

Hemingway scholar Michael Reynolds will deliver the keynote lecture Oct. 17 in Edison Theatre for "Ernest Hemingway: The Man and the Myth," a four-day conference to be held Oct. 17-20 at Washington University. This conference will address the Hemingway mystique.

An editorial board member of the Hemingway Review, Reynolds has written six books and numerous articles on Hemingway, including *Hemingway: The Paris Years* (1989). Reynolds, a professor of graduate studies in the English department at North Carolina State University, received a Pulitzer-Prize nomination for his 1986 biography, *The Young Hemingway*.

Washington alumnus Harold Ramis will speak at 11 a.m. on Oct. 24. Ramis, a film director, screenwriter and actor, first gained national recognition as co-author of "Animal House," the 1978 John Belushi blockbuster film. Since then he has directed and co-written several popular films, including "Back to School," and was one of the stars of the film "Ghostbusters."

Emmy Award nominee and actress Ruby Dee will deliver the Black Arts and Sciences Festival/ Woman's Club Lecture Oct. 31. Dee, who starred with her husband Ossie Davis in the 1981 PBS series "With Ossie and Ruby," recently appeared in Spike Lee's film "Do the Right Thing." In addition, she has written plays, poetry, stories and essays.

Robert Jay Lifton, Distinguished Professor of Psychiatry and Psychology at the John Jay College of Criminal Justice, will discuss "Beyond Genocide — Learning From the Nazi Doctors" at the Holocaust Memorial Lecture Nov. 7. Lifton has played an active part in the formation of psychohistory, a field that studies the relationship between individual psychology and historical change. He is the author of the 1986 book *The Nazi Doctors: Medical Killing and the Psychology of Genocide*, which received the 1987 National Jewish Book Award. He is a founding member of International Physicians for the Prevention of Nuclear War, which won the 1986 Nobel Peace Prize.

"Women in Power: Is the View Different?" is the title of the 1990 Mr. and Mrs. Spencer T. Olin Conference. The Nov. 14 keynote address will be open to the campus community.

Robert E. Allen, chairman and chief operating officer of American Telephone and Telegraph Co., will deliver the 10th David R. Calhoun, Jr. Memorial Lecture at 4 p.m. Nov. 28 in May Auditorium. The title of his talk is "Five Centuries After Columbus: Exploring America's Place in the New World."

For more information on the lectures, call 889-4620.

Calendar Deadline

The deadline to submit items for the Sept. 13-22 calendar of the Washington University Record is Aug. 31. Items must be typed and state time, date, place, nature of event, sponsor and admission cost. Incomplete items will not be printed. If available, include speaker's name and identification and the title of the event; also include your name and telephone number. Send items to Andrew Cox, calendar editor, Box 1070, or by electronic mail to p72245AC at WUVMC.