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Jackson, Bradley among speakers in Assembly Series

Richard Wilbur, poet laureate of the United States from 1987-88, opened the University's Assembly Series Aug. 28 with a memorial lecture honoring Howard Nemerov.

Nemerov was the Edward Mallinckrodt Distinguished University Professor Emeritus of English and Distinguished Poet in Residence at Washington University for 22 years. He died July 5, 1991, after a long battle with cancer. He was 71.

During the memorial lecture, Wilbur read selections of Nemerov's poetry, as well as some of his own. Wilbur, who won the 1989 Pulitzer Prize for his book *New and Collected Poems*, presented the lecture at 11 a.m. in Graham Chapel.

This year's lecture series also will include talks by Nigerian writer Wole Soyinka, winner of the 1986 Nobel Prize in literature; John Singleton, creator of the film "Boyz n the Hood"; and the Rev. Jesse Jackson, a former Democratic presidential candidate.

The Assembly Series, now in its 32nd year, offers free lectures to the University community and general public. Unless otherwise noted, all of the lectures are held at 11 a.m. in Graham Chapel.

Daniel Schorr, senior news analyst for National Public Radio (NPR), will discuss "America in the Time of



Daniel Schorr

George Bush" when he delivers the Fall Honors Lecture Sept. 4. Schorr is one of the last of Edward R. Murrow's legendary CBS team members still fully active in journalism. He

currently interprets national and international events for NPR and television, and writes for newspapers and magazines.

A former senior correspondent for Cable News Network, Schorr is known for his journalistic integrity and independence. His exclusive reports and on-the-scene coverage at the Senate Watergate hearings earned him three Emmys. Among other honors, he was elected to the Hall of Fame of the Society of Professional Journalists.

Stanley Fish, who serves as Arts and Sciences Professor of English and chair of the department, as well as professor of law at Duke University, will speak Sept. 11. Fish will discuss "Free Speech Doesn't Exist, and It's a Good Thing, Too." Author of more than 80 articles and books, including *Is There a Text in This Class? The Authority of Interpretive Communities*, Fish is known for his critical theories that base the authority of texts in the community of readers. He asserts that meaning is not discovered by readers, but created by them.

The Rev. Jesse Jackson, a Democratic presidential candidate in 1984 and 1988, will deliver the Benjamin E. Youngdahl Lecture at 3 p.m. Sept. 17 in the Field House. As president of the National Rainbow Coalition Inc. — a

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Armed with snacks, sodas and sleeping bags, freshman campers are ready to brave their first night at Washington University.

'Closing the gap'

Students meet friends, learn about college life at Freshman Camp

Three people walked slowly down the stairs in Mallinckrodt Center. On the floor below, groups of students already were sitting in circles, laughing and sharing stories.

All three people glanced around cautiously. First down the stairs was a woman in her late teens. Her parents followed. The young woman's eyes scanned the room, looking for a familiar face. She appeared nervous.

But her feeling of apprehension was short-lived. Soon, she was welcomed into one of the small groups of students.

Her parents, who once looked concerned, relaxed a bit. As they watched the young woman become more animated, telling stories of her own, they began to smile. Their daughter, a college freshman at her new home away from home, was fitting in.

She was participating in a "getting-to-know-you" small group session with other freshmen on their first day at Washington University. The discussions were part of Freshman Camp, an orientation before the official Washington University orientation for the entire class. Freshman Camp, sponsored annually by the Campus Y, was held Aug. 20-22. For the 149 freshmen who participated, it gave them three days to meet their classmates, learn their way around and move into the residence halls before the rush.

During Freshman Camp, wiser, more experienced sophomores, juniors and seniors serve as counselors. For three days, the freshmen embark on all sorts of activities designed to bring them closer together.

During the small group sessions, the students answered questions like "What was your nickname in high school and why?" "If you could be any animal, what would you be?" and "What's your favorite holiday and why?"

Within a few short minutes, freshmen who were standing rigid against the wall, hands in pockets, began talking about why they'd like to be an elephant.

As the parents continued watching their daughter, the father commented,

"One of the things that kids fear most is 'Will they fit in?' 'Will they manage?' This is a great idea of being able to meet other kids their age and older kids, informally, where they can talk. Camp itself has that feeling of closing the gap. Climbing the mountains and crossing the river brings people together," he said.

The father, who at first gave his name for this article, later changed his mind and asked not to be identified. "No ... I just want to let her go her way. This is her time. I'll just slip into the background here. I think it's best that way."

As their daughter and the other freshmen started heading across campus for games, the parents stayed behind.

Later that evening, the freshmen met in several of the residence hall lounges for a slumber party. In years past, the freshmen stayed overnight in

their rooms, but counselors found that the new students have a tendency to feel lonesome.

"When I was a camper, I remember I was the only one on my floor," said Michael Cordell, a junior counselor. "We got done with everything around 10:30 p.m. and I had a lot of nervous energy. You don't want to be alone."

The next day, everyone boarded buses for Trout Lodge, the YMCA of the Ozarks 80 miles south of St. Louis. On the way, campers played a game in which they kept changing seats. "Every five minutes, you meet a new person," Cordell said. "We rotate and go all the way around the bus."

Cordell noted that some of the activities might be difficult for introverts, but he added that dealing with shy people was included in counselor training. "We discuss what to do if a

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New Edison season features entertainment for everyone

Edison Theatre's 1991-92 season promises something for everyone. Now in its 19th season, Edison offers a wide selection of outstanding music, dance and theatre in three different series — mainstage "OVATIONS!" "Stage Left" and "ovations! for young people."

The mainstage series opens Sept. 20 with a one-night appearance by singer, actor, cabaret performer Mandy Patinkin. Patinkin, known for his sensitive musical style and versatile acting ability, will perform his solo show "Dress Casual." Newsday calls his performance "an absolutely terrific 90 non-stop minutes in the theater."

Edison will celebrate The Year of Tibet on Oct. 25 and 26 with the Lhamo Folk Opera of Tibet. The group's poetically moving, often comic expression of Tibetan myths is lush with shimmering silk costumes, striking masks and the resonance of drums and cymbals. This event is presented in association with the

Department of Asian and Near Eastern Languages and Literatures, the Asian Art Society and Friends of Tibet.

Legendary jazz percussionist and composer Max Roach and the Uptown String Quartet will perform Nov. 1 and 2. The shows will feature everything from jazz, blues and gospel to the latest sounds from contemporary black composers. Roach and the Uptown String Quartet are presented in association with the Department of African and Afro-American Studies and the Contemporary Jazz Society of St. Louis. Roach also will speak on "American Music: Perspectives" Nov. 1 in Edison Theatre, as part of the University's Assembly Series.

On Nov. 8, 9 and 10 the Batsheva Dance Company from Israel brings its passionate, risk-taking dance to St. Louis for the first time in 20 years. Originally trained by Martha Graham, the troupe combines the grace of ballet with the eloquent weight of

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Taiwanese vote Wu's book most profoundly influential from 1950s

A book that has never received a major award in its native land recently was voted the most profoundly influential book of the 1950s by the readers of the Taiwan-based newspaper China Times, the largest daily paper in that country.

Song Never To End, written by Washington University's Nelson Wu, Ph.D., received some 32,500 votes in the newspaper poll, titled "These are the books I grew up with: The ones that influenced me the most profoundly, published in the last 40 years." Readers were asked to vote on all books, fiction and non-fiction, Chinese or foreign works in translation. Only ancient classics were excluded. The votes were counted decade by decade, 1950-90. More than 100,000 votes were tallied over the four-week poll.

Although pleased and honored by the recognition, Wu, Edward Mallinckrodt Distinguished University Professor Emeritus of the History of Art and Chinese Culture, also is a little surprised.

"I wrote this book for myself when I was a young man, as sort of an exercise. I was not in a hurry to get a large audience, but I am humbled that it has become so popular," he said.

The 1958 book, which has never been translated, has sold almost 500,000 copies in more than 50 printings.

Wu wrote *Song* under the pseudonym "Lu Ch'iao." *Song* is a poetic story about the friendships between four young people during the Second Sino-Japanese War. Wu began the book in 1943, during the war, when he was a young man the same age as the book's characters.

"The book is very important to young adults in Taiwan," says Joseph Allen, Ph.D., associate professor of Chinese language and literature. "There is probably no single book in English that has had a similar affect on its readers, though perhaps a young boy reading Hemingway or *Catcher in the Rye* would be similarly affected. Everyone in Taiwan knows the book and it is sort of a touchstone for people of that age."

The book is multifaceted and difficult to categorize. "I don't like to tell people what it is about exactly because I want them to get their own

message from it," says Wu. "This book should be many things to many people."

The book's title refers to Wu's wish that the "song" of rich Chinese culture he had grown up with would never die. "The Sino-Japanese War was a desperate and dangerous time and the book is a prayer, a 'pleading' we say in Chinese, that our culture will endure."

But even when *Song* was written, Chinese culture was being threatened by an educational system that was becoming very regimented. The government decided who went to which institution and what they studied, based on test scores. This made people who were intellectually curious suspicious of universities, because they reflected so much governmental control.

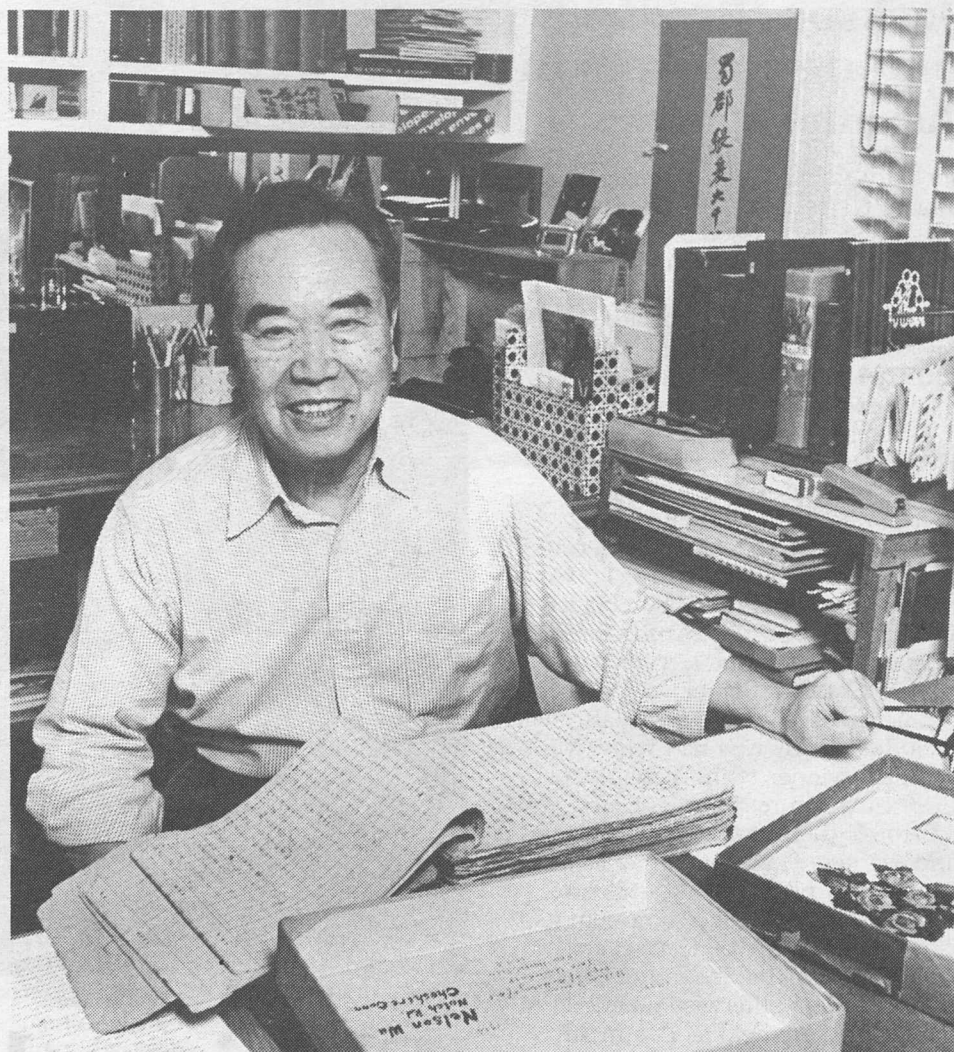
The book was Wu's effort to question that type of education, to celebrate China's powerful literary traditions and to urge young people to become more broadly educated. For this reason, *Song* is one of the richest collections of Chinese vocabulary and idioms, according to scholars of Chinese literature.

Wu never wrote the book with the intention of publishing it. When he first began the book, he was living in very harsh conditions. During the war, people lived in small, primitive refugee huts with a cooking stove outside. Still, everyone was very optimistic about the war and many Chinese have very happy memories of this time of their lives, Wu notes. The book also celebrates that sense of exhilaration, he added.

"Although the Japanese occupied half of our country, I always felt that our population was so large that even if we put our arms down and the Japanese came into our country they would never be able to see each other," Wu says.

It was in these heady circumstances that Wu wrote his great work.

"I was a writing machine," he told one interviewer. "The story just flowed out of me in one draft, with some scissoring and pasting. The



Nelson Wu, the Edward Mallinckrodt Distinguished University Professor Emeritus of the History of Art and Chinese Culture, also is a best-selling author known to the Taiwanese as Lu Ch'iao.

whole thing was some 550,000 words; I wrote over 10,000 words on the longest day."

Wu wrote despite the fact that supplies were so low he had to dilute his ink with tea and write on the back of government forms, which were the only paper of uniform size available.

Wu left the country on Dec. 31, 1944, before he had finished the manuscript. In case the manuscript was confiscated by emigration officials, Wu memorized the story. When he arrived in New Haven, Conn., he finished the book.

For 14 years, the manuscript passed from hand to hand, read by many of Wu's friends. "It was almost lost several times," says Wu. "Finally, an older schoolmate made me realize I should publish it."

Wu took the manuscript to Hong Kong in 1958, which at that time was the only place that could print a Chinese-language book of that size. That first edition instantly sold out and numerous pirated versions began to appear, each with a different title and a different author. In an attempt to limit the number of pirated editions, Wu's publisher put out a "popular" (less expensive) edition in 1975, which sold more than 12,000 copies in the first two weeks.

Although Wu, as Lu Ch'iao, is a celebrity in Taiwan and parts of China as a best-selling author (he also has published a collection of stories titled *Son of Man* and numerous essays), the multitasking professor is better known among his colleagues here as an outstanding scholar of art history.

— Debby Aronson

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camper isn't talking," he said.

Besides arriving a day early to prepare, the counselors met monthly to discuss every detail. "We have a whole lot of committees — for the food, games, workshops. We give reports about what we've worked on. We even have a shirt committee to decide what shirts the counselors will wear. Every year, we vote on whether we want tie-dyed T-shirts, but it always gets vetoed at the last minute."

This year, 31 upperclass students served as counselors. Despite the time involved, Cordell said he believes counseling is worthwhile. Freshman Camp gives the incoming students a sense of security. Counselor Shubi Deoras said the question asked most often by freshmen is "Where do we go for ... ?" You fill it in," she added, laughing. After a few days on campus, Cordell said the freshman campers become a resource for other freshmen. "They think they're in control because everyone asks them where things are," he said.

Cordell added that he met one of his best friends at Freshman Camp two years ago. After shared experiences at Trout Lodge, the freshmen can't help feeling a little closer. The day's activities include volleyball, tennis, boating, water balloon relays

and square dancing.

"I learned how to square dance again. It's a great way to introduce yourself to each other as you do-si-do," said Andy Hovlan, a freshman who hails from a suburb outside Chicago.

In the evening, there is a cook-out and everyone sits around the fire and tells ghost stories.

"I think it's great," said Amy Lit, a junior counselor. "When I first came here, I didn't know anybody. They'll already know 150 people. Besides knowing just freshmen, they'll know sophomores, juniors and seniors, which is good if they need rides or advice about classes."

Sophomore counselor Sarah Boyce said meeting people and making friendships right away is important. "People get lazy as school goes on. They're not as eager. This way, you get off to a good start with a great foundation," she said.

Several of the freshmen commented that the experience helped them make friends and feel more comfortable about college life in general. "I didn't know anybody. Now I know faces," said Sameer Talcherkar, a freshman pre-med major. "I can relate. We've been to Freshman Camp. It was an icebreaker. And I won't be

bumbling around with a lot of luggage, trying to find my way around. It's made it a lot easier."

Perhaps the most beneficial of all the activities are the workshops that discuss relaxation techniques for stress management, differences, dealing with new freedoms, religion, communication, assertiveness, sexuality and student activism. Led by University professors and staff members, campus ministers and Campus Y staff, the workshops help freshmen examine their priorities and prepare them for what lies ahead.

Along the way, counselors also try to give sound advice to the freshmen. "One of the big questions they have is balancing time," Cordell said. "They all did so much in high school ... student council and so forth. They want to do so much and ask how they can balance it all. I tell them to make sure they rest. There's a lot to do at Wash. U., but just make sure time is balanced."

Lit agreed. "I would tell them to take it easy and have fun. Take advantage of everything here — academically, socially — but take it one day at a time," she said.

— Deborah Parker

21st Century report to be discussed

The Senate Council and the Committee to Prepare for the 21st Century have scheduled an open faculty meeting Sept. 10 to discuss the draft report titled "A University Agenda." The meeting will be held at 4 p.m. in Room 118 Brown Hall.

The draft report, which was issued at the end of the spring semester, contains recommendations on how to best prepare for the challenges of the 21st century.

"The committee has received many written comments from all parts of the University community," said Provost Edward S. Macias, Ph.D. "We are heartened by the response and by the sincere interest in discussion of plans for the future."

The committee has extended the University-wide comment period for the report to Sept. 27. Written comments should be sent to Provost Macias at Campus Box 1080.

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modern dance for what the Washington Post describes as "athleticism, energy, and hard-sell urgency that makes them extremely compelling to watch." Batsheva's appearance is co-sponsored by Dance St. Louis.

Aequalis, a chamber group that champions new American music, will perform for one night only on Nov. 17. The ensemble — cellist Elizabeth Mohr, pianist Fred Bronstein and percussionist Michael Parola — performs works that Musical America calls "a new type of chamber music ... works that are as light and melodic as a Haydn string quartet and as richly varied in texture and color as a tone poem by Richard Strauss." Aequalis' performance is presented in association with the New Music Circle and the University's Department of Music.

Pilobolus Dance Theatre, which will perform Jan. 24-26, has spent 20 years defying all conventional notions of movement by combining physical theatre, music, dance and acrobatics into startling choreography. The dance troupe's Edison appearance is co-sponsored by Dance St. Louis.

The Black Light Theatre of Prague is featured as this season's special family event. The troupe will give three performances of the Czech version of "Alice in Wonderland" Feb. 7 and 8, including a special full-length performance for the whole family at 2 p.m. Feb. 8.

The inimitable Spalding Gray is back by popular demand Feb. 21 and 22 for two nights of outrageous storytelling, stand-up comedy and verbal virtuosity that has become his trademark. The Riverfront Times says "an evening with Spalding Gray is as funny, moving and powerful as any you can experience in the theatre." Gray's performance is presented in association with the Contemporary Arts Society of the St. Louis Art Museum.

On March 6 and 7 "My Children! My Africa!" Athol Fugard's riveting new play from South Africa, confronts a central question facing that country — is violence necessary to attain freedom? Fugard, author of "Blood Knot" and "Master Harold ... and the Boys," has won international recognition as a pivotal dramatic voice of South Africa. Both performances of "My Children!" are dedicated to the Friends of the Edison.

"New Wave" juggler Michael Moschen will animate the inanimate April 24 and 25. Moschen magically wraps the audience in a world of balls, rings, hoops and spheres that fly, float and spin with grace and haunting beauty. Moschen's mystical performances are co-sponsored by Dance St. Louis.

Tickets to "OVATIONS!" events are \$18 for the general public; \$14 for senior citizens and University faculty and staff; and \$9 for students.

The second season of "Stage Left" once again offers a series of adventurous, innovative performances in the intimacy of the Mallinckrodt Center Drama Studio. Rachel Lampert, autochoreographer, will open the season Oct. 4 and 5. "The Woody Allen of modern dance" sweeps audiences into her life for an evening of irreverently funny and poignant dance drama.

Virtuoso accordionist Guy Klucsevsek brought the audience to its feet on his last visit to Edison Theatre in 1989. His return visit Jan. 17 and 18 will feature selections from his extraordinary repertoire of works for the accordion that redefines that instrument's range and versatility.

On April 10 and 11, the Flirtations



Cabaret performer Mandy Patinkin will open the mainstage "OVATIONS!" series with his solo show "Dress Casual" Sept. 20 in Edison Theatre.

will perform, a capella, their own arrangements of popular favorites, lifting the music into the realm of political and social consciousness. Calling themselves "gay all-American boys," the Flirtations promise a toe-tapping, thought-provoking good time. The five-man ensemble also will present Flirtations originals when they perform in the Drama Studio.

Tickets to "Stage Left" are \$10 for the general public; \$8 for senior citizens and University faculty and staff; and \$6 for students.

"Ovations! for young people" kicks off its series for the "young-at-art" at noon and 2 p.m. Sept. 28 with a special performance of "The Boy Who Wanted to Talk to Whales" by the Robert Minden Ensemble. The four-person troupe from Canada uses vacuum-cleaner hoses, saws, bottles and conch shells to tell the musical story of a boy compelled by a dream to sing with the whales.

Theatreworks USA returns Jan. 19 for the third year in a row with a musical voyage through the uncharted seas with Christopher Columbus. This rousing tribute to Columbus' discovery 500 years ago is staged by the creators of previous Edison blockbusters "The Velveteen Rabbit" and "Play to Win: The Story of Jackie Robinson."

Pilobolus Dance Theatre will give

a special one-hour version of its witty acrobatics Jan. 25. The troupe's antics will delight young theatregoers as Pilobolus members twist and intertwine their bodies into life-size balloon sculptures.

The magical Grimms fairy tales will come to life on stage when the Illustrated Theatre Touring Company performs Feb. 23. The ensemble uses mime, clowns and other unconventional methods to bring these classic children's tales to life.

On April 26 wild and wacky juggler Michael Moschen will perform a special one-hour show.

All "ovations! for young people" performances are approximately one hour and begin at 2 p.m., unless otherwise noted. Tickets for "ovations! for young people" are \$7. Subscription rates for all three series also are available.

All Edison Theatre performances are wheelchair accessible, and the Sennheiser Infrared Listening System is offered at no charge for hearing-impaired patrons.

Edison's season is funded in part by grants from the Missouri Arts Council, the Regional Arts Commission, the National Endowment for the Arts and the Arts and Education Council.

For more information, call 935-5251.

International Office seeks host families

The International Office is seeking 75 families to participate in the Host Family Program for the 1991-92 academic year.

The Host Family Program is designed to promote cultural exchange between the University's international students and American families. Host families do not provide living accommodations for the students, but do give them a taste of American life through monthly gatherings such as family dinners, picnics and trips to the theatre and sports events. The families also help students become oriented to the local community.

Sharing experiences enriches the lives of both the students and the host families. Several host families, for example, assisted with the wedding of Xiaoqing Yang, who is pursuing a doctorate in chemistry at Washington

University, and her husband, Yun-Feng Xie, who received a doctorate in chemistry from the University on Aug. 20. The couple were married this past May and held a reception at Stix International House.

In past years, the hosts have ranged from single parents to three-generation families. Students and families participate in the program for a minimum of one academic year and are paired according to common interests.

During the 1990-1991 academic year, more than 800 foreign students from 72 countries attended Washington University. The University's largest number of international students were from China and Taiwan.

For more information, call 935-5910.

Narasimhan named Siteman Professor in Marketing

Chakravarthi Narasimhan, Ph.D., has been appointed as the first Philip L. Siteman Professor in Marketing at the John M. Olin School of Business, Dean Robert L. Virgil, D.B.A., has announced.

Narasimhan joined the Olin School in 1988 after seven years as a faculty member at the University of Chicago. His research interests are in the economic analysis of marketing problems, with special emphasis on coupon and price promotions, market share models, new product introduction and competitive marketing strategies. He has a doctorate in marketing and a master's in operations research from the University of Rochester. He also holds degrees in physics, electronics and computer science from the Indian Institute of Technology in India.

"Narasimhan's research is widely recognized as first-rate by the very top scholars in marketing," Virgil said. "He has been instrumental in the building of a strong marketing program at Olin."

The Siteman professorship is made possible by an endowment fund established by Alvin J. and Ruth Siteman of St. Louis. The chair is named in honor of Siteman's late father, Philip L. Siteman, founder of Site Oil Co. and a graduate of the University's School of Engineering.

Alvin J. Siteman has been a Washington University trustee since 1985. He is president of the Siteman Organization, a real estate management and development company, and of Site Oil Co. and Flash Oil Corp., a chain of gas station and convenience stores in the Midwest and South. He also is chairman of the board of Mark Twain Bancshares Inc.

"Al and Ruth Siteman have given much of themselves to making St. Louis and Washington University better, as did Al's father, Phil," Chancellor William H. Danforth said. "The Siteman's support for a professorship in marketing reflects their conviction that having a distinguished business school at the University is an important asset to St. Louis."

Senior citizens needed for highway sign experiments

The Aging and Development Program needs people over age 65 to participate in a study on how elderly drivers perceive highway signs. Only individuals who have a valid driver's license are eligible to participate.

Volunteers will be paid \$10 for about one hour of experiments, which will be conducted in the psychology laboratories at the University.

The study hopes to determine what aspects of highway signs are problematic for the older driver, notes the study's director and post-doctoral fellow, Linda Ball, Ph.D., who adds that the goal is to reduce the risks faced by older drivers.

"When asked, older adults often complain that they do not see highway signs in time to react appropriately," Ball says. "It has been estimated that 60 percent of automobile accidents involving older drivers can be attributed, in part, to the failure to obtain necessary information."

For information, call 935-6546.



C. Narasimhan

NOTABLES

William R. Caspary, Ph.D., associate professor of political science, had his article "Ethical Deliberation as Dramatic Rehearsal: John Dewey's Theory" published in the spring 1991 issue of Educational Theory. He presented a lecture on "Democratic Theory, Social Movements, and Conflict Resolution" at the Center for Conflict Analysis and Resolution at George Mason University. His paper on "John Dewey and Classroom Democratization" was presented at the annual meeting of the Conference on College Composition and Communication in Boston. Another paper, "Democratic Theory and Conflict Resolution: A Human Needs Approach, From a Contextual Orientation," was presented at the National Conference on Peace Making and Conflict Resolution.

Roy Curtiss III, Ph.D., chair and George William and Irene Koechig Freiberg Professor of biology, presented the inaugural Smiley Seminar at the University of Kansas and served as a Distinguished Lecturer in Molecular Biology at Louisiana State University Medical Center. He also presented the Stuart Mudd Memorial Lecture at the Eastern Pennsylvania branch of the American Society for Microbiology. He gave an invited presentation at the International Symposium on Molecular Pathogenesis of Gastro-Intestinal Infections in Helsingor, Denmark. He presented an invited paper at the International INSERM Symposium on Immune Response to Proteins with Recombinant Epitopes, Perspectives for Vaccines, in Bischenberg, France, and at a WHO-sponsored Symposium on Local Immunity in Reproductive Tract Tissues in New Delhi, India. Curtiss was re-appointed to another five-year term as editor of the journal Infection and Immunity, and elected a fellow of the American Association for the Advancement of Science. He also was chosen to serve as a member of the board of directors of the American Type Culture Collection and appointed to the review panel on Undergraduate Biological Sciences Education of the Howard Hughes Medical Institute.

Ronald G. Evens, M.D., Elizabeth E. Mallinckrodt Professor of Radiology, head of the Department of Radiology and director of the Mallinckrodt Institute of Radiology, received the 1991 Alumni Achievement Award given by the Washington University Medical Center Alumni Association.

Thomas B. Ferguson, M.D., assistant professor of surgery, was presented with the Distinguished Service Award "in recognition of outstanding contributions" to the Society of Thoracic Surgeons at the annual meeting in San Francisco. He is the seventh member to receive this honor in the society's 27-year history. A charter member of the organization, he has served on numerous committees and, in 1977, as president. He is currently editor of The Annals of Thoracic Surgery, the society's official journal. The society, with 3,111 members worldwide, is the largest scientific group devoted to the specialty of thoracic and cardiovascular surgery.

Marion A. Guck, Ph.D., assistant professor of music theory, presented a paper titled "Analytical Fictions" at the annual meeting of the Society for Music Theory in Oakland, Calif. At the same meeting, **Robert Snarrenberg**, instructor in music theory, presented a paper titled "Myth and Theory: Stories for Ourselves" and gave a paper as part of a special session on the writings of James K. Randall.

Raymond L. Hilgert, D.B.A., professor of management and industrial

relations, was the keynote speaker at a conference of the Gateway Chapter of the Industrial Relations Research Association, held in Collinsville, Ill. The title of his speech was "Arbitration: Where We've Been and Where We're Going."

Karl Kaltenthaler, a doctoral student in international political economy, has been named the first winner of the 1990 John F. Seiberling World Law Prize. The prize, which includes a \$1,500 cash award, was granted for the best paper submitted on the topic of institutional approaches to the integration of Eastern and Western Europe. Kaltenthaler's paper was titled "European Environmental Integration: A Policy Study for a New European Environmental Regime."

Beverly Krause, a certified registered nurse anesthetist (CRNA), director of CRNA activities and educational director of the Nurse Anesthesia Program at the University, was the only nurse anesthetist among 13 anesthesiologists recently appointed to the U.S. Pharmacopeial Convention Inc. (USP) Advisory Panel on Anesthesiology. The USP is an independent, nonprofit organization composed of delegates from academia, industry, government, state and national associations concerned with medicines. It also sets the legally enforceable standards for drugs in the United States.

Michael G. Morgan, photographer in the department of anatomy and neurobiology, had three photos featured in a two-page layout about the Rainbow Family in the June 1991 issue of Esquire magazine.

Robert P. Morgan, Ph.D., Elvera and William Stuckenberg Professor of Technology and Human Affairs, recently was appointed to serve on an advisory committee to the National Science Foundation (NSF) on Data and Policy Analysis. The objectives of the committee include providing guidance concerning how the NSF's divisions of Science Resources Studies and Policy Analysis and Research might more effectively and credibly respond to current and emerging science and technology policy issues. He also chaired a session at the annual meeting of the American Association for the Advancement of Science in Washington, D.C., on "Cleaning up the Mess at the DOE Nuclear Weapons Complex." Morgan presented two papers at the Waste Management '91 conference in Tucson, Ariz. — one on managing high-level waste, the other on managing transuranic waste at the DOE Nuclear Weapons Complex. His work on radioactive waste management was performed as part of a larger Office of Technology Assessment (OTA) study. He also spoke on "R&D, Technology and the Cleanup: The OTA Report" at the second annual DOE Weapons Complex Applied Research and Technology Colloquium held in Phoenix, Ariz.

Meir Rosenblatt, Ph.D., Thomas C. Whitmarsh Visiting Professor of Operations and Manufacturing Management, was named department editor for the facilities design/material handling category of Transactions, published by the Institute of Industrial Engineers.

Steven M. Rothman, M.D., associate professor of pediatrics, neurology and anatomy and neurobiology, delivered a lecture titled "Different Mechanisms of Cell Death in Neurological Disease and Development" at the annual meeting of the Canadian Neurological Society in Halifax, Nova Scotia.

Philip D. Stahl, M.D., director of the Division of Biology and Biomedical Sciences and Edward Mallinckrodt Jr. Professor and head of the Department of Cell Biology and Physiology, was awarded a training grant from the National Institutes of Health for training division Ph.D. students in the areas of cell and molecular biology. The grant, which covers the period from July 1991 to June 1992, is worth \$564,192.

Richard G. Stoker, Ph.D., director of the Central Institute for the Deaf, wrote an article titled "Alexander Graham Bell: An Ally of the Deaf," which was published in Voice, a national magazine for the hearing impaired.

Yi-Ding Wang, a senior majoring in piano, received a \$400 prize from the Ladies Friday Morning Music Club, a nationally affiliated organization whose purpose is to help young musicians and music students.

Ray W. Witmer Jr., a graduate student in the Sever Institute of Technology, has been awarded the 1991 Stupp Bros. Bridge and Iron Co. Scholarship. The

\$5,000 scholarship, awarded on the basis of scholastic record, overall career objectives, a sample analysis/design problem solution and faculty recommendations, will help support his educational costs as he completes his graduate courses and pursues a doctorate. Stupp Bros. Bridge and Iron Co. is a major Midwestern producer of fabricated structural steel. The scholarship program is administered by the American Institute of Steel Construction Inc., a non-profit association representing and serving the fabricated structural steel industry in the U.S.

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 p72245DP at WUVMC. Please include a phone number.

Social work faculty ranked #1 in scholarly productivity

Washington University's School of Social Work faculty was the most published social work faculty in the country during an 11-year period, according to a recently published study.

The faculty of the George Warren Brown (GWB) School of Social Work was ranked number one among the nation's social work faculty in its overall scholarly productivity during the years 1977-1987, according to the study.

In addition, when adjusted for faculty size, GWB consistently came in second over three five-year time periods — 1972-76, 1977-1981 and 1983-87. No school consistently came in first over these three time periods.

Kevin J. Corcoran, associate professor at the University of Houston, and Stuart A. Kirk, professor at Columbia University, conducted the study, which looked at different types of journals and examined how a school's productivity rank varied by type of journal, faculty size and over time.

According to the study, 86 articles by 24 GWB faculty were published in academic journals between 1977-1987. The University of California-Berkeley came in second in faculty productivity with 14 faculty members publishing 79 articles during that same time period. The University of Wisconsin-Madison,

with 28 faculty members publishing 78 articles, was third in the rankings.

The academic journals in which the articles were published included Administration in Social Work, Journal of Education for Social Work, Journal of Social Service Research, Journal of Sociology and Social Work, Social Service Review, Social Work, and Social Work Research and Abstracts.

The study appeared in the Journal of Social Work Education (Vol. 26, No. 3), which is published by the Council on Social Work Education. The council is the national accrediting body for all baccalaureate and master's programs in social work in the United States.

"The GWB faculty is one of the most scholarly in the nation," said Shanti K. Khinduka, Ph.D., dean of the social work school. "The faculty members' contributions to the advancement of knowledge have been significant and consistent. Now, they are also recognized by their peers throughout the country."

"The quality of the faculty is one of the most critical factors in the excellence of any program. We are very fortunate to have a faculty that is equally committed to excellence in teaching," Khinduka said.

NEWSMAKERS

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.

A high-level commission assembled by President Bush to examine the issue of affordable housing assailed the red tape that prevents many Americans from buying or renting the home they want. But Daniel Mandelker, J.S.D., Howard A. Stamper Professor of Law, says the commission's report is more of a political attack on the system than a practical guide to reforming it. His comments appeared in the July 9 editions of the *Chicago Tribune*, *Kansas City Star*, *Grand Rapids (Mich.) Press*, *Oklahoma City's Daily Oklahoman*, and many other papers across the country.

The United States is sinking into a political morass, says Robert H. Salisbury, Ph.D., Sidney W. Souers Professor of American Government, in his opinion piece that appeared in the June 18 *Roanoke Times & World News*. "There is a stalemate in Washington, trench warfare between Democrats and Republicans, liberals and conservatives. Each side commands institutional high ground: the Democrats hold Congress, and the Republicans control the executive branch. Apparently, neither side can be dislodged by electoral means, and so the cold war drags on. As the stand-off continues, some Americans are proposing to alter the Constitution and end the stalemate." But before rushing to reform the Constitution, he says, we should examine the experiences of other nations, such as England and Italy, and consider a different solution.

Frost, King receive research fellowships

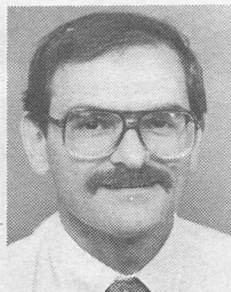
The KPMG Peat Marwick Foundation has awarded \$25,000 fellowships to Carol Frost, Ph.D., assistant professor, and Ronald R. King, Ph.D., associate professor, both of accounting at the John M. Olin School of Business.

"It is our pleasure to award the outstanding efforts of Carol Frost and Ron King," said Vincent J. Cannella, the managing partner of the St. Louis office of KPMG Peat Marwick. "The accomplishments of all of the winners of the KPMG Peat Marwick Fellowships are of the highest quality and we are proud to acknowledge them. We look forward to continuing our support of these superior research-minded professors."

Frost has received a KPMG Peat Marwick Research Fellowship to pursue a two-year research project in international accounting and auditing issues. The foundation selected this year's 10 research fellows from 55 applicants.



Carol Frost



Ronald R. King

King has been granted a three-year KPMG Peat Marwick Faculty Fellowship to continue research he began as a 1989-1991 KPMG research fellow. His award is one of seven faculty fellowships the foundation granted this year to recognize "outstanding achievement" by past research fellows.

Frost is the third Olin School faculty member to earn a KPMG research fellowship. Gregory Waymire, now associate professor of accounting at Emory University, won a KPMG research fellowship while at Olin in 1987.

Assistant dean at law school appointed

Mark W. Smith, J.D., a former associate at the Bryan, Cave, McPheeters & McRoberts law firm in downtown St. Louis, has been appointed assistant dean for student affairs at the School of Law, according to Dorsey D. Ellis Jr., J.D., dean.

Smith, a 1986 graduate of the law school, "brings to this position the



Mark W. Smith

benefits of a strong academic record, six years' experience in private practice, ongoing involvement with the School of Law and the University, a natural empathy and an outgoing personality," said Ellis. "I know he will do an outstanding job in this position."

Smith succeeds Debra Carlson

Wood, J.D., who accepted a position as vice president and dean of students at Coe College in Cedar Rapids, Iowa.

At Bryan, Cave, McPheeters & McRoberts, Smith specialized in labor and employment law with an emphasis on litigation. He began working at the firm in 1986 after graduating from the law school, where he was an associate editor of the school's Journal of Urban and Contemporary Law. As an adjunct professor at the University from 1986 through 1988, he taught legal research and writing to the law school's first-year students. He received a bachelor's degree, cum laude, in government from Harvard University in 1982.

Smith is a board member of the Downtown Children's Center, vice president of the Harvard Club of St. Louis, and a member of the Mound City Bar Association and the Fourteenth Ward Democratic Club.

Introductions to new faculty

The Record is running a series profiling new faculty on the Hilltop and Medical campuses.

James Bashkin, Ph.D., joined the faculty in June as an assistant professor of inorganic chemistry. He comes to the University from the Monsanto Corporate Research Laboratory, where he was a research specialist. He received his bachelor's degree in chemistry from the University of California at Irvine and his doctorate in organometallic chemistry from Oxford University. In 1984-85 he was a National Institutes of Health postdoctoral fellow at Harvard University, and he has twice won the Monsanto Achievement Award for Research.

Robert F. Henke, Ph.D., assistant professor of drama, comes to the University from the University of California at Berkeley, where he was a research assistant in the comparative literature department. He received his bachelor's degree in philosophy from Yale University in 1977 and his master's and doctoral degrees from the University of California at Berkeley in 1984 and 1991, respectively.

His research interests include Italian tragicomedy and its influence on Shakespeare's late plays. He also has extensive experience as an actor in the Bay Area of California. His appointment became effective July 1.

David F. Kuhns, also an assistant professor of drama, was an instructor

at the Pittsburgh Playhouse Theatre School before coming to the University. He received his bachelor's degree in 1970 and his master's degree in 1972, both in English literature, and another master's degree in 1982 and his doctorate in 1988, both in theatre arts. He received all his degrees from the University of Pittsburgh. His research interests include performance and dramatic literature theory and modern German theatre. He is particularly interested in Frank Wederkind, a turn-of-the-century German playwright and actor. His appointment became effective July 1.

Bruce C. Petersen, Ph.D., associate professor of economics, comes to Washington University from the Federal Reserve Bank of Chicago, where he was a senior economist. He also has worked as a consultant for the bank and for the U.S. Department of Energy. His research interests are industrial organization, public finance and microfoundations of macroeconomics. His teaching background includes seven years as an assistant professor at Northwestern University and three years as a teaching assistant at Harvard University. A member of the editorial board of the Journal of Small Business Research, Petersen received a bachelor's degree in economics from Northern Michigan University in 1976 and a doctorate in economics from Harvard University in 1981.

Assembly Series

continued from p. 1

progressive political organization headquartered in Washington, D.C. — he hosts his own television program, and writes a syndicated newspaper column.

Political and business analyst Kevin Phillips will speak on "Politics of Rich and Poor" Sept. 25. He is author of the best-seller *The Politics of Rich and Poor: Wealth and the Electorate in the Reagan Aftermath*. In addition, he is a regular contributor to the Wall Street Journal and a political commentator for NPR and CBS. In 1992 he will serve, for the third consecutive presidential election, as the campaign analyst for CBS.

Medieval scholar Peter Brown, Rollins Professor in History at Princeton University, will deliver the Edward G. Welton Lecture in Religious Studies, "Philosophers, Bishops and Monks: Power and Persuasion in the Later Roman Empire," on Oct. 2. Brown, a world authority on the late Roman and early medieval world, is author of several books, including *The Body and Society: Men, Women and Sexual Renunciation in Early Christianity*.

Ed Bradley, co-editor of CBS' "60 Minutes," will give a lecture on Oct. 9. Principal correspondent for "CBS Reports" and the winner of several Emmys, he previously served as a CBS News White House correspondent and was anchor of "The CBS Sunday Night News."

Novelist Jamaica Kincaid will give a reading and commentary Oct. 16 at the Mr. and Mrs. Spencer T. Olin Conference titled "Multicultural Perspectives." Kincaid, who came to the United States from Antigua, is the author of several books, including *Annie John*, one of three finalists for the 1985 international Ritz Paris Hemingway Award. Her latest novel *Lucy* was published in 1990.

John E. Pepper, president and member of the board of directors of Procter & Gamble Co., will deliver the Kellwood Lecture at 4 p.m. Oct. 16 in The May Auditorium, Simon Hall.

Pepper, who oversees the company's international business, will speak on "Operating Globally: The Significance to Procter & Gamble," and will receive the Fourth Excellence in Business Award given by the School of Business.

Nina Totenberg, award-winning legal affairs correspondent for NPR, will speak about the Supreme Court at the Woman's Club Lecture on Oct. 23. Among her many awards is the Alfred I. duPont-Columbia University Silver Baton won in 1988 for her coverage of Supreme Court nominations. A frequent contributor to major newspapers and periodicals, she served as Washington editor of New Times magazine before joining NPR.

John Singleton, 23, writer and director of "Boyz n the Hood," will deliver the Black Arts and Sciences lecture Oct. 30. Singleton won the Jack Nicholson Writing Award twice while attending the University of Southern California Film School. "Boyz," his first feature film, is a coming-of-age story set in the Los Angeles neighborhood where he grew up.

Jazz percussionist and composer Max Roach will speak on "American Music: Perspectives" at noon Nov. 1 in

Edison Theatre. Roach, noted as a drum soloist, conceived the idea of the Uptown String Quartet, famed for its ability to fuse classical with bebop—the most complex of jazz styles. The quartet will perform in Edison Theatre Nov. 1 and 2.

William Shawcross, author of *The Quality of Mercy: Cambodia, Holocaust, and Modern Conscience*, will deliver the Holocaust Memorial Lecture Nov. 6. During his years as a free-lance journalist and war correspondent, Shawcross wrote several books, including *The Shah's Last Ride*, published in 1989. The Holocaust Memorial Lecture, now in its third year, observes the Holocaust and similar human tragedies.

Imrat Khan, an instrumental performer of international renown, will give a lecture-performance of traditional Indian music Nov. 13. Khan, master of both the surbahar and sitar, performs worldwide. In addition to working with radio and television, he has composed and played for several films.

Nigerian writer Wole Soyinka, winner of the 1986 Nobel Prize in literature, will speak at 4 p.m. Nov. 21. His visit is in conjunction with the African Studies Association's annual meeting taking place Nov. 23-26 in St. Louis. Soyinka, chairman of the editorial board of Transition, a magazine dedicated to the free exchange of opinions and ideas in Africa, is a poet, playwright, dramatist and novelist. His autobiography, *Ake, The Years of Childhood*, recounts his early years in southwestern Nigeria.

As the final event in the fall semester, the series will present "Rim to River/The Bright Angel," a multimedia collaboration that includes art, dance, poetry and music at 11 a.m. Dec. 4, in Edison Theatre.

Paintings of the Grand Canyon by Bill Kohn, University fine arts professor, will provide a background for the work of poet Janet Eigner, a Washington University alumna; musician Rich O'Donnell of the Department of Music; Muriel Cohan and Patrick Suzeau, two former artists-in-residence at Washington University; and lighting designer Dale Dufer.

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Correction

In the Aug. 1 edition of the Record, Carl B. Safe was incorrectly identified as an assistant professor of architecture. Safe is an associate professor of architecture. The Record regrets the error.

Summer brings many changes to campus community

During summer break when most of the students are gone, the Washington University campus seems quiet. Only squirrels and a handful of people can be seen crossing Brookings Quadrangle at any given time. Despite the lack of traffic and the supposed solitude of the campus, major events happen. Research continues. New people come and others go. As the students return for the fall semester, they'll find that many things have changed.

• Poet Howard Nemerov, one of the most beloved members of the campus community, died July 5, after a long battle with cancer. His absence will be felt as students, fellow faculty members and staff look for and expect to see him walking along the path from his University City home to his office in Duncker Hall. During those walks, Nemerov wrote poetry in his mind that crowds later would gather to hear. The surrounding trees, the sky and the rhythm of his steps inspired him, he said.

Nemerov was considered one of the greatest literary figures in the country. He served as poet laureate of the United States for two terms, in 1988-89 and 1989-90. He won the National Book Award and the Pulitzer Prize in Poetry for his 1978 book *The Collected Poems of Howard Nemerov*.

Nemerov, the Edward Mallinckrodt Distinguished University Professor Emeritus of English and Distinguished Poet in Residence, taught at Washington University for 22 years.

• Washington University's 124-year-old School of Dental Medicine, the first of its kind west of the Mississippi River, closed May 31. On May 17, the school graduated its last class. Remaining students were all successfully transferred to other accredited dental schools.

More than one-quarter of the staff members accepted new positions within the University and others moved on to new challenges and opportunities.

The decision to close the dental school was made in June 1989, after a review showed a shrinking applicant pool, decline in research funds, and significantly increasing tuition.

Donations from dental school alumni will fund renovations to a second-floor room of the Whittemore House. The room will hold photographs of the dental school, plaques of former deans and other memorabilia. The dental school alumni association will remain active.

• Washington University made national news with the discovery of the so-called "missing link." A team of American and French anthropologists led by Washington's Glenn C. Conroy, Ph.D., professor of anatomy and neurobiology and anthropology,

discovered the jawbone of an unknown animal that may provide the best evidence yet that the evolutionary split between humans and apes may have occurred in southern Africa. Early evidence indicates that the bone is from an animal that lived 10-15 million years ago. The fully adult animal that the jaw belonged to was about two-thirds the size of a grown human, and possibly an ancestor of both apes and humans, Conroy says.

• Parking fees for the 1991-92 academic year were increased to help

meet the escalating costs of providing parking on the Hilltop Campus. New campus construction and the resulting need for additional parking spaces to meet parking code requirements, plus the increased number of people requesting permits have combined to create a "very difficult challenge," according to Thomas A. Harig, acting associate vice chancellor for business affairs. Planning for additional parking spaces is under way. The new prices range from \$75 for shuttle parking permits for the Famous-Barr parking lot in Clayton to \$350 for red permits. Also, a lottery was established to offer \$120 green permits in limited numbers.

• The University converted to a new telephone system that will meet its voice communications needs "for the remainder of this decade," said Bill Orrick, the University's director of telecommunications services. All exchanges that began with 889, 726 and 746 were changed to 935.

• The Kumon Institute of Education of Japan and the Osaka Gas Information System awarded Washington University a five-year \$1.3 million grant to computerize its highly successful mathematics education concept, the Kumon method. The method stresses repetition, speed, accuracy, individual pace and goal orientation in teaching mathematics. Unlike American mathematics education, Kumon mathematics disallows multiple choice answers and calculators. Enthusiasts claim students increase math skills, attention span and self-image using the Kumon method.

• Arlene R. Stiffman, Ph.D., assistant professor of social work, presented findings from a study of high-risk inner-city youth and AIDS before an audience of some 6,000 on June 19 during the VII International Conference on AIDS in Florence, Italy. The paper she presented was selected as the best in the social science category and will be published in the conference proceedings. Her study shows that attempts to stem the spread of AIDS in America by providing only education about the disease to these youths have backfired. Stiffman said that when these young people suffer the stress that characterizes inner-city life, along with alcohol and drug abuse, depression and hopelessness, then knowing that they are at risk for AIDS can actually make them more likely to indulge in behavior that is associated with transmission of the disease. Mental health screening and counseling for these youths are necessary, she says.

• Infant deaths attributed to Sudden Infant Death Syndrome (SIDS) may actually be caused by polystyrene-filled cushions, which limit infants' ability to move their heads, thus preventing them from obtaining fresh air, according to a report by James S. Kemp, M.D., and Bradley T. Thach, M.D., of Washington University. Their report was published in the June 27 issue of the *New England Journal of Medicine*.

• H. Mitchell Perry Jr., professor of medicine, was the principal investigator in a five-year study that showed that drug treatment can help prevent strokes in older persons with isolated systolic hypertension. The study was reported in the June issue of the *Journal of the American Medical Association*.

• Laparoscopy, the minimally invasive surgical technique that has become standard for gall bladder removal, has been used to remove solid organs such as kidneys, reported urologist Ralph V. Clayman, M.D.



Among the visitors to campus this summer were more than a 1,000 jugglers, vaudevillians, physical comedians and acrobats attending the 44th Annual Juggling Festival held July 16-21 in the Field House.

• James R. Schreiber, M.D., was named professor and head of the Department of Obstetrics and Gynecology at the School of Medicine. In addition to his School of Medicine post, Schreiber serves on the staffs of Barnes and Jewish hospitals.

• Stanley Elkin, Ph.D., the Merle Kling Professor of Modern Letters, joined other St. Louis luminaries honored with a brass star and bronze plaque embedded in University City's Delmar Loop sidewalks. Elkin was inducted into the Walk of Fame, along with

William H. Masters, M.D., professor emeritus in the Department of Obstetrics and Gynecology, and his wife, Virginia Johnson-Masters, a lecturer in the Department of Psychiatry.

• A five-year \$500,000 unrestricted grant from Bristol-Myers Squibb Co. was given to Roy Curtiss III, George William and Irene Koechig Freiberg Professor of biology and chair of the Department of Biology, in recognition of his pioneering work in infectious diseases research.

• Paul E. Lacy, M.D., Ph.D., Robert L. Kroc Professor of pathology at the School of Medicine, was elected a fellow of the American Academy of Arts and Sciences. The academy is one of the nation's oldest societies of leaders in science, scholarship, the arts and public affairs.

• Donald L. Snyder, Ph.D., professor of electrical engineering, was named the Samuel C. Sachs Chaired Professor of Electrical Engineering.

• Gary M. Hochberg, Ph.D., associate dean for the undergraduate program at the John M. Olin School of Business, was appointed interim dean of undergraduate admission. While continuing his responsibilities at the business school, Hochberg is responsible for undergraduate recruiting and admissions. He succeeds Charles S. Nolan, Ph.D., who resigned in May to return to Boston, his hometown. A search for a new dean of undergraduate admission is under way.

• William F. Buhro, Ph.D., assistant professor in the Department of Chemistry, was named a 1991 Presidential Young Investigator by the National Science Foundation. He will

receive \$25,000 in funding per year for five years.

• John G. Csernansky, M.D., Gregory B. Couch Associate Professor of Psychiatry at the School of Medicine, received the 1991 Judith Silver Memorial Young Scientist Award from the National Alliance for the Mentally Ill (NAMI). Csernansky is the eighth scientist to receive the award, which is presented annually by NAMI to recognize and encourage young researchers in the pursuit of understanding severe mental illnesses. The award includes a \$1,000 stipend.

• Michael A. Kass, M.D., professor of ophthalmology and visual sciences, was named editor-in-chief of the *American Journal of Ophthalmology*.

• Washington University's Board of Trustees elected six members. Three are first-time members: William A. Anders, chairman and chief executive officer, General Dynamics Corp., St. Louis; Stephen F. Brauer, president, Hunter Engineering Co., St. Louis; and Mary Ann Krey, owner and president, Krey Distributing Co., St. Charles, Mo. Three are former trustees: Charles Lipton, chairman of the board of Ruder-Finn, Inc., New York; William P. Stiritz, chairman and chief executive officer of Ralston Purina Co., St. Louis; and Raymond H. Wittcoff, president, Transurban Corp., St. Louis.

• Stanley L. Lopata, president of Lopata Research and Development Corp., received the University's prestigious William Greenleaf Eliot Society "Search" award during the annual dinner for members in May. The award honors an individual who has enriched the University by his or her interest and support.

• Leading economic theorist and University professor John Trout Rader III died at his home in St. Louis after a long battle with multiple sclerosis.

• Security Services at the School of Medicine changed its name, its services and its telephone number this summer. Its new name is Protective Services, and the new number is 362-HELP (4357). Pinkerton Security Services were hired to provide security coverage for the medical school, and 15 full-time security officers were hired to supervise Pinkerton's personnel and perform various law enforcement functions, such as investigations and emergency services.



Glenn C. Conroy

PERSONNEL NEWS

Investment returns help evaluate performance

The following information will help you evaluate the Vanguard Funds offered through Washington University's retirement plan. It describes our funds' objectives and strategies, and provides historical investment performance over one, five, and 10-year time spans. The fund categories are presented in order of approximate risk, from the most conservative to the most aggressive.

When evaluating fund performance, it is often helpful to consider a fund's return relative to that of an appropriate broad market index or "benchmark." For this purpose, a table of indexes representing benchmark returns for various categories is included on this page.

For more information and a prospectus for a particular fund, or to make an exchange, please call a Vanguard participant services representative toll-free at 1-800-523-1188.

Money market funds

Objective: Seeks maximum current income that is consistent with preservation of capital and liquidity. Please note that an investment in a money market fund is neither insured nor guaranteed by the U.S. government, and there is no assurance that the fund will be able to maintain a stable net value of \$1 per share.

Risk/Reward Potential: Very low.

Average Annual Total Return Performance* For Periods Ended June 30, 1991

Portfolio	One Year	Five Years	Ten Years
Vanguard Money Market Reserves-Prime Portfolio	7.45%	7.64%	9.04%
Vanguard Money Market Reserves-Federal Portfolio	7.20	7.41	8.61**
Vanguard Money Market Reserves-U.S. Treasury***	6.99	7.17	7.61**

*Returns include the reinvestment of all income dividends and any capital gains distributions in additional shares, and are net of expenses.

**Partial years Vanguard Money Market Reserves — Federal Portfolio began operations on July 13, 1981; U.S. Treasury Portfolio on March 9, 1983.

***Performance figures for the U.S. Treasury Portfolio of Vanguard Money Market Reserves for periods prior to March 13, 1989, reflect the performance of the Portfolio when it was managed as the Insured Portfolio.

Income funds

Objectives: To seek a high level of current income commensurate with each Portfolio's risk characteristics.

Risk/Reward Potential: Low to high, depending on the Portfolio. Portfolios with long average maturities generally will provide higher current yields and greater share price volatility than short-maturity portfolios.

AVERAGE ANNUAL TOTAL RETURN PERFORMANCE* For Periods Ended June 30, 1991

Portfolio	One Year	Five Years	Ten Years
Vanguard Bond Market Fund	10.57%	7.57%**	—%
Vanguard Fixed Income Securities Fund Short-Term Government	9.88	8.66**	—
Vanguard Fixed Income Securities Fund Short-Term Bond	10.42	8.33	10.19**
Vanguard Fixed Income Securities Fund GNMA	11.57	9.63	13.34
Vanguard Fixed Income Securities Fund U.S. Treasury Bond	8.72	7.05	7.52**
Vanguard Fixed Income Securities Fund Investment Grade Bond	9.96	8.74	12.72
Vanguard Fixed Income Securities Fund High Yield Bond	7.13	6.44	11.84
Wellesley Income Fund	9.68	9.43	14.69

*Returns include the reinvestment of all income dividends and any capital gains distributions in additional shares, and are net of expenses.

**Partial years — Vanguard Bond Market Fund began operations on Dec. 11, 1986; Vanguard Fixed Income Securities Fund-Short-Term Government Bond Portfolio on Dec. 31, 1987; Short Term Bond Portfolio on Oct. 29, 1982; U.S. Treasury Bond Portfolio on May 19, 1986.

Balanced funds

Objectives: To conserve principal, to pay current income and to achieve long-term growth of principal and income.

Risk/Reward Potential: Low to moderate.

AVERAGE ANNUAL TOTAL RETURN PERFORMANCE* For Periods Ended June 30, 1991

Portfolio	One Year	Five Years	Ten Years
Vanguard Asset Allocation Fund	9.06%	13.72%**	—%
Vanguard Convertible Securities	3.01	4.84	4.85**
Vanguard STAR Fund	7.79	9.51	12.06**
Wellington Fund	8.20	9.64	15.02

*Returns include the reinvestment of all income dividends and any capital gains distributions in additional shares, and are net of expenses.

**Partial years- Vanguard Asset Allocation Fund began operations on Nov. 3, 1988; Vanguard Convertible Securities Fund on June 17, 1986; Vanguard STAR Fund on March 29, 1985.

Growth and income funds

Objective: To achieve growth of principal and income and reasonable current income by investing in stocks believed to offer growth potential plus market or above-market dividend income.

Risk/Reward Potential: Moderate.

Trustees' Commingled Fund- U.S. Portfolio emphasizes income-producing equity securities considered by the investment adviser to be undervalued. International Portfolio utilizes computer analysis to determine country allocations and relative equity values.

Vanguard Equity Income Fund seeks a high level of current income by investing in common stocks with above-average dividend yields and, secondly, capital appreciation potential.

Vanguard Index Trust- 500 Portfolio seeks to match the performance of the Standard & Poor's 500 Composite Stock Price Index. Investors should be willing to accept some share-price volatility.

Vanguard International Equity Index Fund-

European Portfolio attempts to match the performance of the unmanaged Morgan Stanley Capital International Europe (FREE) Index, which consists of securities of companies located in 13 European countries. Purchases of this Portfolio are subject to a 1 percent transaction fee paid directly to the Portfolio to help defray transaction costs.

Vanguard Quantitative Portfolios uses computer analysis to seek a total return greater than the S&P 500 Index while maintaining fundamental investment characteristics similar to the S&P 500.

Windsor Fund seeks long-term growth of capital and income by investing primarily in common stocks. A secondary objective is to provide a reasonable level of current income.

Windsor II emphasizes stocks with price/earnings ratios lower than the market, dividend yields higher than the market, and price-to-book value ratios lower than the market.

AVERAGE ANNUAL TOTAL RETURN PERFORMANCE* For Periods Ended June 30, 1991

Portfolio	One Year	Five Years	Ten Years
Trustees' Commingled Fund- U.S. Portfolio	1.96%	8.98%	12.11%
Trustees' Commingled Fund- International Portfolio	-14.56	13.76	17.19**
Vanguard Equity Income Fund	1.38	10.70**	—
Vanguard Index Trust- 500 Portfolio	7.18	11.56	15.12
Vanguard International Equity Index Fund-European Portfolio	-12.61**	—	—
Vanguard Quantitative Portfolios	7.51	12.60**	—
Windsor Fund	2.28	8.94	15.81
Windsor II	7.58	10.20	13.96**

*Returns include the reinvestment of all income dividends and any capital gains distributions in additional shares, and are net of expenses. Performance data for Vanguard International Equity Index Fund-European Portfolio is adjusted for the 1 percent transaction fee on purchases.

**Partial years—Trustees' Commingled Fund-International Portfolio began operations on May 16, 1983; Vanguard Equity Income Fund on March 21, 1988; Vanguard International Equity Index Fund-European Portfolio on June 18, 1990; Vanguard Quantitative Portfolios on Dec. 10, 1986; Windsor II on June 24, 1985.

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Growth funds

Objective: To seek long-term growth of capital; dividend income is incidental.

Risk/Reward Potential: Moderate to high.

AVERAGE ANNUAL TOTAL RETURN PERFORMANCE* For Periods Ended June 30, 1991

Portfolio	One Year	Five Years	Ten Years
PRIMECAP Fund	6.96%	10.41%	16.61%**
Vanguard Index Trust-Extended Market Portfolio	4.66	12.82**	—
Vanguard Int'l Equity Index Fund- Pacific Portfolio	-10.05	—	—
Vanguard World Fund U.S. Growth Portfolio	9.46	10.02	14.10
Vanguard World Fund-International Growth Portfolio	-11.92	9.97	19.29**
Vanguard/Morgan Growth Fund	7.46	10.90	13.77

*Returns include the reinvestment of all income dividends and any capital gains distributions in additional shares, and are net of expenses. Performance data for Vanguard Index Trust-Extended Market Portfolio and Vanguard International Equity Index Fund-Pacific Portfolio are adjusted for the 1 percent transaction fee on purchases.

**Partial years — PRIMECAP Fund began operations on Nov. 1, 1984; Vanguard Index Trust-Extended Market Portfolio on Dec. 21, 1987; Vanguard International Equity Index Fund-Pacific Portfolio on June 18, 1990; Vanguard World Fund-International Growth Portfolio on Sept. 30, 1981.

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Aggressive growth funds

Objective: To seek long-term growth.

Risk/Reward Potential: Very high. Vanguard Explorer Fund seeks long-term growth of capital by investing in small emerging growth companies.

AVERAGE ANNUAL TOTAL RETURN PERFORMANCE* For Periods Ended June 30, 1991

Portfolio	One Year	Five Years	Ten Years
Vanguard Explorer Fund	6.73%	4.30%	6.90%
Vanguard SmallCap Stock Fund**	2.32	1.73	6.05

*Returns include the reinvestment of all income dividends and any capital gains distributions in additional shares, and are net of expenses. Performance data for Vanguard

SmallCap Stock Fund is adjusted for the 1 percent transaction fee on purchases.

**Performance figures for Vanguard SmallCap Stock Fund for periods prior to Sept. 11, 1989, reflect the performance of the Fund when it was managed as the Naess & Thomas Special Fund.

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Comparative indexes

The "benchmark" indexes used in the table below represent market returns in various asset categories. An index can be used as a standard for evaluating a Fund's relative performance. Please note, however, that the Vanguard Fund total return data are presented net of expenses, while the indexes do not reflect any of the "real world" costs of investing.

AVERAGE ANNUAL TOTAL RETURN PERFORMANCE For Periods Ended June 30, 1991

Type of Fund	Comparative Index	One Year	Five Years	Ten Years
Money Market	Salomon 90-day U.S. Treasury Bills	6.93%	7.01%	8.37%
Bond	Salomon Brothers Broad Investment Grade Bond Index	10.84	8.88	13.51
Diversified Stock	Standard & Poor's 500 Composite Stock Price Index	7.39	11.88	15.51
International Stock	Morgan Stanley Capital International Europe, Australia and Far East ("EAFE") Index*	-10.92	11.10	17.42
Small Stock	Russell 2000 Small	1.23	3.75	9.86

The "benchmark" comparative indexes represent unmanaged or average returns on various financial assets that can be compared to the Funds' total returns to measure relative performance. Please note, however, that Vanguard Fund total return data represent past performance. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. For more complete information on advisory fees, distribution charges and other expenses, and a breakdown of income and capital gains paid by the Fund, please read the prospectus before investing. A prospectus may be obtained by writing The Vanguard Group, P.O. Box 2600, Valley Forge, Pa., 19482, or by calling 1-800-523-1188.

CREF Investment Performance Summary for Period Ended 6/30/91

AVERAGE ANNUAL COMPOUND RATES OF TOTAL RETURN

Period	Stock Account	Money Market Account	Bond Market Account	Social Choice Account
Year to Date	13.86%	3.26%	3.57%	9.97%
1 Year	4.98%	7.40%	9.10%	8.45%
5 Years	11.14	N/A	N/A	N/A
10 Years	15.42%	N/A	N/A	N/A

Personnel News

Personnel News appears monthly in the Record and is prepared by Gloria W. White, vice chancellor for personnel and affirmative action officer, 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.

MEDICAL RECORD

Strauss awarded MERIT status for SIDS research

Arnold W. Strauss, M.D., professor of pediatrics and of biochemistry and molecular biophysics at the School of Medicine, has received MERIT status from the National Institutes of Health (NIH) for his latest grant.

The five-year grant from the National Institute of Diabetes and Digestive and Kidney Diseases, part of the NIH, totals \$1.6 million. The funding enables Strauss, whose studies focus on such serious illnesses as sudden infant death syndrome and Reye's Syndrome, to continue research on the metabolism of fats. MERIT (Method to Extend Research in Time) status guarantees Strauss uninterrupted financial support without the time-consuming paper work and other delays traditionally associated with grant renewal applications.

Researchers cannot apply for MERIT status, but are chosen in recognition of their consistent commitment to excellence based on previous research. Once received, a five-year grant with MERIT status may be extended an additional three to five years, based on an expedited review of work accomplished during the initial period.

"MERIT status is only given to investigators for consistently outstanding work; a small, select group," says William A. Peck, M.D., vice chancellor for medical affairs and dean of the School of Medicine. "Dr. Strauss richly deserves this award. He has applied the most sophisticated molecular techniques in clarifying the mechanism and significance of a serious childhood illness."

Strauss is investigating how defects in particular proteins or



Arnold W. Strauss

enzymes involved in the breakdown of fatty acids cause disease. He has defined the genetic and molecular basis of one enzyme deficiency which inactivates the protein. The genetic abnormal-

ity changes only one of the more than 400 amino acid building blocks of the protein. This single mutation is, so far, universally present in patients with the enzyme deficiency.

Strauss has determined the genetic basis of this disease in numerous families, demonstrated how it is inherited and developed a screening test for the genetic abnormality. In characterizing the gene's mutation, he has also identified abnormalities in the processing of the messenger RNA derived from the gene. Together, these abnormalities alter the ability of the heart and liver to use fat as fuel for energy, leading to accumulation of toxic substances and severe dysfunction.

This defect is one of the few known causes of sudden infant death syndrome (SIDS), a mysterious disease of infants, and Reye's Syndrome, a rare and sometimes fatal disease in older children. Together with other enzymatic defects in fat metabolism, this genetic abnormality may account for 10 percent of SIDS cases.

A 1970 graduate of the School of Medicine, Strauss served his internship and residency at St. Louis Children's Hospital. He has been on the School of Medicine faculty since 1977 and currently is director of the division of cardiology for the Department of Pediatrics.

An eye on AIDS

Vision tests help monitor disease progression

The eyes have been called the window to the soul, but researchers at the School of Medicine are turning to these telling organs to learn more about the progression of the AIDS virus in the brain. By better understanding the neurological effects of AIDS, scientists hope they can postpone some of the more devastating symptoms of the disease.

Researchers have learned that subtle changes in eye movements of people with various stages of AIDS may provide early evidence of the course the disease takes in the brain. While investigators have known for several years that the brain is a primary target of the HIV-infection that causes AIDS, quantitative methods for monitoring insidious changes have not been applied.

At the School of Medicine, researchers are involved in a unique study of oculomotor function in HIV-infected people that has yielded clues on early neurologic manifestations of HIV infection. The largest and most comprehensive work of its kind to date, the study focuses on three components of eye movement and looks at a cross-section of individuals at various stages of disease. The study, one of several taking place as part of the School of Medicine's AIDS Clinical Trials Unit, has shown that eye movement abnormalities exist at all stages of AIDS disease — from the asymptomatic phase when no signs of illness are apparent to the stage when symptoms are most severe.

"We're looking for tests that will be sensitive to signs of change in brain function that seem to coincide with the course of disease," says David Clifford, M.D., associate professor of neurology and director of the study. "With such information, we can begin treatment earlier and measure its effectiveness before people begin having serious problems."

Eye movement tests can detect even mild neurological dysfunction because numerous well-defined areas of brain function are involved in moving the eyes. Clifford and his colleagues studied fixation, the ability to fix a gaze; smooth pursuit, the ability to track a target in space; and saccadic performance, the ability to rapidly shift gaze. Results of Clifford's study appear in the August issue of the journal *Annals of Neurology*.

"Neuropsychometric tests, such as follow-the-number puzzles and peg board exercises, are tools used to detect brain damage caused by HIV before other disease symptoms appear, but they are not good indicators for early progression of the disease in the brain," Clifford notes. "Numerous areas of brain function are involved in eye movement so the tests are better suited to assessing extent of disease."

Eye function declines

Clifford and colleague Gary Paige, M.D., Ph.D., now at the University of Rochester, examined a cross-section of 72 subjects, 47 of whom tested positive for HIV infection. They included 17 with asymptomatic HIV infection; 16 with AIDS Related Complex (ARC), including weight loss, fever and diarrhea; eight with advanced AIDS; and six with AIDS dementia and severe neurologic problems. Twenty-five controls were not infected.

During the 20-minute test, subjects completed four different tasks by watching a target displayed on a computer monitor. Using an Eye Trac infrared monitor system, the horizon-



A study directed by David Clifford, M.D., has shown that there are eye movement abnormalities in all stages of AIDS.

tal eye position was recorded. In the fixation trial, subjects were asked to focus on a target for 20 seconds. While the control group maintained a near-perfect steady gaze, fixation stability significantly decreased in HIV-infected subjects with advanced disease. Eye movement in the control and asymptomatic groups shifted less than one degree on either side of the target, while those with AIDS and AIDS dementia shifted from one-to-two times further from the target. Those with AIDS dementia made nearly six times the number of rapid shifts in eye movements (saccades) interrupting fixation as those in the control group.

For the tracking task subjects watched a target move back and forth across the monitor at different speeds, while investigators measured the eye's range of motion against the target's range of motion, and the position of the eye in relation to the target. They found that as the target's speed increased, the AIDS and AIDS dementia subjects fell behind, then jumped ahead of the target, whereas controls followed the target very accurately.

Control rapidly diminishes

To measure saccadic eye movements, subjects watched a dot jump across the monitor. In this task, Clifford measured latency — the time difference between when the dot moved and when the eyes moved — and the number of movements it took to get the eye from one point to the next.

"We wanted to know how soon they would turn their eyes after the position of the dot changed," Clifford says. "We found that a predictable targeting of these eyes wasn't possible even in asymptomatic persons. The unpredictability of the control of movement started early, in the asymptomatic stages of disease."

In this test, the controls moved to within four degrees of the target on their initial saccade while HIV-infected subjects averaged 10 percent off target. The number of eye movements required to reach the target varied from 1.7 in the control group to 2.9 in the AIDS dementia group.

A more difficult anti-saccade trial required subjects to look at a target for one second, then turn the eyes to the opposite side and look at an asterisk briefly presented. Among the controls, 91 percent correctly shifted their gaze compared to 37 percent of AIDS dementia subjects. The time subjects needed to make the shifts

also significantly varied. Controls required 330 milliseconds while the AIDS dementia patients required 410 milliseconds.

To further complicate the task, instead of an asterisk, the letter L or R was designated as the target, and subjects had to press a key under the left or right index finger corresponding to the letter presented. In the control group, 96 percent had correct finger responses compared to 78 percent of AIDS dementia subjects. Accuracy of gaze shift also declined in both groups to 80 percent in the control group and 21 percent in the AIDS dementia group.

"When you have a task where you have to think about the job, it makes the task even more difficult," Clifford explains. "When we asked them to look away from the target on the left, their eyes should have looked to the right, not at the target. Those with AIDS glanced at the target then moved their eyes the other way. Even the asymptomatic subjects had trouble and it got worse with the severity of HIV infection."

Although decline in oculomotor function was not directly correlated with clinical staging of disease, Clifford says it's clear that people who develop AIDS dementia have eye movement problems. He plans further testing to learn whether this early decline in oculomotor function predicts development of AIDS dementia.

Clifford believes it will be several years before researchers are able to pinpoint specific changes that occur during the asymptomatic period of disease. To do that, oculomotor function tests need to be employed in new drug therapies and monitored.

"Not long ago, people died within months of developing an AIDS-defining problem, but now people typically live several years," Clifford says. "We've at least quadrupled the lifespan with therapies found in the first decade of this disease."

"Treatment can delay the complications of AIDS," he continues. "We can modify lifestyles to prevent infection and, with medications, protect those already infected. Prophylactic treatments for common complications such as pneumocystic pneumonia, and use of anti-virals like AZT (zidovudine) delay the complications of HIV and prolong life."

Kleila Carlson

Smith appointed associate dean

Morton E. Smith, M.D., has been named associate dean for postgraduate education at the School of Medicine.

The appointment, effective Sept. 1, was announced by William A. Peck, M.D., vice chancellor for medical affairs and dean of the School of Medicine.

"Dr. Smith, an internationally recognized clinician and teacher, is just the right person to lead this vital program," says Peck. "He is talented, experienced and has the requisite organizational ability."

Smith replaces Elmer B. Brown, M.D., who is retiring after 37 years of



Morton E. Smith

service to the university. In his new role, Smith will oversee all continuing medical education courses offered at the School of Medicine. A professor of pathology and of ophthalmology and visual sciences, he will continue to serve as director of ophthalmic pathology and as director of ophthalmology courses for medical students.

Smith joined the School of Medicine faculty in 1965 as an instructor in ophthalmology. He became a full professor in 1975 and in 1978 was promoted to assistant dean. His research interests involve studying how cancer and other diseases affect the function and structure of the eye.

As a faculty member, he has been named teacher of the year twice by the senior class, and lecturer of the year by the sophomore class in 1989. In 1976, he was awarded the Washington University Founder's Day Faculty Award for excellence in teaching.

Smith is a diplomate of the American Board of Ophthalmology and recently was elected to its board of directors. He also is a fellow of the American Academy of Ophthalmology and a member of numerous other professional societies.

He received both his bachelor's and medical degrees from the University of Maryland and served his residency in ophthalmology at Washington University School of Medicine.

Wax and Kaplan receive grants

The Department of Ophthalmology at the School of Medicine has received two grants totaling \$90,000 from Research to Prevent Blindness (RPB), a voluntary organization committed to the financial support of eye research.

One of the grants was presented to Martin B. Wax, M.D., assistant professor of ophthalmology and visual sciences. He was selected as the RPB Robert E. McCormick Scholar and has received \$30,000 to further his research on the role of polyamines in human non-pigmented ciliary epithelial cells. These studies will attempt to further define the molecular mechanisms responsible for aqueous humor transport.

The second award for \$60,000 is an unrestricted grant presented to Henry J. Kaplan, M.D., professor and head of the Department of Ophthalmology and Visual Sciences. Unrestricted grants, which are given by only a few organizations, are valuable because they allow the department flexibility to provide support where it is most needed.

Malaria bug may meet its match

A new class of medications designed to starve an army of hemoglobin-chewing parasites could provide a much-needed alternative drug therapy to combat malaria, a feverish illness that kills two million people annually.

The anti-malarial drugs, if successful, would block the feeding of the parasites that cause the disease, says Daniel E. Goldberg, M.D., Ph.D., of the School of Medicine. Goldberg devised the new approach and is designing compounds that essentially deceive the parasites into "believing" they are destroying hemoglobin, the oxygen-carrying component of red blood cells. He is also developing several promising drugs with the pharmaceutical industry.

Once they enter the bloodstream, malaria-spreading organisms burrow into red blood cells, incorporating themselves in the cells' hemoglobin-rich cytoplasm. There, the parasites devour hemoglobin, turning the molecule's building blocks into fuel for further forays.

The parasites that cause malaria are notorious for their voracious appetite. "In just a few hours they will chew up a quarter pound of hemoglobin in a heavily infected patient," says Goldberg, an assistant professor of medicine. "Fortunately for them, they are in a rich environment: it's a little bit like a child locked in a candy store."

For the most part, Americans are sheltered from the human cost of malaria. This virulent disease thrives in some of the poorest regions of the world, countries where starvation and lack of food are the norm. In these countries, nearly 500 million people may already be infected, and this year two million people will die, most of them children.

In marked contrast to the severity of the disease, the amount of money spent on basic malaria research is surprisingly small, Goldberg says. This, he contends, is one of the reasons so little is known about fundamental details of the disease.

"There's a lot left to learn. Large amounts are already known about some microorganisms that cause disease, whereas very basic details about malaria remain unknown."

Studies in Goldberg's lab focus on *Plasmodium falciparum*, the species responsible for the majority of malaria deaths. The task at hand is to understand the molecular assault of malaria infection in order to design better drug therapy. While a research associate in medical biochemistry at Rockefeller University, Goldberg found that *P. falciparum* uses a digestive protein, called an aspartic protease, to destroy the hemoglobin molecule by cleaving it in a crucial structural location, making it easier to unravel.

When hemoglobin latches onto oxygen in the bloodstream, many of the normal chemical bonds that hold the molecule together are broken, Goldberg explains. But a region that operates like a hinge stabilizes the molecule, keeping it intact while laden with its cargo of oxygen. When attacked by the parasite, this hinge region becomes the hemoglobin molecule's Achilles heel.

"This clever creature goes straight for the hinge region, making a clip there and filleting it open for further digestion by other enzymes," Goldberg says. The hemoglobin is degraded by the parasite and used to fuel further attacks against the host's defenses.

Flu-like symptoms and high fever are usually the initial signs of malaria.



A new strategy for battling the malaria parasite has been devised by Daniel E. Goldberg, M.D.

Complications of the lungs and kidneys, severe anemia and shock can also occur in the infected patient. If the malaria organisms clog the vessels leading to the brain, cerebral malaria occurs, causing confusion, coma and often death.

A puzzling feature of this disease is that people who carry sickle cell anemia or thalassemia genes — those whose hemoglobin is misshapen — are protected from malaria. Other people aren't protected, however, and so must rely on the drugs chloroquine or mefloquine. In the last few years, though, protection has become much more difficult.

"It used to be a straightforward affair," Goldberg says. "You would take your chloroquine pill once a week starting just before going out of the country, weekly once you were there, finishing up once you got back. Now, though, the parasites have developed resistance to the drug. Chloroquine resistance is rampant in most endemic areas and becoming worse." With chloroquine obsolete in most of the world, the search is on for better medications. In the meantime, Goldberg notes, most people are relying on mefloquine.

But mefloquine isn't meeting with much success either. "Mefloquine resistance has already cropped up and

can be expected to spread in short order," he says. "There's a desperate need for new chemotherapeutic agents."

Goldberg's work on aspartic proteases may relieve dependence on mefloquine-type medications by making it possible to fashion drugs that could starve malaria-causing parasites. In theory, any drug that blocks *P. falciparum*'s ability to cleave hemoglobin should shut off its energy pipeline.

"If the organism can't chew up hemoglobin and can't grow, it will die rapidly," Goldberg says.

His lab is designing specific peptides that mimic the hemoglobin cleavage site, thus tricking the organism into "thinking" it is cleaving hemoglobin. "These peptides are altered to bind tightly to the malaria parasite and block cleavage," he explains.

The high death rate and the inability of modern medicine to develop a safe and effective vaccine are spurring this search for new drug treatments, Goldberg says. "Ultimately, we would like to stop the organism before it gets into red blood cells, but I'm not optimistic. There's still some promise for certain vaccines, but the need for new drugs is pressing."

Jim Keeley

Hand surgeon Sidney Blair will speak at cumulative trauma disorder seminar

Cumulative trauma disorder, a leading cause of workers' compensation claims in the United States, will be the subject of a two-day seminar in October, sponsored by the School of Medicine.

The seminar will be held Oct. 18-19 at the Ritz-Carlton Hotel. Keynote speaker will be Sidney J. Blair, M.D., chief of hand surgery at Loyola University Medical Center in Chicago.

Cumulative trauma disorder is a problem that can result from the repetitive motion of hand, wrist and upper-body movements while using equipment such as computer keyboards, factory tools and electronic checkout scanners. Between 1985 and 1989, the number of cumulative trauma cases reported by workers increased nearly fourfold, causing it to become one of the chief medical complaints among workmen's compensation claims.

In his presentation, Blair will discuss the medical aspects of the ailment, which is significantly impacting U.S. industry in productivity,

profit, health costs and competitiveness. Other topics to be addressed include prevalence, screening, prevention, treatment, legislation and litigation.

In addition to medical and legal experts, speakers include representatives from the Occupational Safety and Health Administration (OSHA), National Institute for Occupational Safety and Health (NIOSH) and AFL-CIO.

V. Leroy Young, M.D., professor of surgery at the School of Medicine, will chair the event, with Jane A. Riolo, M.D., instructor in surgery, as co-chair. Other Washington University faculty taking part are Philip E. Higgs, M.D., instructor in surgery, and Neil N. Bernstein, J.D., LL.B., professor of law.

Cost of the program is \$325 if registration is received by Sept. 17. For further information about the seminar, contact the Office of Continuing Medical Education at the School of Medicine by calling 362-6893.

MEDICAL RECORD

Interferon halts liver damage in patients with hepatitis B

Liver disease does not progress in patients with hepatitis B who have been treated successfully with interferon and other forms of antiviral therapy, according to a recent report in the *Annals of Internal Medicine* by researchers at the School of Medicine.

This is the first long-term study monitoring the liver biopsies of hepatitis B patients who have responded to treatment. Researchers checked viral markers and biochemical evidence of the disease in blood over a two-to-seven-year period. Liver biopsies were then done and compared to pre-treatment biopsies. While some inflammatory changes are still present, the disease itself had not progressed, says principal investigator Robert P. Perrillo, M.D., professor of medicine and director of gastroenterology at the Veterans Administration Medical Center in St. Louis.

"This is the first liver tissue demonstration that patients who receive interferon for chronic hepatitis B achieve lasting benefit from therapy, with only scant viral particles evident in the liver years later," says Perrillo. "We are optimistic that liver disease does not progress. Rather, we believe that these remaining virally infected liver cells may grow old, die and be replaced."

Perrillo last year reported the first cure for hepatitis B in 11 patients

receiving interferon therapy. Chronic hepatitis B is a serious, debilitating, infectious liver disorder that predisposes to cirrhosis and can be fatal. An estimated 1 million Americans are chronically infected with the hepatitis B virus.

For this latest study, the researchers examined seven patients who had participated in one of three antiviral research studies between 1981 and 1989. All of the patients had tested positive for the hepatitis B virus at least six months prior to enrolling in the initial study and suffered chronic liver disease. Viral replication was halted spontaneously in two patients, and as a result of antiviral therapy in five patients, four of whom had received some type of interferon therapy. Liver function tests also showed the disappearance of hepatitis B e antigen, another indication that the disease is no longer active.

Overall, there was a 50 percent improvement in total liver activity when the follow-up biopsy was done up to two years after the hepatitis B virus disappeared from blood; the improvement jumped to 83 percent when the second biopsy was performed after four years or more. Liver biopsies of seven additional patients who had participated in the same clinical trials, but not responded to treatment, were used for comparison.

Schreiber named first Flance scholar

Matthew Schreiber, a second year medical student at the School of Medicine, has been named the first Flance Medical Scientist Trainee in the school's Medical Scientist Training Program (MSTP).

The newly established scholarship was made possible through a \$150,000 gift from the Harry Edison Foundation, an independent organization incorporated in 1949 that supports higher education, social services and medical research.

The scholarship will support Schreiber throughout his MSTP training, where after six years of study he will graduate with a combined M.D., Ph.D., degree. A Phi Beta Kappa graduate of Oberlin College, Schreiber received a bachelor's degree in psychology and has had extensive undergraduate research experience.

The award is named in honor of I. Jerome Flance, M.D., clinical professor of internal medicine at the School of Medicine. Flance's association with the School of Medicine spans more than 50 years. He received his undergradu-

ate degree from Washington University in 1931, his medical degree from the School of Medicine in 1935, and he has been a member of the School of Medicine faculty since 1942.

Washington University's MSTP, which began in 1968, is the largest MSTP in the United States. The National Institutes of Health has funded 29 programs nationwide. Directed by Carl Frieden, Ph.D., professor of biochemistry and molecular biophysics, the Washington University program offers outstanding medical students an opportunity to train as academic physicians with a background in basic research.

Since 1974, 159 students have graduated from the program and almost all have gone on to careers in academic research institutions. Of the 75 students who have completed their residencies, 65 are full-time faculty members. Twenty-six of those individuals are professors or associate professors, 32 are assistant professors and seven are instructors.

\$752,264 to benefit doctoral students

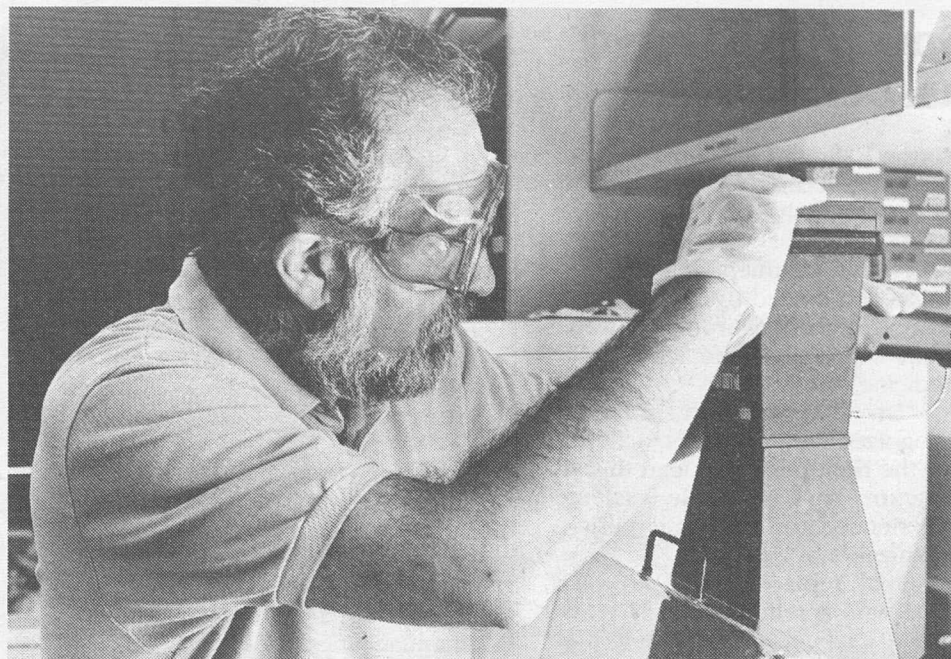
The National Institutes of Health has awarded training grants totaling \$752,264 to the Division of Biology and Biological Sciences at the School of Medicine.

The grants will provide tuition and stipends to 32 doctoral students studying in the areas of cell and molecular biology and systems neurobiology.

The money will provide financial support during the students' first few years, a period during which they are encouraged to explore as they decide on specific research projects. Each student is required to complete rotations in at least three different laboratories before choosing a specialized area of study.

Principal investigators of the grants are Philip Stahl, Ph.D., director of the division and head of the Department of Cell Biology and Physiology, and Jonathan B. Cohen, Ph.D., coordinator of the division's graduate program in neurosciences and professor of anatomy and neurobiology and of biochemistry and molecular biophysics. Stahl received \$564,192 to fund 24 students and Cohen received \$188,072 to fund eight students. Both will choose the recipients with input from administrators in their programs.

The grant amounts cited are for one year of a five-year project period and are awarded by NIH's National Institute of General Medical Sciences.



Kirkwood High School biology teacher Don Cohn plans to go back to the classroom this fall and teach his students what he learned while working this summer in a medical school lab.

Teachers trade textbooks for test tubes

Six years ago, Don Cohn exchanged his researcher's lab coat and test tubes for a high school classroom and textbook because he wanted to experience a broader scope of science and be in touch with people.

This summer Cohn, a biology teacher at Kirkwood High School, was out of the classroom and back in a laboratory at the School of Medicine, where he refreshed his relationship with research so that he can enhance the science education of his students. A former bioenergetics researcher, Cohn was one of three high school biology teachers working in Washington University immunology labs; another three were in laboratories at St. Louis University School of Medicine, which took part in the High School Teacher Internships in Immunology program for the first time. The three-year-old program is coordinated by Carl Pierce, M.D., Ph.D., and Judith Kapp, Ph.D., both Washington University faculty members.

The program was developed by the committees on minority affairs and education of the American Association of Immunologists (AAI), which is its sponsor; the Biological Sciences Curriculum Study (BSCS), a national organization that researches and develops innovative instructional materials for science education; and the Mathematics and Science Education Center, an organization which coordinates educational activities in the St. Louis area.

The program is important because it allows teachers to become actively involved in what is going on in science, according to Pierce, a professor of pathology and molecular microbiology. At the end of the program the teachers together develop a curriculum exercise for their classroom which is evaluated and reviewed before being used.

"The curriculum exercise is important because high school texts are out of date, some as much as 15 years behind the present state of

immunology," Pierce says. "This exercise allows teachers access to current research and allows them and their students to reach beyond normal classroom study."

Working in the laboratory of David D. Chaplin, M.D., Ph.D., assistant professor of molecular microbiology, medicine and genetics, Cohn helped researchers mapping the genetic area responsible for the major histocompatibility complex (MHC). MHC is a combination of genes that labels cells in the immune system and prevents the immune system from attacking itself as it attacks foreign tissues. Mapping the genes will ultimately help researchers pinpoint the cause of certain diseases.

"My formal education was over before most of these advancements were dreamed of," says Cohn of the research. "This was a way to catch up and refresh my acquaintance with research and hopefully bring back something to my high school classes. Few people see science as it's really done, but here I have had a wonderful opportunity to do just that."

Cohn says it was a course on gene evolution he took last summer at Washington University that stirred his interest in the laboratory course at the School of Medicine. "I learned so much in such a short time, and everyone in the lab was so helpful," he says. "There was a very relaxed and friendly atmosphere and I enjoyed that."

Other Washington University School of Medicine faculty who served as mentors for teachers were John H. Russell, Ph.D., associate professor of pharmacology; and Moon H. Nahm, M.D., associate professor of medicine and pathology.

So far, 16 teachers from 10 area schools have participated in the program. The teachers have represented public, private, inner city and suburban schools. The program exists in Palo Alto, Ca., Gainesville, Fla., Louisville, Ky., and New Orleans, La.

Deadline nears for cancer research grants

Application deadline is Sept. 13 for research awards from the American Cancer Society's institutional research grant at the University.

The awards provide initial research support for projects that have no other available funding and that are relevant, directly or indirectly, to clinical or laboratory aspects of cancer. Only instructors and assistant professors are eligible to apply.

Applications are scheduled to be reviewed by Oct. 15 and funds will be

awarded by Nov. 1. Awards are limited to \$15,000 for one year; renewals of funding are not permitted.

For application forms and guidelines, contact Susan Starbuck or Lois Miller in the Department of Pediatrics at the School of Medicine, 454-6128. For information or clarification of guidelines, contact Garrett M. Brodeur, M.D., chairman of the Washington University American Cancer Society Institutional Research Grant Committee, at the same number.

SPORTS

Young, but talented men's soccer team shows promise

With eight NCAA tournament trips and three national runner-up finishes in the last 13 years, the Washington University men's soccer team has proven to be a legitimate postseason contender on an annual basis.

This year's edition, a relatively young squad with just two seniors, might be a year away from earning consideration as a valid national title contender, but the talent appears to be on hand to claim yet another NCAA berth and make a run at the UAA crown.

Head coach Ty Keough is building this year's offense around sophomores Ron Sorensen (Tigard, Ore.) and Jason Felsman (Quincy, Ill.), two speedy scorers, who saw considerable playing time as freshmen. Sorensen scored seven goals and three assists while earning second-team all-conference honors. Felsman, playing in all 18 games but starting just two, scored two goals and six assists.

Also expected to make significant contributions up front: seniors Jerry Blocher (St. Louis, Mo.) (3 g, 2 a), Jim Hawkins (Granite City, Ill.) (2 g, 5 a), and Matt Davis (Tucson, Ariz.) (2 g, 2 a).

At midfield, 6-foot, 180-pound Kyle Draeger (Columbus, Ind.) returns after enjoying a solid rookie season. A second-team all-conference pick, Draeger scored five goals and five assists. Junior midfielder and two-year starter Chris Wollmuth (Portland, Ore.) is back, after having scored three goals and six assists in 1990.

In the backfield, senior Steve Pasko (Rumson, N.J.) will anchor the defense, more than likely at sweeper back. He has started 34 of the Bears' last 35 games, missing the one game with an injury. Also returning as a



With the graduation of Rob Winkelmann and Paul Wright, the Bears are hopeful that Jerry Blocher (pictured above) will lend a heavy scoring punch.

defender is senior Erik Trusler (Helena, Mont.) (4 g), who has played most of his career on the forward line.

Juniors Karl Adalbert (Minneapolis, Minn.) (1 g, 1 a), Matt Hillman (Mercer Island, Wash.) and sophomore Scott Jones (Cincinnati, Ohio) (1 g) are other key players in the Bear backfield.

A new era of goalkeeping begins this season at Washington University. With the position wide open because of graduation, a trio of freshmen are

battling for the vacant position along with sophomore goalie Patric Santo Pietro, who started for the Bears' JV squad last season.

Also coming to preseason camp for the first time with impressive credentials are striker/stopper Kevin Neebes (Cleveland, Ohio), who was named a high school All-American; defender Darreau Manning (Brooklyn, N.Y.); and defender Josh Dorfman (Philadelphia, Pa.), who played with the Danubia Soccer Club.

Football Bears will build on last year's success

For the first time since 1979, Washington University's football program begins a season with a winning label. After toiling through 11 consecutive losing campaigns, Washington University reversed its fortunes in 1990, posting a solid 7-3 record. The Bears snapped their longest skid of sub-five-hundred seasons and became one of only seven teams in school history to win seven or more games in a year.

"We had to work so hard on bringing our goals and dreams to a higher level, we can't let our players forget the kind of effort it required," says Larry Kindbom, head football coach. "The winning attitude and confidence which has developed over the years has created a very positive environment for our program. But every year you must start over, and this season is no different."

It is no secret that the Bear defense, led by its experienced secondary, is the heart and soul of the squad. With all four starters returning and another two-year starter back — senior strong safety John Stefanos (Oak Lawn, Ill.) — the Bears are loaded in the defensive backfield.

The quintet's honors and accomplishments are certainly exemplary. Two are preseason All-Americans, three earned all-conference recognition last year, and four were elected by their teammates this past winter as team captains.

Senior cornerback Stacey Hightower (Carnegie, N.J.), a preseason All-American, first-team all-conference pick and team captain, heads the list of secondary returnees. He notched five interceptions and 41 solo tackles last year, and also fin-

ished 13th among Division III's punt returners last season with a 14.4 yards per return average.

Another preseason All-American pick and a second-team all-UAA choice, junior free safety Michael Lauber (Vandalia, Ohio), returns. Lauber led the squad with six interceptions and recorded 93 tackles — third highest on the team.

Although Hightower and Lauber earned much of the praise in the secondary, senior captains Rod Shelton (Peekskill, N.Y.), and David Snyderman (Freehold, N.J.), played a key role in the defensive success. Shelton, earning first-team all-league honors, had three interceptions and 55 tackles. Snyderman rounded out the starting unit with two interceptions and 79 tackles. The Bears' four starting secondary players combined for 16 of the team's school-record 23 interceptions in 1990.

"What has happened to our secondary over the last few years is pretty indicative of our team growth," Kindbom says. "They have really matured and become a close-knit family. Having four of our five captains come from this group says a lot about what they mean to our team."

At the three linebacker spots — the one area where the Bears are loaded with depth — two of three starters return, led by junior Jeff Cooper (Edmond, Okla.), a 1991 preseason All-American. Cooper led the Bears in defensive statistics, racking up 94 total tackles and five sacks.

The special teams, which Kindbom links to his defense, are surrounded with plenty of question marks. The primary area of concern

lies in replacing All-American punter Eric Nyhus and all-conference place-kicker Jeff Chrusciel. However, the Bears' top two kick returners are back.

One of the returnees, punt return specialist Stacey Hightower, was mentioned previously. The other speedster, senior D.L. Warfield (Florissant, Mo.), returns kickoffs for the Bears. Last year he averaged 22.3 yards per return, including a season-long 72-yarder.

Warfield is also one of the key returnees in the Bear offense. Besides the five returning starters on the offensive line, he and senior fullback Pad Boyle (Clarksburg, W.Va.), are the Bears' lone returning regulars at the skill positions. Both saw extensive action and shared starting assignments with other players.

Although several questions remain unanswered about who is going to throw, carry and catch the ball, the Bears do have a solid, experienced offensive line to build around. All five starters return, led by 270-pound offensive tackle Jeff Doyle (Arnold, Mo.) He was the only freshman named to last year's all-UAA first team.

Not yet factored into this year's outlook is a freshman class of approximately 30 players. A few of these newcomers could move into key reserve roles or even a starting position. Overall, Kindbom said he was pleased with his 1991 recruiting group, which should put this year's roster size at roughly 90.

"You win with good athletes, and I think that best describes this year's recruiting class — a good group of athletes," Kindbom says.

Volleyball Bears aim for third-straight NCAA final showing

Two years ago, the Washington University women's volleyball team reached the peak — winning the NCAA Division III title with a convincing three-games-to-none sweep over Ohio Northern University. Last year's team had the same dream, but lost a heartbreaking 3-2 decision to UC-San Diego.

Having seen both sides of the mountain, head coach Teri Clemens and her Bear squad are eager to return to the summit in 1991.

Despite the graduation of consensus national player of the year Kathy Bersett, first-team All-America honoree Dianne Stites, and all-UAA selection Dawn Chamberlin, the Red and Green appear to have the talent to make the climb.

Key on the list of returnees is first-team All-America setter Kelley Meier (St. Louis, Mo.). After serving a two-year apprenticeship behind two-time national player of the year Lori Nishikawa, Meier stepped in last season and added new dimensions to the Bears' game. Standing 5-feet-10-inches tall, Meier is a force offensively (1,100 assists, .305 hitting percentage in 1990), defensively (234 digs, 31 stuff blocks), and while serving (a team-high 74 aces).

Another player who blossomed in 1990 was middle blocker Lisa Becker (Dallas, Texas). Stepping into a starting role after seeing limited playing time as a freshman, the six-foot Becker earned All-Central Region honors after ranking among the nation's leaders with a .375 hitting percentage, 67 service aces, and 114 stuff blocks.

Outside hitter Joanie Subar (Joliet, Ill.) also enjoyed a breakthrough season in 1990. The possessor of one of the nation's most wicked jump serves, Subar overcame an ankle injury to drill 70 service aces, hit at a .279 clip, and burrow 320 digs. The Bears' premier defensive player, the 5-foot-6-inches tall senior was named as the first alternate (and only Division III consideree) for this summer's U.S. Olympic Festival.

Also returning from last year's squad are junior outside hitter Michelle Kirwan (Tampa, Fla.), who hit an astounding .442 in limited play last season; sophomore setter/outside hitter Leslie Catlin (Lawrence, Kan.), a gifted back-row player who will vie for the starting right-side hitter spot; sophomore setter Angela Suarez (St. Louis, Mo.), who ranked second on the team in assists in 1990; and sophomore middle blocker/outside hitter Christine Masel (Raytown, Mo.), a .375 hitter last year and a surprise star in the national championship match.

Complementing the strong returning cast is a group of eight newcomers that could easily be labeled Clemens' finest recruiting coup. Foremost on that list is sophomore middle blocker Amy Sullivan, who has immediate All-America potential. A native St. Louisan, the 6-foot Sullivan returns home after spending a year at Occidental College, where she led her team in kills and blocks as a freshman.

Freshman Anne Quenette (Springfield, Ill.) could also step straight into the Bear lineup and become a dominant force. Quenette earned first-team all-state honors in volleyball-rich Illinois and rejected a slew of Division I scholarship offers to attend Washington University.

CALENDAR

Aug. 29-Sept. 7

LECTURES

Friday, Aug. 30

Noon. Dept. of Physics Brown Bag Lunch. "Formation of Fe-rich Olivine by Condensation in the Solar Nebula," Stephan Weinbruch, U. of Darmstadt, Germany. Room 241 Compton.

Tuesday, Sept. 3

3 p.m. Plant Biology Program Thesis Defense. "Genetic Analysis of Tomato Yellow Leaf Curl Virus, a Geminivirus," Dean E. Rochester, WU Dept. of Biology. Room 322 Rebstock Hall.

Wednesday, Sept. 4

8 a.m. Dept. of Obstetrics and Gynecology Grand Rounds. "Role of Uterine Secretions in Early Development of the Embryo," R. Michael Roberts, J. Fred McKenzie Distinguished Professor in Reproductive Biology, and prof. of animal science and biochemistry, U. of Missouri, Columbia. Schwarz Aud., Maternity Hospital.

11 a.m. Assembly Series Presents the Fall Honors Lecture. "America in the Time of George Bush," Daniel Schorr, senior news analyst, National Public Radio. Graham Chapel. For more info., call 935-5285.

4 p.m. Dept. of Physics Colloquium. "Elementary Excitations in Strongly Correlated Many-Particle Systems," Manfred Ristig, U. of Koeln. Room 204 Crow Hall. (Reception: 3:30 p.m., Room 245 Compton Hall.) For more info., call 935-6276.

Thursday, Sept. 5

10 a.m. Molecular Biology Program Thesis Defense. "Characterization of a Pituitary N-Acetyl-Galactosamine-Transferase Which Specifically Recognizes Glycoprotein Hormones," Peter Lynn Smith, graduate student, WU Dept. of Pathology. Room 7738 Clinical Sciences Research Bldg.

4 p.m. Dept. of Earth and Planetary Sciences Colloquium. "The St. Louis Science Center," Dennis Wint, president, St. Louis Science Center. Room 102 Wilson Hall. For more info., call 935-5603.

Friday, Sept. 6

9:15 a.m. Dept. of Pediatrics Sixth Philip R. Dodge Lecture. "Mitochondrial Diseases: The Tale of Two Genomes," Darryl C. De Vivo, Sidney Carter Professor of Neurology and prof. of pediatrics, College of Physicians and Surgeons, Columbia U. Clopton Aud., 4950 Audubon Ave.

Noon. Dept. of Cell Biology and Physiology Seminar. "How Axons Decide Where to Form Synapses," Josh Sanes, WU Dept. of Anatomy and Neurobiology. Room 423 McDonnell Medical Sciences Bldg.

FILMS

Thursday, Aug. 29

7 and 9 p.m. Filmboard Foreign Series Presents "Ivan the Terrible, Part II," a Russian film with English subtitles. Room 100 Brown Hall. \$3. For 24-hour Filmboard hotline, call 935-5983.

Friday, Aug. 30

7 and 9:30 p.m. Filmboard Feature Series Presents "Highlander." (Also Aug. 30, same times, and Sept. 1 at 7 p.m.) Room 100 Brown Hall. \$3.

Midnight. Filmboard Midnight Series Presents "Excalibur." (Also Aug. 31, same time, and Sept. 1 at 9:30 p.m.) On Fri. and Sat., both the 9:30 p.m. and midnight films can be seen for \$4; both Sunday films can be seen for \$4.

Monday, Sept. 2

7 and 9 p.m. Filmboard Classic Series Presents "Letter From an Unknown Woman." (Also Sept. 3, same times.) Room 100 Brown Hall. \$3.

Wednesday, Sept. 4

7 and 9 p.m. Filmboard Foreign Series Presents "Loves of A Blonde," a Czechoslovakian film with English subtitles. (Also Sept. 5, same times.) Room 100 Brown Hall. \$3.

Friday, Sept. 6

7 and 9 p.m. Filmboard Feature Series Presents "Rebel Without a Cause." (Also Sept.

7, same times, and Sept. 8 at 7 p.m.) Room 100 Brown Hall. \$3.

Midnight. Filmboard Midnight Series Presents "Beyond The Valley Of The Dolls." (Also Sept. 7, same time, and Sept. 8 at 9:30 p.m.) Room 100 Brown Hall. \$3. On Fri. and Sat., both the 9:30 p.m. and midnight films can be seen for \$4; both Sunday films can be seen for \$4.

EXHIBITIONS

"Washington University Art Collections."

Through May 1992. Gallery of Art, upper and lower galleries, Steinberg Hall. Exhibit hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. For more info., call 935-5490.

"New Faculty Works."

Through Sept. 15. Exhibit will feature works by eight new fine arts faculty and will include photography, sculpture, painting, graphic design, metalsmithing, drawing, and multimedia works. Bixby Gallery, Bixby Hall. Exhibit hours: 10 a.m.-4 p.m. weekdays; 1-5 p.m. weekends. For more info., call 935-4643.

"The Scientific Journal: Landmark Articles."

Through Sept. 6. Special Collections, Olin Library, Level 5. Exhibit hours: 8:30 a.m.-5 p.m. weekdays. For more info., call 935-5487.

"The Tooth Is a Sensible Bone."

Through August. Glaser Gallery, Archives and Rare Books Division, Medical Library, 660 S. Euclid Ave. Exhibit hours: 8:30 a.m.-5 p.m. weekdays; 8:30 a.m.-6 p.m. Saturdays; and 1-10 p.m. Sundays. For more info., call 362-4234.

"An American Collection: Paintings and Sculpture From the National Academy of Design."

Opening reception: 7-9 p.m. Sept. 6. Exhibit continues through Nov. 3. Gallery of Art, upper gallery, Steinberg Hall. Exhibit hours: 10 a.m.-5 p.m. weekdays. For more info., call 935-5490.

SPORTS

Friday, Aug. 30

5 p.m. Men's Soccer. WU vs. Illinois College. Francis Field.

Saturday, Sept. 7

7 p.m. Football. WU vs. Kentucky Wesleyan College. Francis Field.

MUSIC

Tuesday, Sept. 3

4 p.m. Dept. of Music Wind Ensemble Auditions. Openings in woodwind, brass and percussion sections. Room B-8 Blewett Hall. For more info., call 935-5505.

Wednesday, Sept. 4

7 p.m. Dept. of Music Symphony Orchestra Auditions. Openings in all string and wind sections. Room B-3 Blewett Hall. For more info., call 935-5505.

7:30 p.m. Performing Arts Dept. Auditions for WU Dance Theatre Concert. Olin Studio, Women's Bldg. For more info., call 935-5858.

Thursday, Sept. 5

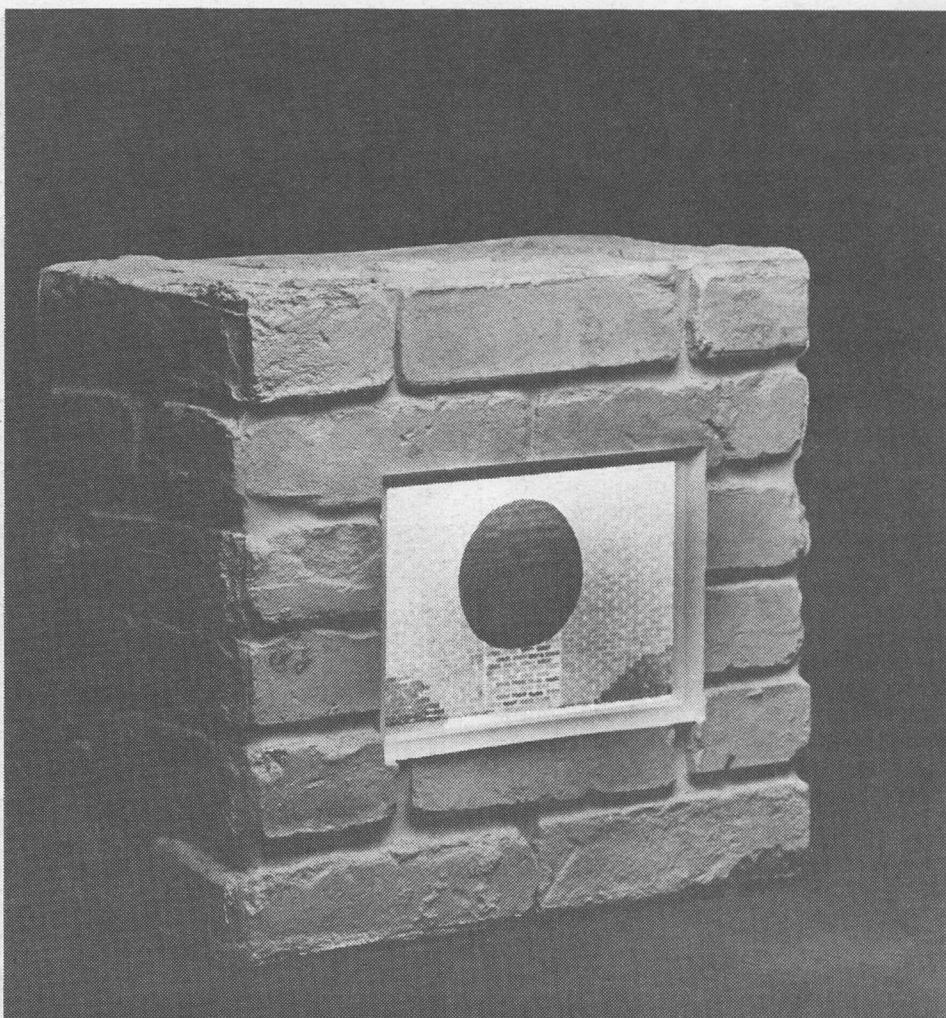
4-5 p.m. International Studies Fulbright Application Writing Workshop. Designed for seniors and graduate students interested in applying for a Fulbright Fellowship for research, teaching or study abroad. Stix International House. For more info., call 935-5958 or 935-5477.

Calendar Deadline

The deadline to submit items for the Sept. 5-14 calendar of the Record is Aug. 30. 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 Deborah Parker, calendar editor, Box 1070, or by electronic mail to p72245DP at WUVMC.

p.m. Wednesday, Sept. 4.

The wind ensemble and the symphony orchestra are both directed by Dan Presgrave. The groups perform regular concerts during the academic year at the St. Louis Art Museum. For information or to schedule an audition, call 935-5581.



Included in the "New Faculty Works" exhibit at Bixby Hall is the piece pictured above. The work is part of an untitled series by artist Dan Loewenstein, who uses bricks to create different patterns.

Whole spectrum of visual arts to be on display in Bixby Gallery

An exhibit displaying the whole spectrum of visual arts, from video to metalsmithing, will be on display at Washington University's Bixby Gallery in Bixby Hall through Sept. 15.

The exhibit, titled "New Faculty Works," features works by eight new fine arts faculty members and will include photography, sculpture, painting, graphic design, metal-smithing, drawing, printing, and multimedia works.

John Baltrushunas, lecturer in art, received his master's degree in fine arts from Washington University in 1974. The Boston native, who is a metalsmith, has lived in St. Louis since then and has taught at both the University and elsewhere in St. Louis over the past 17 years.

Hal E. Bundy refers to himself as a multimedia artist. Trained in both computer technology and the visual arts, Bundy's work explores ways to further mesh the two disciplines. Bundy, who is both a lecturer and research assistant.

Rudie Daniel Ershen, lecturer in art, is a commercial photographer whose work is well known in St. Louis. His client list includes many large corporations such as Anheuser-Busch, Mercantile Bank, Wehrenberg Theatres and Monsanto. The exhibit will include examples both of Ershen's commercial work and his personal work. The latter includes black-and-white infrared photographs with various themes and some hand-colored black-and-white photographs.

Ralph Gilbert's drawings and prints have been exhibited in numerous solo shows nationwide, from New York City to Los Angeles. Gilbert, who is a visiting assistant professor, is represented by both Marilyn Pink Gallery in Los Angeles and Childs Gallery in New York.

Visiting assistant professor Daniel F. Loewenstein is a sculptor and a three-dimensional artist whose work involves large-scale installations and performance art. One of his most recent works, "BARRACKS (Where

men would wait for war) and NIKE - EUCALYPTUS," is a site-specific installation at a barracks at decommissioned Fort Barry in Marin County, Calif. The work includes army cots, eucalyptus limbs, 80-year-old petrified sandbags and two 15-foot figures made from eucalyptus bark. The aroma of local sage permeates the site.

Visiting associate professor Phyllis Plattner, an award-winning painter, has taught at the University several times before. In 1989 she was the Distinguished Wallace C. Smith Visiting Artist. From 1976 to 1988 she taught painting, watercolor and two-dimensional design courses at the University. Selections from her series "Murder in the Kitchen," featuring still-lives of fruits, vegetables and knives, will be included in the exhibit. Plattner's works are in numerous museum and corporate collections, including the St. Louis Art Museum, the Washington University Gallery of Art, IBM, AT&T, Mark Twain Bancshares, and the Xerox Corp.

Linda Solovic, lecturer in art, is a St. Louis-based illustrator. A 1974 graduate of the University's School of Fine Arts, Solovic's clients include Anheuser-Busch, Missouri Tourism Board, Southwestern Bell and Barnes Hospital.

Assistant professor Denise Ward-Brown earned her master's of fine arts at Howard University in Washington, D.C., and her bachelor's at the Tyler School of Art at Temple University in Philadelphia. Ward-Brown, a sculptor, has had several solo exhibitions of her work and has been included in group shows up and down the East Coast. Her work has been reviewed in New Art Examiner and The Washington Post.

Bixby Gallery is open from 10 a.m. - 4 p.m. weekdays and 1-5 p.m. weekends. Admission is free.

The gallery is closed over Labor Day weekend and will reopen Sept. 3. For more information, call 935-4643.

Music department will hold auditions

The Department of Music will hold auditions for the 1991-92 wind ensemble and the symphony orchestra in Blewett Hall.

Auditions for the wind ensemble will be held from 4-6:30 p.m. Tuesday, Sept. 3. Auditions for the symphony orchestra will be held from 7-9:30