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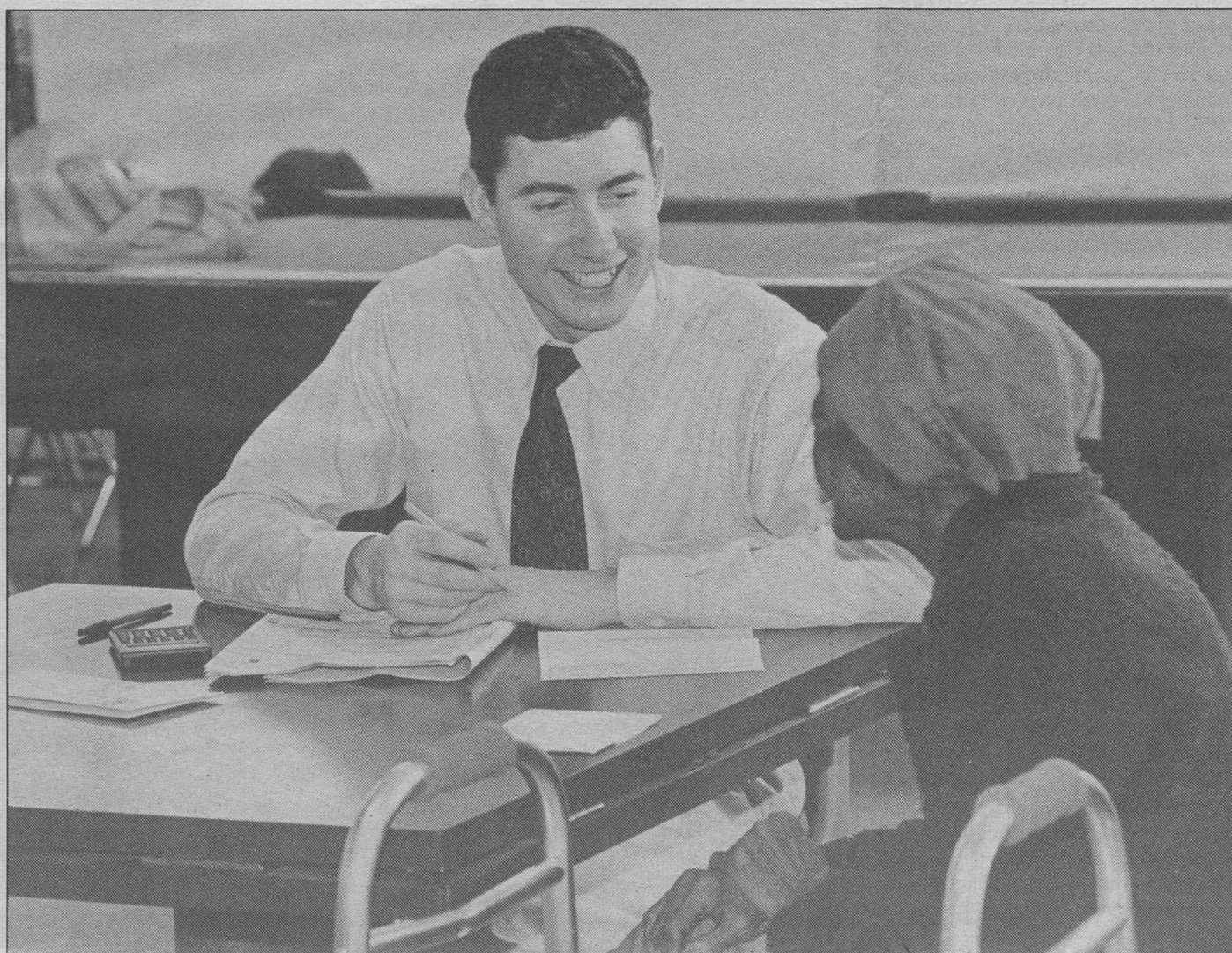
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Record

Indexed

WASHINGTON
UNIVERSITY
IN ST. LOUIS

Vol. 17 No. 22 March 4, 1993



Steven R. Schneider, a second-year law student, helps Helen Ruffing file her taxes. About 40 law students are involved in the Volunteer Income Tax Assistance (VITA) program. Schneider founded the Washington University chapter of VITA last year. The nationwide program, which is sponsored by the Internal Revenue Service, helps the poor and elderly file tax forms. Schneider, who is studying tax law, said volunteering for VITA is a good way to perform community service while honing his client-counseling skills. The group will be assisting taxpayers on Saturday mornings through mid-April. For more information, call 725-5730.

Activities highlight issues, trends facing American Indians

A powwow, poetry readings and storytelling activities are just some of the campus events promoting American Indian awareness from March 22 through 27. The activities, which are free and open to the public, are sponsored by the Center for American Indian Studies at the George Warren Brown School of Social Work.

Dana Klar, J.D., center director, said that American Indian Awareness Week will highlight the important trends and issues facing today's American Indian population.

"Our goal is to make the campus and the greater St. Louis area aware of the contemporary status of American Indians," said Klar.

The week's activities will culminate with the powwow, scheduled for 1 to 10 p.m. March 27 in Mudd Field. (In case of inclement weather, the event will be in Francis Gymnasium.) The third annual powwow will include American Indian dancers from across the country, trading booths, storytelling and food.

Following is a list of the activities scheduled for the week. Unless otherwise noted, all events will take place in Brown Hall Lounge at the George Warren Brown School of Social Work.

March 22 — Three documentaries on American Indian life are scheduled: "In the Image of the White Man" at 10 a.m.; "The Spirit of Crazy Horse" at noon; and "The Faithkeeper" at 2 p.m.

A panel discussion, titled "American Indian Women's Issues," is scheduled for 5 to 6 p.m. Discussion leaders will be Rose Mary Shaw, an Osage who is a student at the George Warren Brown School of Social Work, and Stephanie Birdwell, a Cherokee who is a student at the School of Law.

March 23 — A talk and slide show "The Contributions of American Indians to Sports History" is scheduled for 3 to 4 p.m. and will be presented by James W. McIntosh, a Cherokee and a Washington graduate student in social work. In 1985, McIntosh founded American Indian Athletic Research, a national organization that researches the contributions of American Indians to sports history.

Continued on page 6

Programmable hearing aids

Technology adapts to listening environment, provides better sound

Roughly 18 million Americans need hearing aids but are reluctant to try them. An up-and-coming hearing aid technology that adapts to the listening environment and produces better sound quality may be a more tempting option, says an audiologist at Washington University School of Medicine.

Called digitally programmable hearing aids, they also may mean better hearing for the four million Americans who already have aids, says Michael Valente, Ph.D., director of adult audiology and assistant professor of otolaryngology.

"Digitally programmable aids may be the next frontier in hearing aids. Their potential impact is quite significant," Valente says. Their power is two-fold: they store several different settings to help wearers adjust to the listening environment, and they reduce background noise for better understanding of speech in noisy environments. The aids have been trickling into the market for about four years, and new models are continually being developed, Valente says. But the technology is still not very well known by the general public. He hopes greater awareness of these and other advances will help change hearing aids' negative image, he says.

Valente has worked with hearing aids for 17 years and has evaluated programmable aids since they hit the market. He currently is evaluating several pre-market

designs in about 40 patients. He will present his latest findings at the April meeting of the American Academy of Audiology. In addition, Valente has contributed a chapter to the book *Digitally Programmable Technology*, edited by Bob Sandlin, due out in the fall of 1993. He is editing the book *Strategies for Selecting and Fitting Hearing Aids*, due for publication in fall 1993 or spring 1994.

Most revolutionary is programmable aids' capacity for storing into memory two to eight separate hearing aid responses. Using a remote control or different settings on the hearing aid, wearers can switch from one memory to another, depending on the listening situation. Programs can be designed to improve speech communication in noisy rooms, for quiet talks, for music, or for talking on the telephone, for example. "As the listening environment changes, the person can instantaneously retrieve another hearing aid response that is more applicable to that environment. Previous technology couldn't do that," Valente says.

The aids also produce a more natural, less tinny and less distorted sound for most patients, says Valente. And they can be tuned to match a person's individual hearing needs more closely than can conventional aids, he adds. To fit a conventional aid, audiologists analyze the patient's hearing and take an "educated guess" in selecting an appropriate circuit design to yield the best results, Valente explains. The aid is then sent to the manufacturer for inclusion of the selected circuit design into the aid. When a person's hearing changes, he or she must return it to the manufacturer for adjustments and wait a week or two to get it back.

Programmable aids are adjusted within minutes. Patients wear the aid and listen to various sounds as audiologists vary the aid's settings. "They tell us when the sound quality is most natural and when it results in high speech intelligibility. Once we've

Continued on page 8

Russian writer to give reading, commentary

Russian essayist and short story writer Tatyana Tolstaya will give a reading and commentary for Foreign Language Week at 11 a.m. March 17 in Graham Chapel. Her talk is part of the Assembly Series and is free and open to the public. For a complete schedule of Foreign Language Week events, see calendar on page 5.

On March 17 Tolstaya also will participate in an informal discussion at 2 p.m. in Room 220 Busch Hall, which is free and open to the public. This spring Tolstaya, a Moscow resident, is visiting senior fellow in the Council of the Humanities and Old Dominion Fellow in Slavic Languages and Literatures at Princeton University. Tolstaya's first collection of short stories,

On the Golden Porch, was first published in Russian in 1987 and sold out immediately. This critically acclaimed work, which was published in English in 1989, has been translated into all European languages. Her second collection of short stories, *Sleepwalker in a Fog*, was published in 1992.

Former Poet Laureate of the United States Joseph Brodsky and others have acclaimed Tolstaya's verbal mastery, vivid imagination and profound originality. She received the 1989 Pushkin Prize in Germany and the 1990 Premio Grinzane Cavour in Italy.

Tolstaya is a member of the editorial board of the magazines *Syntaxis*, in Paris,

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Spring break

The Record will not be published during the week of spring break. The next issue is dated March 18, 1993.

In This Issue...

Gender differences: Study reveals a physiological difference in the way men and women improve their cardiovascular fitness *Page 2*

PSA test: William Catalona's study of this cancer screening tool may mean the difference between life and death for older men *Page 3*

Independent review completed of psychiatry department's federal research funding *Page 6*

Medical Update

Hearts of older women, men respond differently to exercise

Older women's heart function — or pumping capacity — does not improve like that of older men after exercise training, according to investigators at the School of Medicine.

Researchers studied 10 sedentary, but healthy women aged 60 to 70 for one year to learn whether their hearts, like those of their male counterparts, increase in size in response to endurance exercise such as walking or jogging. Physiological enlargement is one way the heart adapts to exercise training and improves its pumping capacity. This occurs in older men as well as younger men and women. After one year of 60-minute workouts four times a week, the women improved their aerobic exercise capacity level by 21 percent — similar to men their age — but their heart function did not improve.

"We know from previous studies in older men who underwent the same kind of training program as these women that the heart adapts to training by improving its pumping action, which is a normal response," says Robert J. Spina, Ph.D., research assistant professor of medicine and one of the study's investigators. "It came as a complete surprise to us when we didn't see the same response in the women."

The women in this study, none of whom had exercised for at least three years, were healthy and had no significant risk factors for coronary heart disease, such as family predisposition, high cholesterol, diabetes or hypertension. "These women were generally healthy and that's very important to this study," says Spina. "We looked at the effects of exercise training on the aging process, not on the aging process compounded by effects of disease."

Spina's study is the first to show that older women, in response to exercise training, can improve their exercise capacity without cardiac adaptations. It reveals a physiological difference in the way men and women improve their cardiovascular fitness. Results of the study appear in the January 1993 issue of the *American Journal of Cardiology*.

Improving exercise capacity

Aerobic exercise capacity is determined in part by how much blood and oxygen the

heart supplies to muscles during exercise. It is evaluated by measuring the amount of oxygen a person uses during aerobic exercise. The greater the amount of oxygen consumed, the greater the level of fitness.

To improve exercise capacity and increase oxygen consumption, Spina says the heart must increase the amount of blood it pumps and/or the muscles must improve their ability to extract oxygen from blood.

"Blood enters muscle through the arteries and drains through the veins," he explains. "There's oxygen in the veins but there's more oxygen in the arteries, and the difference between the two amounts reflects how much oxygen the muscle removed. This ability to extract more oxygen increases in response to exercise training. That's how the women increased their oxygen consumption."

The women in Spina's study prepared for the rigorous endurance exercise program by doing flexibility exercises the first three months. During the initial phase of the endurance training program, they exercised at 60 percent of their maximal heart rate. Maximal heart rate is the highest heart rate you can achieve during exercise. During the last three months of training, the women exercised at 80 percent of their maximal heart rate, which is considered vigorous exercise. Exercises included walking, jogging, cycling and some work on rowing machines.

As a result of the training, Spina says small blood vessels surrounding the women's muscles proliferated, enabling the muscles to extract more oxygen from blood. He says the same response occurs in men, yet their hearts also adapt by growing larger and contracting more efficiently so they can pump more blood throughout the body.

Although Spina says he doesn't know why older women don't undergo the same cardiac adaptations as men, he says one possible explanation may be related to a sex hormone deficiency. "We see cardiac adaptations in younger women that we don't see in the older women," he explains.

Spina, who plans a follow-up study to learn why cardiac adaptations did not occur in older women, says the purpose of the work is to learn how physiological adaptations to exercise can be applied to health maintenance and prevention of disease.



Robert J. Spina, Ph.D., research assistant professor of medicine, talks with Millie Jost, who participated in a study that showed a physiological difference in the way older men and women improve their cardiovascular fitness.

"From that point of view, we believe exercise is important and can be very useful for health promotion in the elderly," he says.

— Kleila Carlson

Kipnis named master in the American College of Physicians

David M. Kipnis, M.D., Distinguished University Professor and former head of the Department of Medicine at the School of Medicine, has been selected to become a Master of the American College of Physicians (ACP).

Kipnis, who came to Washington University in 1955 as an ACP research fellow, joins Michael M. Karl, M.D., clinical professor of medicine, who became a Master in 1990. The late Carl V. Moore, former president of Washington University Medical Center and the School of

David M. Kipnis

Medicine's first vice chancellor for medical affairs, was the first Missouri physician to earn the ACP honor. Of the ACP's 75,000 members, only about 200 have achieved mastership.

Masters are ACP fellows who because of renown in medical practice or research, positions of honor and influence, and personal character are recommended by the Awards, Masterships and Honorary Fellowships Committee to the ACP Board of Regents. The Board of Regents selects Masters recipients, who will receive their awards in April at the organization's 74th annual session in Washington, D.C.

Head of the Department of Internal Medicine from 1973 until 1992, Kipnis now devotes most of his time to research

and working with foundations and corporations. Regarded as a pioneer in diabetes research, Kipnis has worked to learn the mechanisms of sugar and amino acid transport and regulation of insulin released by islet cells in the pancreas. He is the principal investigator in the Diabetes Research and Training Center at Washington University. Kipnis' research has been cited for numerous awards, including the Endocrine Society's Ernest Oppenheimer Award and the American Diabetes Association's Lilly Award.

Kipnis was instrumental in establishing the Washington University/Monsanto Biomedical Research agreement — the

largest research collaboration between an American company and an American University. It has provided nearly \$100 million in research funding. He is also the chairman of the Scholar Advisory Committee of the Lucille P. Markey Charitable Trust.

Kipnis is a member of many professional societies, including the Association of American Physicians, the American Society for Clinical Investigation, the American Diabetes Association and the American College of Physicians. He is also a member of the American Academy of Arts and Sciences, the National Academy of Sciences and the Institute of Medicine.

Holtzman named director of pulmonary division

Michael J. Holtzman, M.D., has been named director of the Division of Pulmonary and Critical Care Medicine.

Prior to this appointment, Holtzman served as interim co-director of the division, which was formerly known as the Respiratory and Critical Care Division.

Holtzman, associate professor of medicine, studies the biochemistry of the respiratory epithelium, the layer of cells lining the respiratory tract. The goal of his work is to understand how these cells might mediate inflammatory and immune responses underlying diseases such as chronic bronchitis, asthma and cystic fibrosis. Recent studies in his laboratory are aimed at explaining how immune system cells called leukocytes migrate into and through the respiratory epithelium and other epithelial barriers to reach inflammatory sites.

He came to Washington University as an assistant professor in 1987 and became an associate professor in 1990. Before joining the faculty, he was an assistant professor of medicine at the University of California, San Francisco (UCSF), and a staff member at UCSF's Cardiovascular Research Institute. He currently is a staff physician at Barnes Hospital and Barnes West County Hospital. In addition, he serves as associate medical director and director of research for Barnes West County's Asthma Center.

Holtzman is a Career Investigator of the American Lung Association and a member of several scientific organizations, including the American Academy of Allergy and Immunology, the American Thoracic Society and the honorary medical society Alpha Omega Alpha.

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Washington
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Washington People

Catalona's patients inspired landmark research

This age is awash in abbreviations — FBI, NBA, GOP, IBM, ASAP.

William J. Catalona, M.D., professor of urological surgery at the School of Medicine, can take credit for helping popularize one more abbreviation — PSA — that may spell the difference between life and death for older men.

PSA stands for prostate-specific antigen, a protein that physicians measure in a blood test to detect prostate cancer in its early, curable stages. Physicians have used the test for about two years, and thousands of men now make it part of their annual checkup.

The test's rapid popularity reflects the severity of the disease. Claiming 35,000 lives a year in the United States, prostate cancer is the second leading cause of cancer deaths for men.

Catalona established the superiority of the PSA test over other methods of prostate cancer detection in a landmark study published in 1991 in the *New England Journal of Medicine*. The study attests not only to his research skills, but to what makes him tick as an acclaimed clinician. Catalona has seen prostate cancer written off as an "old man's disease" that didn't merit much of a fight. And before 1991, PSA had been dismissed as an ineffective diagnostic tool. Catalona, however, is not one to blithely accept conventional wisdom in the face of his patients' suffering.

"When you take care of these patients, and they die, you die with them," says Catalona, director of the Division of Urology in the Department of Surgery at the medical school.

Colleagues describe the silver-haired Catalona as intense, methodical, no-nonsense and above all, compassionate.

"His approach toward patient care is disciplined and professional, but caring," says Gerald L. Andriole, M.D., an associate professor of urology who studies PSA with Catalona.

The object of Catalona's inquiry is an organ that many men don't realize they have. The size of a walnut, the prostate gland sits under the male bladder, producing semen. For one of every 11 men, the gland eventually turns cancerous, according to the American Cancer Society.

More than 125,000 cases develop each year. The most common cancer in men over 50, prostate cancer is second only to lung cancer in the number of lives it claims.

For years, the standard method to detect prostate cancer was a rectal exam. The doctor's finger would feel for any suspicious lumps that might warrant a biopsy. But rectal exams miss 30 percent to 40 percent of prostate cancers, which are often slow growing, says Catalona. The unearthed cancers typically have spread throughout the body, "which may explain the high death rate," he adds.

Another problem with rectal exams is that most men shun them. "Unless a man is having some problem, 90 percent don't have a routine rectal exam," says Catalona.

Until recently, society, like many men, has looked the other way regarding prostate cancer. "It's been an ignored cancer," says Catalona. "It's been considered an old man's disease. Society has adopted the attitude that 'This man's had a good life. The cancer is unfortunate, but that's the way it goes.'"

The victim, of course, has a different point of view. To him, the timing of the disease is cruel. It usually strikes close to retirement age.

"A man has worked hard all his life," says Catalona. "He's looking forward to reaping the benefits of his labors and seeing his grandchildren grow up. So the man retires, gets ready to enjoy life, and bang — he's diagnosed with prostate cancer. Everything he's planned and worked for becomes very uncertain."

Not long ago, the National Cancer Institute made early detection and treatment of prostate cancer a top priority. Physicians were abuzz at the time about screening for the tumors using an ultrasound probe inserted in the rectum. Catalona was skeptical, though. Men would be just as squeamish about this technique as they were about traditional rectal exams, he reasoned.

Catalona turned to PSA. Discovered in 1971, prostate-specific antigen is a protein produced only in the

prostate. Above-average PSA levels in the bloodstream may indicate cancer, but they also may indicate that the gland is merely enlarged. In addition, some cancerous prostate glands produce normal amounts of PSA. This ambiguity led physicians to initially dismiss PSA as a screening tool. However, they have relied on PSA to monitor the progress of patients after the removal of a

Those with above-average PSA levels — more than 4 nanograms per milliliter of blood — underwent rectal exams and ultrasonography. If either test yielded abnormal findings, a biopsy was performed. An additional control group of 300 men were biopsied based on rectal exams, PSA readings and other indicators. The results of the first two years of the study were published in the *New England Journal of Medicine*:

One-hundred thirty seven, or 8 percent, of the 1,653 men undergoing PSA tests had elevated levels. Of this group, 112 were biopsied, and 37 were discovered to have prostate cancer.

Most of the 37 men, especially those with mildly elevated PSA levels, had cancer that was confined to the prostate.

If used alone, rectal exams would have missed 32 percent of the tumors; ultrasonography would have overlooked 43 percent.

The PSA test had the lowest error rate of all three tests. The combination of PSA and rectal exam scored the lowest error rate of all.

These numbers have held true for an additional 17,000 men who have participated in the PSA study through 1992, according to Catalona. The upshot of all the statistics, he says, is that PSA detects more tumors, and more at the beginning stages, than rectal exams or ultrasonography. Earlier detection and treatment improve the chances of curing the disease as well as preserving bladder control and sexual function.

The findings of Catalona and researchers elsewhere have prompted the American Urological Association and the American Cancer Society to recommend an annual blood test for PSA along with a rectal exam for men age 50 and over. Former skeptics of PSA screening have been converted.

"We originally felt PSA wouldn't have a major role in detection," says Joseph E. Oesterling, M.D., an assistant professor of urology at the Mayo Medical School (sister institution of the Mayo Clinic) who pioneered research into PSA as a post-operative tumor marker.

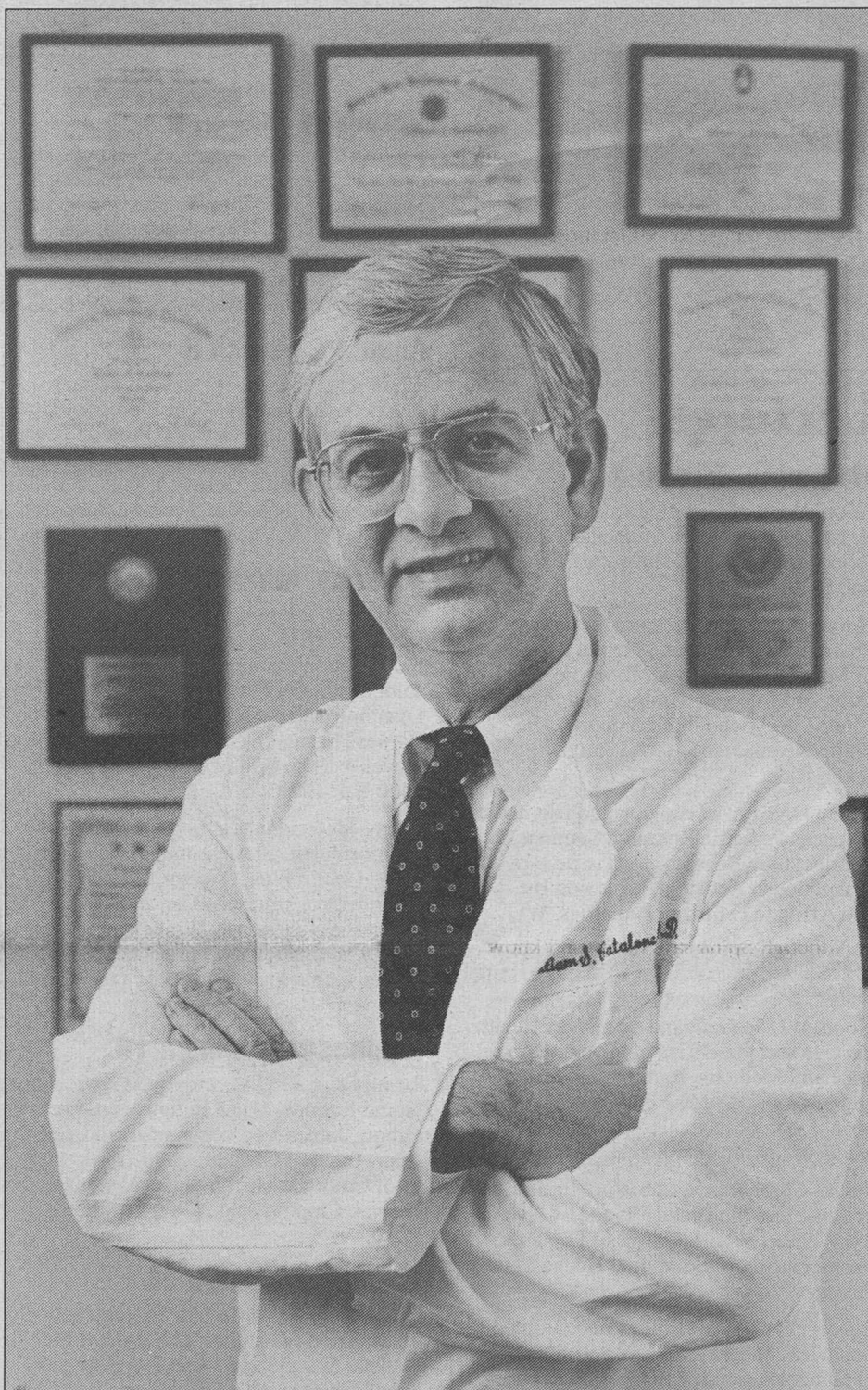
"Catalona's work clearly demonstrates that PSA is better than rectal exams. He's right on the money." One man who probably owes his life to a PSA test is Sen. Robert Dole of Kansas. In July 1991, Dole had a routine physical that included a rectal exam and a PSA test. The rectal exam turned out normal, but Dole's PSA level was slightly elevated. A biopsy determined

that Dole had prostate cancer. After the gland was removed, Dole talked about his cancer on television shows like "Today" and "Larry King Live" and urged men to get PSA tests.

"Bob Dole has done a wonderful thing," says Catalona. "He's done for prostate cancer what Betty Ford did for breast cancer." The notion of massive PSA screenings, however, has stirred considerable debate in medical circles. Some physicians have argued against it, saying that the tests would detect many slow-growing, non-lethal tumors, trigger unnecessary treatments, and waste valuable health-care dollars in the process. The National Cancer Institute hopes to help settle the debate with a 15-year study that, among other things, will determine whether PSA screenings actually reduce the disease's mortality rate. The NCI selected the Washington University medical school as one of 12 institutions nationwide to conduct the study. Gerald Andriole will head the investigative effort here, funded by a \$7.1 million NCI grant.

In the meantime, Catalona says, every man over age 50 should still get a yearly PSA test along with a rectal exam. He says there's enough evidence already to justify erring on the side of caution. Critics of mass screening, he adds, might change their minds if they met his patients.

"When you're in the trenches, you realize what a tremendous boon this is," he says. "I do see real human beings everyday who have prostate cancer. They come to me and they're very frightened. In the past, when we put them through surgery, for seven out of 10, it was too late. If we could have detected the cancer a year or two earlier, it would have made a difference between curing them and not curing them."



"I do see real human beings everyday who have prostate cancer. They come to me and they're very frightened. ... If we could have detected the cancer a year or two earlier, it would have made a difference between curing them and not curing them."

cancerous prostate gland, a procedure called a radical prostatectomy. If PSA levels drop to zero, it's proof that the cancer hasn't spread.

Although initially Catalona thought PSA had drawbacks as a screening tool, he was hopeful it would outperform the notoriously inaccurate rectal exam. Plus, he thought, men wouldn't be loathe to undergo a blood test.

Catalona and a team of medical school researchers launched a five-year study of PSA in healthy men over the age of 50.

Calendar

March 4-20



Exhibitions

School of Fine Arts Juried Student Exhibit. Opening: 5-7 p.m. March 19. Exhibit continues through March 28. Bixby Gallery, Bixby Hall. For more info., call 935-4643.

"Perspectives: Jarvis Thurston and Mona Van Duyn." Through May 7. Olin Library, Special Collections, Level 5. Hours: 8:30 a.m.-5 p.m. weekdays. For more info., call 935-5495.

"Bruce Nauman: Light Works." Through March 21. Gallery of Art, upper gallery, Steinberg Hall. Hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. For more info., call 935-4523.

"Washington University Art Collections — 19th- and 20th-century European and American Artists." Through May. Gallery of Art, lower gallery, Steinberg Hall. Hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. For more info., call 935-4523.

"Goddesses and Queens" coin exhibit. Through July 3. Gallery of Art, lower gallery, Steinberg Hall. Hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. For more info., call 935-4523.



Films

Thursday, March 4

7 p.m. Dept. of Asian and Near Eastern Languages and Literatures Japanese Film Series presents "An Autumn Afternoon" (in Japanese with English subtitles). Room 219 South Ridgley Hall.

Monday, March 15

3 p.m. Dept. of Russian film, "Autumn Marathon" (in Russian with English subtitles), winner of a grand prize at the San Sebastian Film Festival. Room 219 South Ridgley Hall. For more info., call 935-5177.

6:30 and 9:30 p.m. Filmboard Foreign Series presents "La Dolce Vita" (in Italian with English subtitles). (Also March 16, same times.) Room 100 Brown Hall. Cost: \$3. For 24-hour Filmboard hotline, call 935-5983.

Thursday, March 18

7 p.m. Dept. of Asian and Near Eastern Languages and Literatures Japanese Film

Calendar guidelines

Events sponsored by the University — its departments, schools, centers, organizations and its recognized student organizations — are published in the Calendar. All events are free and open to the public, unless otherwise noted.

Calendar submissions should state time, date, place, sponsor, title of event, name of speaker(s) and affiliation, and admission cost. Quality promotional photographs with descriptions are welcome. Send items to Marie Doss at Box 1070 (or via fax: 935-4259). Submission forms are available by calling 935-8533.

The deadline for all entries is noon Tuesday one week prior to publication. Late entries will not be printed. The Record is printed every Thursday during the school year, except holidays, and monthly during the summer. If you are uncertain about a deadline, holiday schedule, or any other information, please call 935-8533.

Series presents "Rashomon" (in Japanese with English subtitles). Room 219 South Ridgley Hall.

Friday, March 19

7 and 9:30 p.m. Filmboard Feature Series presents "101 Dalmatians." (Also March 20, same times, and March 21, 7 p.m.) Room 100 Brown Hall. Cost: \$3.

Midnight. Filmboard Midnight Series presents "Wizards." (Also March 20, same time, and March 21, 9:30 p.m.) Room 100 Brown Hall. Cost: \$3.



Lectures

Thursday, March 4

Noon. Dept. of Genetics seminar, "The Yeast Kinetochore: A Molecular Motor," John Carbon, U. of California. Cori Aud., 660 S. Euclid Ave.

Noon. Dept. of Molecular Biology and Pharmacology lecture, "Neural Regulation of Muscle Genes," John P. Merlie, prof., Dept. of Molecular Biology and Pharmacology, WU School of Medicine. The Philip Needleman Library, Room 3907 South Bldg.

Noon. Division of Biology and Biomedical Sciences Pediatric Research Seminar, "Endocytotic Receptor for Tissue-type Plasminogen Activator," Gusojon Bu, Aha Mo Affiliate Fellow in Pediatrics, WU School of Medicine. Third Floor Aud., St. Louis Children's Hospital, 400 S. Kingshighway.

Noon. WU Student and Employee Health Service and the Office of Women in Science and Medicine seminar, "Women and Depression," Wendy Reich, research asst. prof., Dept. of Psychiatry, WU School of Medicine. Wohl Hospital Bldg. Aud.

4 p.m. Comparative Literature lecture, "The Tempest and the Brazil Voyage of Jean de Léry," Janet Whatley, prof. of French, U. of Vermont. Stix International House Living Room.

4 p.m. Division of Biology and Biomedical Sciences Student-sponsored Seminar, "Flagellar Assembly in *Chlamydomonas*: A New Motility Associated With the Eucaryotic Flagellum," Joel Rosenbaum, Yale U. Erlanger Aud., McDonnell Medical Sciences Bldg.

4:30 p.m. Dept. of Mathematics colloquium with Jerry Lodder, prof., New Mexico State U., Las Cruces. Room 199 Cupples I Hall. (Tea: 4 p.m., Room 200.)

Friday, March 5

1 p.m. Solid-state Engineering and Applied Physics seminar, "Analytical Models of High Electron Mobility Transistors (HEMTs)," P.W. Chen, graduate student, WU Dept. of Electrical Engineering. Room 305 Bryan Hall.

4 p.m. Dept. of Anatomy and Neurobiology seminar, "The Bradykinin Receptor as the Energizer Bunny (It Keeps Going and Going...)," Nancy Baenziger, research assoc. prof., Dept. of Anatomy and Neurobiology, WU School of Medicine. Room 928 McDonnell Medical Sciences Bldg.

4 p.m. Dept. of Earth and Planetary Sciences colloquium, "Evolution of the Hawaiian Hotspot Swell and Hawaiian Volcanism," Mian Liu, asst. prof., U. of Missouri, Columbia. Room 361 Natural Sciences Bldg.

4 p.m. Division of Hematology/Oncology seminar, "MAP Kinase and the Cartography of Signal Transduction," Michael Weber, U. of Virginia, Charlottesville. Room 7732 Clinical Sciences Research Bldg.

4 p.m. Microbial Pathogenesis seminar, "Lipophosphoglycan of *Leishmania*: A

Multifunctional Virulence Factor," Salvatore Turco, Dept. of Biochemistry, U. of Kentucky Medical School, Lexington. Room 775 McDonnell Medical Sciences Bldg.

6 and 8:30 p.m. WU Association Travel Lecture Series, "The Himalayas — Life on the Rocks," by Dennis Burkhart, whose films exemplify his photographic skill and love of the wilderness. Graham Chapel. Cost: \$4.50 at the door. For more info., call 935-5212.

Saturday, March 6

9 a.m. Dept. of Anatomy and Neurobiology seminar, "The Potential Use of Trophic Factors for CNS Transplantation, Regeneration and Rescue," Tim Flemming, asst. prof., Dept. of Ophthalmology and Visual Science, WU School of Medicine. Erlanger Aud., McDonnell Medical Sciences Bldg.

Monday, March 8

12:30 p.m. Society of Professors Emeriti luncheon and lecture, "The New Cartographers: The Human Genome Project," Helen Donis-Keller, director of the Division of Human Molecular Genetics, WU School of Medicine. King Room, Medical School Library, 660 S. Euclid Ave.

Tuesday, March 9

12:10 p.m. Program in Physical Therapy lecture, "Effect of Total Contact Cast Immobilization on Subtalar and Talocrural Joint Motion in Patients With Diabetes," Jay Diamond, supervisor, Orthopedic Division, Barnes Hospital Dept. of Physical Therapy. Steven J. Rose Conference Room, Room 3400 East Bldg.

4 p.m. Molecular Microbiology seminar, "Dimorphism, an Asymmetric Cell Division," Gerald Fink, director, Whitehead Institute and American Cancer Society Professor of Genetics, Whitehead Institute and Dept. of Biology, Massachusetts Institute of Technology. Cori Aud., 660 S. Euclid Ave.

Wednesday, March 10

8 a.m. Dept. of Obstetrics and Gynecology Grand Rounds, "New Initiatives in Preterm Labor," James McGregor, prof. and vice chair, Dept. of Obstetrics and Gynecology, U. of Colorado Health Sciences Center, Denver. Clopton Aud., 4950 Children's Place.

Thursday, March 11

Noon. Dept. of Molecular Biology and Pharmacology lecture "The Role of FGF in Skeletal Muscle and Limb Development," Brad Olwin, Dept. of Biochemistry, U. of Wisconsin, Madison. The Philip Needleman Library, Room 3907 South Bldg.

Noon. Division of Biology and Biomedical Sciences presents the Lucille P. Markey Special Emphasis Pathway in Human Pathobiology 1993 Spring Seminar Series, "The Structure and Replication of Kinetoplast DNA in Trypanosomes," Paul Englund, Johns Hopkins U. School of Medicine. Erlanger Aud., McDonnell Medical Sciences Bldg.

Friday, March 12

4 p.m. Dept. of Surgery lecture, "The Melanoma Epidemic and Its Selective Surgical Treatment," Hiram C. Polk Jr., Carl A. Moyer Visiting Professor of Surgery, WU School of Medicine, and prof. and chairman, Dept. of Surgery, U. of Louisville School of Medicine, Kentucky. Clopton Aud., 4950 Children's Place.

Saturday, March 13

9 a.m. Dept. of Surgery lecture, "Immunologic Restoration of the Trauma Victim — Laboratory vs. Clinical Reality," Hiram C. Polk Jr., Carl A. Moyer Visiting Professor of Surgery, WU School of Medicine, and prof. and chairman, Dept. of Surgery, U. of Louisville School of Medicine, Kentucky. East Pavilion Aud.

Monday, March 15

4 p.m. Dept. of Psychology colloquium, "Neural Regulations of the Heart: A Window to Biobehavioral Development and Health," Steve Porges, prof. of human

development and psychology, U. of Maryland. Room 102 Eads Hall. (Reception following in Room 218.)

4 p.m. Graduate Program in Immunology seminar, "Cellular Interactions in Germinal Centers," Moon H. Nahm, assoc. prof., Dept. of Pathology and Medicine, WU School of Medicine. Third Floor Aud., St. Louis Children's Hospital, 400 S. Kingshighway.

Tuesday, March 16

4 p.m. Dept. of Anthropology colloquium, "The St. Louis Community Asthma Project: The Misguided Concept of Hard to Reach or Resistant Populations in Medical Intervention," Linda K. Sussman, Center for Health Behavior Research, Dept. of Internal Medicine, WU medical school. Room 149 Old McMillan Hall. (Coffee: 3:30 p.m.)

4 p.m. Dept. of Chemistry seminar with Joseph Merola, Virginia Polytechnic Institute and State U., Blacksburg. Room 311 McMillen Laboratory. (Coffee: 3:40 p.m.)

7:30 p.m. Asian Art Society, sponsored by the Committee on East Asian Studies, presents a lecture with Lo Ch'ing-che, Fulbright scholar-in-residence. Steinberg Hall Aud. For more info., call 935-4523.

Wednesday, March 17

8 a.m. Dept. of Obstetrics and Gynecology Grand Rounds, "Narcotic Addiction in Pregnancy," Jaye M. Shyken, instructor, WU School of Medicine. Clopton Aud., 4950 Children's Place.

11 a.m. Assembly Series presents the Foreign Language Week lecture featuring Tatyana Tolstaya, author of *Sleepwalker in a Fog*. Graham Chapel. For more info., call 935-5285.

4 p.m. Dept. of Biochemistry and Molecular Biophysics seminar, "Structure and Function of Nitrogenase," Douglas C. Rees, Dept. of Chemistry and Chemical Engineering, California Institute of Technology. Cori Aud., 660 S. Euclid Ave.

4 p.m. Dept. of Chemistry seminar, "Minor Interactions With Major Consequences in Chemical Reactions," Kev Salikhov, Kazan Physical-Technical Institute of the Russian Academy of Sciences. Room 311 McMillen Laboratory. (Coffee: 3:40 p.m.)

4 p.m. Dept. of Physics presents the Eugene Feenberg Memorial Lecture, "Some New and Simpler No-Hidden-Variable Theorems," N. David Mermin, Horace White Professor in physics, Cornell U. Room 201 Crow Hall.

4 p.m. Joint Center for East Asian Studies colloquium, "Is Japan's Trade Regime Different?" Gary Saxonhouse, prof. of economics and director of Committee on Comparative and Historical Research on Market Economics, U. of Michigan. Room 30 January Hall. For more info., call 935-4448.

8 p.m. Dept. of English Writer's Colloquium with Pamela White Hadas, Visiting Hurst Professor. Hurst Lounge, Room 201 Duncker Hall. For more info., call 935-5190.

Thursday, March 18

Noon Dept. of Molecular Biology and Pharmacology presents "V-Molten Helix: Rapid Transitions in Protein Helices," Garland R. Marshall, prof., Dept. of Biochemistry and Molecular Biophysics; director, Center for Molecular Design, WU School of Medicine. The Philip Needleman Library, Room 3907 South Bldg.

4:30 p.m. Dept. of Mathematics colloquium with Dick Canary, prof., U of Michigan. Room 200 Cupples I Hall. (Tea: 4 p.m., Room 200.)

7 p.m. Lecture by jazz artist Lester Bowie. The lecture is part of WU's Black Heartland III series and is sponsored by the African and Afro-American Studies Program and the Missouri Historical Society. History Museum, Forest Park. For more info., call 361-9265.

Friday, March 19

1 p.m. Solid-state Engineering and Applied Physics seminar, "Theory of Planar NxN

Optical Couplers Based Upon Fourier Optics," C.W. Phelps, graduate student, WU Dept. of Electrical Engineering. Room 305 Bryan Hall.

4 p.m. Assembly Series, Committee on Comparative Literature, Dept. of English, Dept. of Russian and European Studies Program present a lecture, "Erich Auerbach: The Last European," Michael Holquist, prof. of comparative and Slavic literatures and chair, Council of Russian and East European Studies, Yale U. Women's Bldg. Lounge.

4 p.m. Dept. of Music lecture, "Tonal Grouping: An Addendum to Lerdahl and Jackendoff's Generative Theory of Tonal Music," Mauro Botelho, Dept. of Music, Davidson College, North Carolina. Room 8 Blewett Hall Annex.

4 p.m. Microbial Pathogenesis Seminar Series presents "The Pheromone-directed Mating System of the Enterococcus," Don Crewell, Dept. of Biology and Materials Sciences and Dept. of Microbiology and Immunology, U. of Michigan, Ann Arbor. Room 775 McDonnell Sciences Bldg.

Saturday, March 20

1:30-5 p.m. African and Afro-American Studies, International Writers Center and American Culture Studies Institute present a symposium featuring African-American poets Thylia Moss, Elizabeth Alexander, Cornelius Robert Eady and Kenneth McClane. The symposium is part of the Black Heartland III series. Women's Bldg. Lounge. For more info., call 935-5216.



Music

Friday, March 12

8 p.m. Dept. of Music presents the St. Louis premiere of jazz vocalist Lauren Wilson, with The Kim Portnoy Trio, "In an Evening of Vintage Jazz, Blues, Ballads and Swing," Graham Chapel.

Sunday, March 14

3 p.m. Dept. of Music presents a piano recital with John Davis. Graham Chapel.

Tuesday, March 16

8 p.m. Dept. of Music presents the University of Central Oklahoma Concert Chorale directed by Lon Dehnert. Graham Chapel.

Friday, March 19

8 p.m. Student Union and Jazz St. Louis present a Black Heartland III jazz concert by The Leaders. Graham Chapel. For cost and info., call 935-5216.

Saturday, March 20

2 p.m. Dept. of Music, WU Gallery of Art and New Music Circle present a demonstration/recital by pianist Jo Boatright. Steinberg Hall Aud.



Performances

Friday, March 19

8 p.m. Edison Theatre "OVATIONS!" Series presents the Doug Elkins Dance Company. (Also March 20, same time.) Edison Theatre. Cost: \$20 for the general public; \$15 for senior citizens and WU faculty and staff; and \$10 for students. For more info. or reservations, call 935-6543.



Miscellany

Friday, March 12

John M. Olin School of Business and The Institute of Management Sciences (TIMS) present the "Marketing Science Conference." Through March 14. Event is designed to spur discussion of emerging issues in applied marketing and to identify areas for further research by both academics and industry practitioners. Conference will feature nearly 270 presentations on various topics. To register, contact TIMS at (401) 274-2525. Registration fee for non-members is \$450.

Saturday, March 13

9 a.m. The Fine Arts Institute presents a workshop, "Mindmapping for Creativity," Nancy Margulies, author of *Mapping Inner Space*. Room 104 Bixby Hall. Cost: \$30 in advance. For more info. and registration, call 935-4643.

Foreign Language Week calendar

All Foreign Language Week events are free and open to the public.

March 15

11 a.m.-2 p.m. Persian food, music and calligraphy in Mallinckrodt Center.

March 16 (French Day)

9 a.m. Official Welcome with James McLeod, dean, College of Arts and Sciences, Norris Lacy, prof. and chair, Dept. of Romance Languages and Literatures, and Stamos Metzidakis, assoc. prof., Dept. of Romance Languages and Literatures. Graham Chapel.

9:30 a.m. Six options:

Lectures: "Actualités: What's Happening in France?" (in English), Emily Guignon, lecturer in French. Lambert Lounge, Rooms 303 and 304 Mallinckrodt Center; "Women Writers/Femmes écrivains: Interviews" (in English/French), Elyane Dezon-Jones, assoc. prof. of French. Meyer Language Lab, Room 310 S. Ridgley Hall; "War and Religion in Medieval France" (in English), David King, graduate student. Hurst Lounge, Room 201 Duncker Hall; "Learning French in College" (in English), Henry Rozier, graduate student. Women's Bldg. Lounge; "Impressionism" (in English), Jennifer Morris, graduate student. Room 219 S. Ridgley Hall; "Comment faire écrire les étudiants" (in French), Martha Aponte, lecturer in French. Room 100 Mallinckrodt Center.

10:20 a.m. Six options:

Lectures: "Popular French Speech" (in French/English), Mark Burde and Nancy Durbin, graduate students. Lambert Lounge, Rooms 303 and 304 Mallinckrodt Center; "A Taste of France" (in English), Tonia Tinsley and Lisa Dechelette, graduate students. A maximum of 40 students will be admitted. Women's Bldg. Lounge; "Europe 1993: An Update" (in English), Lynne Breakstone, senior lecturer in French. Room 110 Ridgley; "Conversational Interaction in French" (in French/English), Susan Rava, senior lecturer in French, and Claire Hassett, graduate student. Meyer Language Lab, Room 310 Ridgley; "L'Existentialisme" (in French), Michel Rybalka, prof. of French. Room 109 Ridgley.

Video presentation: "Projection of Best Student Videos" (in English), Harriet Stone, assoc. prof. of French. Room 219 S. Ridgley.

11 a.m.-2 p.m. Arabic calligraphy, music at tables in Mallinckrodt Center.

11:15 a.m. Final competitions and announcement of winners, "La Remise des prix." Graham Chapel.

1 p.m. French play, jouée par des étudiants "undergraduate" de Washington University, sous la direction de Myriam Roy and Beth Landers, graduate students. Drama Studio, 208 Mallinckrodt Center. (Also, 7:30 p.m.)

March 17 (Chinese Day)

11 a.m. Assembly Series presents Foreign Language Week lecture featuring Tatyana Tolstaya, author of *Sleepwalker in a Fog*. Graham Chapel.

11 a.m.-2 p.m. Chinese video, food, calligraphy, computer demonstration at tables in Mallinckrodt Center.

2 p.m. Informal discussion with Tatyana Tolstaya. Room 220 Busch Hall.

March 18

12:30-1:30 p.m. Asian and Near Eastern Languages and Literatures Booksale. Books in foreign languages and English available, information on language programs. Mallinckrodt Center (lobby).

7 p.m. Japanese Film, "Rashomon" (with English subtitles). Room 219 S. Ridgley.

March 19 (Spanish Day)

9 a.m. Official welcome with James McLeod, dean, College of Arts and Sciences, and Norris Lacy, prof. and chair, Dept. of Romance Languages and Literatures. Graham Chapel.

9:30 a.m. Eight options:

Lectures: "For the Big of Mouth: Talk Your Way to Better Spanish Pronunciation" (for beginners), Marc Schneider,

undergraduate student in Spanish. Hurst Lounge, Room 201 Duncker Hall; "Word Games. Use Your Knowledge in Friendly Competition" (intermediate level), Ana Luisa Gil Adalid, graduate student. Room 109 Ridgley; "Rivera: un pintor mexicano" (in Spanish, for advanced students), Elzbieta Sklodowska, assoc. prof. of Spanish. Room 219 S. Ridgley Hall.

Art/Writing contest: Exposition of entries and prizewinners, with Michael Mudrovic, asst. prof. of Spanish, and Laura Demaria, graduate student. Room 110 Ridgley Hall.

Dance: "Para ballar la Bamba se necesita ... learn the real way to dance it" (in Spanish/English), Virginia Muzquiz and Lola Gimeno, graduate students. Umrath Hall Aud.

Informal discussion in Spanish: "El pais Vasco" (for advanced students), Manuel Hierro, graduate student in Spanish. Meyer Language Lab, Room 310 Ridgley Hall.

Sampler: "The Taste of Argentina." Food, drink and music prepared by graduate students Virginia Brax, Angel Tuninetti, Adriana Culasso and Martha Caeiro. Women's Bldg. Lounge.

Teacher forum: "Using Computers to Teach Spanish," Gail Swick, lecturer in Spanish. Faculty Computing Center, Prince Hall basement.

10:20 a.m. Eight options:

Lectures: "What is Feminism? Why Does it Matter?" Mané Lagos, assoc. prof. of Spanish. Interpretation of a poem by Gabriela Mistral (in English). Room 219 S. Ridgley Hall; "The Sounds of the Caribbean: Afro-Hispanic Beat in Poetry and Music," graduate students Emmanuel Harris and Daniel Mosquera. Women's Bldg. Lounge.

Coffee: (For teachers only). Admussen Lounge, Room 311 Ridgley Hall.

Dance: Merengue! Learn Latin dance with Nancy Schnurr, lecturer in Spanish. Umrath Hall Aud.

Discussion: "Where in the World Will You Be in a Few Years?" Students talk about their studies abroad. This is for all levels. Hurst Lounge, Room 201 Duncker Hall.

"Jeopardy" in Spanish: With Maria Spitz, graduate student. For the intermediate level. Room 109 Ridgley Hall.

Movie: "Skyline," a comedy in Spanish with no subtitles (for advanced students). Meyer Language Lab, Room 310 Ridgley.

Skit/rap contest: Student performances to be judged by Akiko Tsuchiya, asst. prof. of Spanish, and John Garganigo, prof. of romance languages. Lambert Lounge, Rooms 303 and 304 Mallinckrodt Center.

11 a.m. Two options:

Cartoon: "Muzzy" (for beginners). Room 219 S. Ridgley Hall.

Performance: Spanish traditional songs with guitarist Karina Clark. Women's Bldg. Lounge.

11 a.m.-2 p.m. Turkish music and refreshments. Mallinckrodt Center.

2 p.m. Israeli film, "My Michael" (with English subtitles). Room 114A Busch Hall.

7 p.m. Italian film, "Bellissima" (with English subtitles). Room 219 S. Ridgley Hall.

Tolstaya — from page 1

and Common Knowledge, which is published by Oxford University Press. She is a contributing editor of The New Republic. Her articles have appeared in newspapers in Europe and the United States.

Since the fall of 1988, in addition to lecturing widely in the United States, Tolstaya has spent time as a writer-in residence at the University of Richmond in Virginia and as a visiting professor at the University of Texas at Austin, among others.

After graduating from Leningrad State University with a degree in philology in 1974, Tolstaya was an editor for Nauka, a publishing house in Moscow, before making her literary debut in 1983 with her first short story.

The lecture is co-sponsored by the Assembly Series, International Writers Center, Russian Club, Department of Russian and Student Union. For more information call 935-4620.

Sports

Men's Basketball

Last Week: Washington 96, Chicago 60

This Week: Season Complete

Final Record: 15-10, 10-4 in UAA (Second Place)

Washington, which recorded its ninth consecutive winning season, also won its last eight games at home, including all seven University Athletic Association (UAA) contests. At the Field House, the Bears averaged nearly 96 points per game in the UAA and won by an average of 22 points. Before winning its last three UAA games on the road, however, Washington dropped its first four conference games away from home. New York University captured the league championship with a 12-2 UAA mark.

Senior forward Charlie Borsheim, La Crosse, Wis., capped the season with 17 points and seven rebounds in the season-ending win over Chicago. Borsheim, finishing his career as Washington's third all-time leading scorer with 1,439 points, averaged 21.3 points per game this season, the second-highest scoring average in school history. The leading candidate for UAA Player of the Year honors, Borsheim led the league in scoring (22.2 ppg) and field goal percentage (.608).

Senior forward Lance Shoulders, Russell, Ky., this year's recipient of the Robert L. Pearce "110 Percent" Award, closed his career with 720 points.

Women's Basketball

Last Week: Washington 74, Chicago 53

This Week: NCAA Division III Championship — First Round Central Region Game vs. Wartburg (Iowa) College, 7:30 p.m. Sat., March 6, Field House

Current Record: 22-3, 12-2 in UAA (Champion)

Washington tuned up for its fifth NCAA Division III tournament appearance in six years by blasting Chicago. The Bears, who had already clinched the UAA title and the automatic NCAA bid that goes along with that prize, received a game-high 17 points from senior guard Carolyn Royce, Clayton, Mo.

The Bears, the top-seeded team in the Central Region, now turn their attention toward Saturday night's NCAA tournament game against Wartburg College. The Lady Knights are 21-4 this season and enter the tourney ranked fourth in the Central Region.

Should the Bears win Saturday's first-round contest, they would advance to the "Sweet 16" and participate in a four-team sectional next weekend. The winners of the four separate sectionals then meet the weekend of March 19-20 for the Final Four.

Washington enters the postseason riding a six-game winning streak and has won all 11 of its home games this season.

Independent review completed of psychiatry department's federal research funding

The accounting firm of Coopers & Lybrand has completed its external review of the use of research funds in the Department of Psychiatry of the School of Medicine. The report has been forwarded to the National Institutes of Health (NIH). Following is a letter from William A. Peck, M.D., summarizing the report and its recommendations. This letter was sent to faculty and staff on both campuses. Peck is executive vice chancellor for medical affairs and dean of the School of Medicine.

To: School of Medicine Faculty and Staff

On December 16, I wrote to tell you that concerns had been raised about the use of federal funds in the Department of Psychiatry. As you will recall, after a preliminary inquiry some questions remained unresolved, so I appointed a Special Committee to pursue the matter more thoroughly. Working under advice from the University's attorneys, the Special Committee asked the independent accounting firm of Coopers & Lybrand to conduct a detailed review. At the same time, NIH was informed about the issue and the steps that were being taken.

The Coopers & Lybrand review, which is now complete, included the recertification of PARs (Personnel Activity Reports) by Department faculty and staff. PARs record the percentage of time and effort spent by the faculty and staff on various functions such as research, instruction and Department administration.

As a result of Coopers & Lybrand's findings regarding certain grants administration practices, Washington University will voluntarily reimburse the federal government \$421,624 for charges made to grants during the last two fiscal years. This figure represents approximately 2 percent of the direct and indirect research funds awarded to the Department during the review period. As stewards of federal funds it is our obligation to avoid and correct even the appearance of practices that could be questioned. Thus, reimbursing these funds and revising these practices are the right things to do.

Coopers & Lybrand reported the following findings:

- Faculty salaries in a small number of cases were assigned to grants by Departmental administration without documented authorization from the principal investigator. Therefore, the accuracy of the assignment of certain salaries to grants could not be documented. Clearly it is important that the principal investigator approve in advance and in writing salaries assigned to his or her grant.
- For some members of the administrative staff, the assignment of time and effort to grants should have been more reasonable. One can imagine how confusion might arise because sometimes it can be difficult to determine into which category a specific task might belong. For example, effort spent by a secretary preparing a grant application should not be charged to a grant, but effort spent on a research progress report can be so charged. In this case, staff salaries were assigned to grants on the basis of an allocation formula developed in the Department. Coopers & Lybrand calculated a new formula that reduced the share of staff salaries allocable to research.
- The total amount budgeted for office, lab and other research expenses was allocated to the grant in full at the beginning of the grant period — a practice that led to an excess in some of the accounts. As a result, these costs now will be allocated to grants as they are incurred. This allocation practice will be discontinued.

Coopers & Lybrand made two other recommendations which relate to the administration of grants: in view of the proposed revisions to federal regulations — which will mandate a more uniform approach to cost-allocation — it is recommended that grant-related costs be reviewed for consistency throughout the institution; and secondly, it has been recommended that proposed budgets on grant applications reflect as accurately as possible the salary levels that are expected to be in effect when the grant is funded. I know the University is going to see to the implementation of both these recommendations.

In addition, the review process indicated that some faculty and staff misunderstood the PAR certification process. More explanation and education is needed, and will be provided, regarding the PAR forms. Enhanced training sessions have already been arranged and will be announced soon. Faculty and staff are encouraged to take advantage of these services.

The reimbursement, which we have already sent to NIH, is the sum of \$225,828 for PAR-based allocation changes, \$60,359 in unspent lab, office and research allocations, and \$135,437 for staff salary allocation adjustments.

Much can be learned from this experience. Given our responsibilities for the appropriate use of federal funds, it is absolutely necessary that we have grants administration procedures of the highest quality. Before the issues addressed above surfaced, Coopers & Lybrand was in the process of a general university-wide review of grants administration practices. Such reviews are now required by the federal government every year. Inasmuch as that review is still open, it seems appropriate to anticipate that Coopers & Lybrand will expand its review to other departments — indeed, the University encouraged them to do so. We are compelled to provide assurances that the practices identified in the Department of Psychiatry are not widespread.

When the review process began, we had three priorities: to continue to be deserving of the public trust as recipients of federal funds; to treat everyone involved in a fair manner; and to support fully the faculty and staff of the Department of Psychiatry, whose good works have contributed immeasurably to the understanding of mental and emotional diseases and to the high regard enjoyed by the School of Medicine in particular and Washington University in general. To maintain all three priorities was as arduous a task as I have ever encountered, but I know the process must have been even harder on the people of the Department.

All of us owe a debt of gratitude to the faculty and staff of the Department of Psychiatry for their effort, patience, understanding and cooperation. Their assistance in this process has been invaluable. I hope the members of the Department can continue to move forward, focusing upon the teaching, research and clinical pursuits that rightly should consume their attention and energies. Join me in lending them full support. While it is true we must handle our administrative affairs in a way that is above reproach, in the long run, nothing so distinguishes this institution as does the work of its faculty.

Dancer Doug Elkins and company bring 'smartly flamboyant' style to Edison Theatre

The Doug Elkins Dance Company, described by The Village Voice as "stylistically devious, boyishly crude, and smartly flamboyant," will perform two nights of witty and provocative works at 8 p.m. March 19 and 20 in Edison Theatre.

This event, which is co-sponsored by Dance St. Louis, is part of Edison Theatre's "OVATIONS!" series.

Elkins' "downtown" style takes inspiration from every street corner and every corner of the world. The eclectic choreographer is known for expertly weaving break dancing, flamenco, mime, martial arts and everyday movements into his mischievous, acrobatic productions.

"Elkins is one of the most inventive creators of movement around," wrote the Minneapolis Star Tribune, "and his bag of dance moves is vast. He sucks up styles like a choreographic Hoover, spins them around, tosses them out in strangely unsettling, but compelling juxtapositions and creates fascinating, wildly kinetic, sometimes alarmingly dangerous new forms."

Combined with this patchwork of dance styles is a wide variety of musical styles. In one piece, Elkins uses music from both David Byrne of Talking Heads and Islamic chants. Handel and Mozart are used next to Lenny Bruce and George Carlin tapes. In "Danforth and Multiply," a work that takes

on notions of religion and politics, Elkins uses speeches by former presidents Ronald Reagan and George Bush.

Elkins also undercuts all notions of gender: Women lift men; men dance tenderly with men; women take the role of aggressors; and men exit with men, women with women.

Founded in 1987, the nine-member company already has performed at Lincoln Center in New York, the American Dance Festival in Durham, N.C., and the Riverside Theater in London, as well as on the Boardwalk at Coney Island. The first international tour took place last season.

The Minneapolis Star Tribune said of the company, "It's hard to remember a dance concert where an audience laughed so hard at so many different levels."

Elkins has received commissions from the National Endowment for the Arts, the National Performance Network, the Jerome Foundation, the Dance Magazine Foundation, Metropolitan Life/American Dance Festival, the Hartford Foundation and Arts International.

Tickets are \$20 for the general public; \$15 for senior citizens and Washington University faculty and staff; and \$10 for students. Tickets are available at the Edison Box Office or through Metrotix, 534-1111.

For more information, call 935-6543.

Jazz band performs during Black Heartland

St. Louis jazz fans will have a rare opportunity to see the Leaders when the band appears at 8 p.m. March 19 in Graham Chapel. The Leaders will perform as part of the Black Heartland Conference at Washington University.

Black Heartland is a project formed by Gerald Early, Ph.D., professor of English and chair of the African and Afro-American Studies Program. He formed the project to promote the study of the African-American experience in the Midwest. All but one of the Leaders hail from the Midwest and all are African-American.

Band members are trumpeter Lester Bowie, percussionist Don Moye, alto saxophonist Arthur Blythe, tenor saxophonist Chico Freeman, bassist Cecil McBee and pianist Kirk Lightsey.

Bowie will make a second appearance as he talks about "Connecting Your Community" at 7 p.m. March 18 at the History Museum in the Jefferson Memorial Building at Forest Park. The lecture is free and open to the public.

The concert is co-sponsored by the African and Afro-American Studies Program, Jazz St. Louis and All That Jazz. Financial Assistance for this project has been provided by the Missouri Arts Council, a state agency, and the Regional Arts Commission.

Tickets are available in advance at Euclid Records, Left Bank Books, Paul's Books, Webster Records and Mallinckrodt Center.

American Indian storytelling featured — from page 1

A poetry reading featuring original American Indian poetry by members of the University community is scheduled for 4:30 to 5:30 p.m. Presenting their work will be Carter Revard, Ph.D., professor of English and an Osage; Tome Roubideaux, an Assiniboine Sioux; and James W. McIntosh, a Cherokee. Both are graduate students in social work.

"Cherokee Tribal History and Tribal Courts" will be the subject of a speech by the Hon. Dwight Birdwell, a justice on the Supreme Court of the Cherokee Nation, scheduled for 6 to 7 p.m. A reception will follow. The event is co-sponsored by the Native American Law Student Association.

March 24 — "Health and Mental Health Issues" will be the topic of a panel discussion from noon to 2:30 p.m. Panel leaders will be John Williams, an Osage and the facility unit director at the Indian Health Center in Pawhuska, Okla., and Rose Mary Shaw, an Osage and a graduate student in social work. They will discuss health and mental health problems in the American Indian population.

March 25 — A discussion of economic development will be held 6 to 8 p.m. in the May Auditorium, Simon Hall, at the John M. Olin School of Business.

Ticket prices are \$14 for the general public, \$12 for Washington University faculty and staff, and \$8 for Washington University students. The price is \$15 at the door for everyone.

For more information, call 935-5216.

Psychologist discusses urban drug problem

William A. Harvey, founder and executive director of St. Louis' Narcotics Service Council Inc. (NASCO), will speak about preventive measures needed to combat the urban drug problem at 1:10 p.m. March 18 in Brown Hall Lounge at the George Warren Brown School of Social Work. His talk is titled "Drug Abuse and The Urban Scene: A Time for Prevention Initiatives."

Harvey founded NASCO in 1969 to provide detoxification, rehabilitation and other comprehensive services to the city's drug abusers. Harvey, a clinical psychologist, has been involved in drug prevention on a local and national level.

He is project director for St. Louis Juvenile Court's intervention and treatment program for teenagers and Tri-A Prevention/Intervention Project, which helps students expelled from the St. Louis Public Schools for drug or other behavioral problems.

Harvey's talk is part of the social work school's spring lecture series.

Geoffrey Standingbear, an Osage/Oglala Sioux, will discuss trends in economic development in Indian Nations and the advantages business developers gain when investing in Indian Nations. Standingbear, an attorney, is the assistant principal chief of the Osage Nation. A reception will follow the discussion. The event is co-sponsored by the Native American Law Student Association.

March 26 — "Tribal Sovereignty" is the topic of a talk scheduled for noon to 1 p.m. in Room 325 Mudd Hall. Standingbear will discuss legal issues stemming from tribal sovereignty in child welfare cases, tribal membership and other related issues.

"Osage Culture" will be presented from 5 to 6:30 p.m. by Carl and Billie Ponca. Carl is curator of the Osage Tribal Museum in Pawhuska, Okla. He will discuss the history of the Osage tribe in Missouri in the 1800s. Billie will present a history of the Osage women. The talk will be accompanied by a video presentation and examples of dance and dress.

"American Indian Storytelling in the Kiowa Tradition" is scheduled for 7 to 8:30 p.m. by Jake Chanate, a Kiowa storyteller. He will tell traditional stories of the Kiowa people, including children's tales and life lessons for adults.

For The Record

For The Record contains news about a wide variety of faculty, student and staff scholarly and professional activities.

Of note

The American Professional Society on the Abuse of Children (APSAC) presented its 1993 Outstanding Service Award to **David L. Corwin, M.D.**, assistant professor of child psychiatry. Corwin was honored for his work in the child abuse field and for his role in APSAC's founding in 1986. He chaired the organizing committee that formed the society. Corwin received the award during APSAC's general meeting held in San Diego, Calif. ...

The Wesley Foundation of Greater St. Louis' board of directors presented its first academic scholarship to **William H. Gerhardt**, a junior in the John M. Olin School of Business. Gerhardt received the \$100 scholarship in honor of his participation in home and campus ministry activities. ...

During the 18th annual meeting of the National Hearing Conservation Association held in Albuquerque, N.M., **William W. Clark, Ph.D.**, associate professor of

physiological acoustics and director of the Communication Sciences Program at the Central Institute for the Deaf, and **Steve Kraushaar**, broadcast service director, received the group's 1993 Media Award for a video news story they produced on hearing loss among the young. They received certificates acknowledging their video story's contribution to increasing public awareness on the topic. ...

Karen L. O'Malley, Ph.D., associate professor of anatomy and neurobiology, received a \$25,000 grant from the Alzheimer's Disease and Related Disorders Association Inc. for a research project on "CNS Gene Therapy via the Targeted Expression of Neurotrophic Factors." ...

George D. Rose, Ph.D., professor of biochemistry and molecular biophysics, received a \$241,751 grant from the National Institute of General Medical Sciences for a research project titled "Self-Recognition in Globular Proteins." ...

Kelvin A. Yamada, M.D., assistant professor of neurology and neurological surgery and assistant professor of

pediatrics, received a \$20,000 grant from the Child Neurology Society for a research project on "The Physiological and Pathophysiological Importance of Glutamate Receptor Desensitization in Mammalian CNS Neurons."

On Assignment

Joseph J.H. Ackerman, Ph.D., professor and chair of chemistry, served on a National Institutes of Health special study section site visit team that reviewed the Pittsburgh Nuclear Magnetic Resonance Center for Biomedical Research. He also chaired a National Science Foundation site visit team that reviewed the University of Illinois at Urbana-Champaign's Center for Magnetic Resonance Technology for Basic Biological Research. ...

Duke Leahey, director of industrial contracts and licensing, was named president of the Association of University Technology Managers at the group's annual meeting in Dallas, Texas. The association's members represent the top 250 technology transfer offices at research institutions in the United States and Canada.

Speaking of

Julius L. Goldstein, Ph.D., research professor of electrical engineering, and **Gerald R. Popelka, Ph.D.**, professor of audiology, both in the Department of Speech and Hearing at the Central Institute for the Deaf, made presentations during the Association for Research in Otolaryngology meeting held in St. Petersburg, Fla. Goldstein spoke on "Relating the MBPNL Model of Non-linear Cochlear Function to Classical Cochlear Models Based on Structure." Popelka gave a slide presentation along with a paper titled "Growth of Distortion Product Otoacoustic Emissions in Humans." ...

During the American Association of School Administrators' 125th annual convention held in Orlando, Fla., **Marye N. Leonard**, manager of compensation at the medical school, presented a lecture on "Say NO! to Sexual Harassment."

Her talk included types, levels and examples of sexual harassment as well as methods of prevention and resolution. ...

Karen L. Tokarz, LL.M., professor of law and director of clinical education, participated in a debate titled "The Missouri Non-partisan Court Plan: For or Against Minorities?" at the St. Louis University School of Law. ...

During the Mid-America Theatre Conference to be held March 11-13 in Kansas City, Mo., **William Van Watson, Ph.D.**, lecturer in performing arts, is scheduled to present a paper titled "Pasolini's 'Beast of Style': Displaced Autobiography in a Czech Mirror."

To press

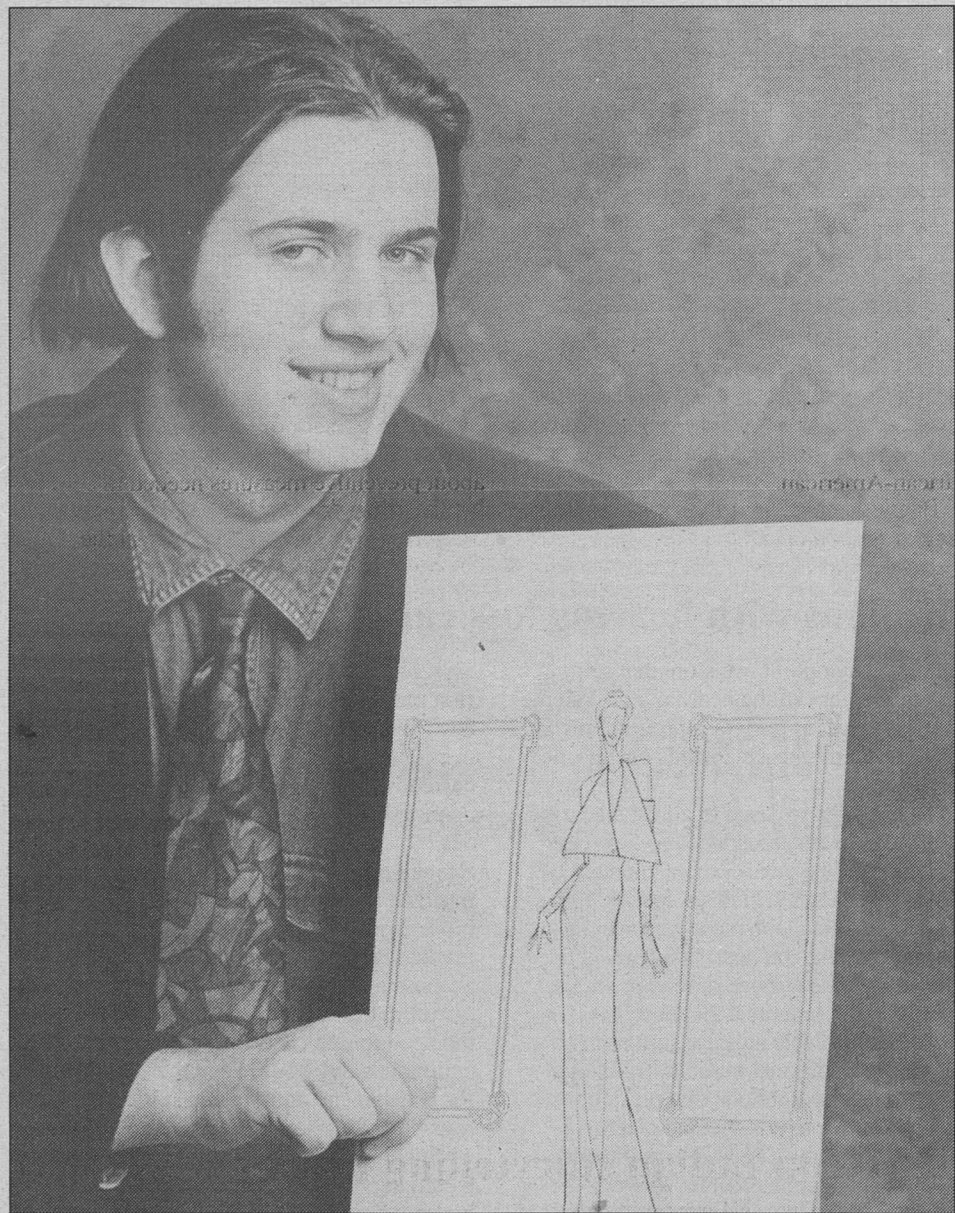
Gerald Early, Ph.D., chair of the African and Afro-American Studies Program and professor of English, edited a book titled *Lure and Loathing: Essays on Race, Identity, and the Ambivalence of Assimilation*. Early also wrote the introduction to the book, which is published by Allen Lane/The Penguin Press. ...

Gerald N. Izenberg, Ph.D., professor of history, published an article on "Text, Context and Psychology in Intellectual History" in a book titled *Developments in Modern Historiography* edited by Henry Kozicki. ...

The revised edition of a book by **Clifford M. Will, Ph.D.**, professor and chair of physics, has been published by Cambridge University Press. The book is titled *Theory and Experiment in Gravitational Physics*. Additionally, Basic Books is scheduled to publish the revised edition of Will's book titled *Was Einstein Right?* in April. The revised version will appear with an added chapter on the search for a fifth force of nature.

Guidelines for submitting copy:

Send your full name, complete title, department, phone number, and highest-earned degree, along with a typed description of your noteworthy activity to For The Record, c/o Carolyn Sanford, Campus Box 1070. Items must not exceed 75 words. For information, call Carolyn Sanford at 935-5293.



Junior Paul A. Dillinger displays a sketch of his evening dress design. The design, along with his cocktail and daytime dress sketches, was selected as the winning St. Louis entry in the Lord & Taylor design competition.

Student wins Lord & Taylor scholarship

Paul A. Dillinger, a junior in the School of Fine Arts fashion design program, has received a \$2,500 scholarship from Lord & Taylor.

The scholarship is awarded annually to a fashion design student studying in each region with a Lord & Taylor store. Those regions include the Boston, Chicago, New York, St. Louis and Washington, D.C., areas. Every year Lord & Taylor chooses one school from each region to participate in the competition. Bill Kerrigan, now a senior, received the honor in 1992 — marking the first time the scholarship was presented to a student from the St. Louis area.

Dillinger's designs were submitted as sketches and fabric swatches in the competition. His work will be on display at Lord & Taylor's New York store and later will be displayed at the store in the St. Louis Galleria.

Each student in the competition entered a daytime, a cocktail and an evening dress

design. Dillinger described the color of his three designs as "neutral earth tones." His daytime dress design was made of raw silk with a plaid wool lapel. His cocktail dress was composed of quilted leather with tattered flannel sleeves, while his evening dress was made of silk charmeuse with velvet lapels.

Dillinger, a native of Washington state, is designing costumes for the Department of Music's opera program March 26 and 27 at Sheldon Hall. The two operas that will be performed are "Fables" by Ned Rorem and "What Price Confidence" by Ernst Krenek. Dillinger also designs and creates costumes for University productions as an employee in the Performing Arts Department.

Last summer Dillinger won the Wichita State University Theatre Design Competition for his costume designs for Molière's play "The Misanthrope." Those designs were part of an exhibit that toured nationwide.

Leslie Strohm named acting general counsel

Leslie Chambers Strohm, J.D., deputy general counsel, has been named acting general counsel, according to Chancellor William H. Danforth.

The former general counsel, Peter H. Ruger, J.D., left Washington University in December to join the Peper, Martin, Jensen, Maichel and Hetlage law firm in downtown St. Louis. He had worked at Washington for 18 years.

Strohm has worked in the Office of the General Counsel since 1984, serving as assistant and associate general counsel before being named deputy general counsel in 1992. Among her current duties, Strohm advises the chancellor and the vice chancellors on a variety of legal issues facing the University's Hilltop and Medical School campuses.

During her career at Washington, Strohm has become a national authority on the law of AIDS and the HIV-infected



Leslie Chambers Strohm

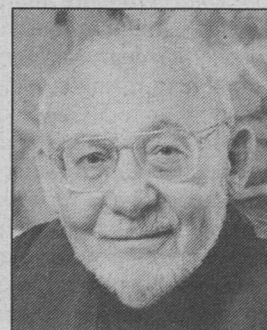
health care worker. She has published and spoken extensively in this field. For the past five years, she also has served as co-chair of the National Association of College and University Attorney's Health Sciences Section.

An Indiana native, Strohm graduated summa cum laude in 1978 from DePauw University in Greencastle, Ind., where she received a bachelor's degree in mathematics. In 1981 she received a law degree, magna cum laude, from the University of Michigan Law School.

Campus Authors

The following is a recent release available at the Campus Bookstore in Mallinckrodt Center on the Hilltop Campus or at the Washington University Medical Bookstore in the Olin Residence Hall. For more information, call 935-5500 (Hilltop Campus) or 362-3240 (Medical School).

Van Gogh's Room at Arles is the title of a new book by **Stanley Elkin, Ph.D.**, Merle Kling Professor of Modern Letters. The work is a collection of three novellas: a wheelchair-bound professor is abandoned by his wife, leaving him to preside — helplessly — over a party for his students that is careening out of control; the spurned fiancée of the Prince of England pens her furious memoirs for public consumption in a series of outrageous tabloid exposés; and in the title work, a man awarded a foundation grant searches for his scholarly identity in a land of academic giants. (Hyperion, New York)



Opportunities & personnel news

Hilltop Campus

The following is a list of positions available on the Hilltop Campus. Information regarding these and other positions may be obtained in the Office of Human Resources, Room 126 North Brookings Hall, or by calling 935-5990.

Receptionist/Secretary

930142. *Career Center*. Requirements: High school graduate. This position is the focal point of the Career Center, thus, a positive, cheerful and courteous disposition is required. Candidate must be a "people" person, team player, flexible, and detail-oriented; able to set priorities and work on numerous tasks with constant interruption; some college education and computer experience required; type 35 wpm with accuracy; applicant should possess a working knowledge of University procedures plus general office experience. Clerical tests and three letters of recommendation required.

Accounting Clerk

930151. *Biology*. Requirements: High school graduate, certificate or associate's degree preferred; typing with accuracy. This position requires basic understanding of accounting and budgeting; strong bookkeeping, clerical and verbal skills; demonstrated abilities in developing and using Excel spreadsheets on a Macintosh computer and inputting and using other financial systems; knowledge of FIS and grants budgeting strongly preferred; ability to handle simultaneous, multitask assignments, work under deadline pressures; and effectively support and interact with a diverse group; must demonstrate sound independent judgment, initiative, and the ability to work with minimal supervision; strong organizational skills. Clerical tests and three letters of recommendation required.

Secretary - Lewis Center

930152. *School of Fine Arts*. Requirements: High school graduate, some college preferred; typing 50 wpm with accuracy; accurate word processing; familiarity with WordPerfect 5.1; excellent language and grammar skills; knowledge of office machines, including personal computers; good communication skills; excellent filing and recordkeeping; ability to work well with students, faculty and staff; dependability and flexibility a must; willingness to work under pressure; ability to handle details and to prioritize tasks; minimum one year prior office experience; familiarity with University procedures preferred. Clerical tests and three letters of recommendation required.

Department Secretary

930154. *Alumni and Development Programs*. Requirements: High school graduate, bachelor's degree preferred; individual should have a strong command of the English language and must be able to deal with multiple priorities with minimum supervision. Overtime, including nights, weekends, etc. is essential, as is a good personality and good grooming. Clerical tests and three letters of recommendation required.

Manager for Mail Operations

930155. *Undergraduate Admission*. Requirements: Minimum four years of college, bachelor's degree preferred; physically capable of lifting/transporting heavy boxes (up to 50 lbs.); knowledge of U.S. postal regulations preferred; time management and ability to prioritize; attention to detail and recordkeeping skills a must; ability to be flexible and manage changing priorities; ability to delegate; supervisory skills. Application and three letters of recommendation required.

Application Processor I

930156. *Undergraduate Admission*. Requirements: High school graduate; knowledge of University procedures, experience with CRT helpful; typing 30 wpm with accuracy and data entry essential; ability to quickly and efficiently organize large quantities of material; close attention to detail; ability to work well under pressure; must be able to work well with the public, students and other staff members; superior attendance record imperative; sense of humor. Clerical tests and three letters of recommendation required.

Director, Sponsored Projects Services

Research Office. Requirement: Bachelor's degree. Supervise and provide services in the area of federal and non-profit research funding to the University. Experience needed in principles of management of public funds by universities, government contracting practices and government regulations affecting research universities. Supervision of personnel to grade 10 required; interact and problem solve with faculty, administrators, agency personnel; monitor and analyze public policy, develop management systems to promote smooth function between different University departments; supervisory and position-specific experience required. Deadline is March 15. Send resume and contact information for three references to: Associate Vice Chancellor for Research, Washington University, Campus Box 8013, 724 S. Euclid Ave., St. Louis, Mo. 63110.

Director

Research Office. Requirements: Master's degree, doctorate preferred. Direct a new program to generate corporate support for medical research; develop a networking capability through personal interaction with medical school faculty and corporate R7D managers. Interact with Research Office staff involved with technology transfer (patents and licensing). Graduate-level training in science or business required; up-to-date technical knowledge of several of the following areas required: biotechnology, pharmacology, medical devices and medical imaging; ability to extrapolate from scientific interest to commercial application required; strong synthetic and analytical skill and presentation abilities needed. Deadline is March 15. Applicants should send a CV and cover letter containing names, titles, addresses and phone numbers of three references to: Dr. Susan E. Cullen, Ph.D., Associate Vice Chancellor for Research, Washington University, Campus Box 8013, 724 S. Euclid Ave., St. Louis, Mo. 63110.

Medical Campus

The following is a partial list of positions available at the School of Medicine. Employees who are interested in submitting a transfer request should contact the Human Resources Department of the medical school at 362-4920 to request an application. External candidates may call 362-7195 for information regarding application procedures or may submit a resume to the Human Resources office located at 4480 Clayton Ave., Campus Box 8002, St. Louis, Mo. 63110. Please note that the medical school does not disclose salary information for vacancies, and the office strongly discourages inquiries to departments other than Human Resources.

Library Assistant II

930550-R. *Medical Library*. Requirements: High school graduate/equivalent, two years college preferred; basic knowledge of library procedures and familiarity with medical terminology; must have the ability to deal with highly educated library patrons politely and efficiently.

Medical Transcriptionist

930552-R. *Psychiatry*. Requirements: High school graduate/equivalent, some business or technical knowledge preferred; experience with WordPerfect; typing 70 wpm; knowledge of medical terminology.

Medical Secretary I

930573-R. *Otolaryngology*. Schedule: Part time, 22.5 hours a week — usually, Tuesday, Wednesday and Thursday, with up to five days as a float. Requirements: High school graduate/equivalent; prior experience in a medical setting dealing with the public; good communication and telephone skills; experience with WordPerfect; typing 60 wpm; knowledge of medical terminology and medical transcription.

Head Nurse

930582-R. *Internal Medicine*. Requirements: Graduate of an accredited nursing school with current Missouri license; two years management experience; excellent I.V. and communication skills; prefer experience in an outpatient environment.

Planning Associate

930584-R. *General Administration*. Requirements: Bachelor's degree; master's degree in health or business administration preferred; minimum of one to two years experience in planning and marketing and/or experience in health care field preferred; knowledge of PC and WordPerfect.

Medical Research Technician

930589-R. *Surgery*. Requirements: Master's degree preferred with one to two years research lab experience with

tissue culture techniques and protein chemistry and purification; knowledge of molecular biology, specifically immunohistology and in-situ hybridization; prefer experience with animal care and surgery.

Medical Research Technician

930591-R. *Radiation Oncology*. Requirements: Bachelor's degree, master's degree preferred with specialized training or experience with protein and/or nucleic acid electrophoretic techniques, methods of cultured cell synchronization and separation techniques including sterile techniques.

Programmer Analyst II

930607-R. *Obstetrics and Gynecology*. Requirements: Bachelor's degree in programming or statistics; three years programming experience with Dbase in a DOS Network environment.

RN Staff Nurse

930613-R. *Medical Health*. Schedule: Part time, 18.7 hours a week — Monday, Tuesday and Friday. Position is for two months with potential for additional weeks and for future per diem placement. Requirements: Associate's degree; current Missouri license with background in outpatient/doctor's office environment; must be flexible; have good blood-drawing skills

Lab Tech Research

930614-R. *Genetics*. Requirements: Two years college; must be thorough, detail-oriented and have the flexibility to adapt to new protocols; good interpersonal skills; must be able to work independently. Will be conducting experiments in human molecular genetics.

Millions with hearing loss can be helped — from page 1

achieved that point, we store that setting in the memory of the hearing aid," Valente says. It is just as easy to reprogram the aid as the patient's hearing needs change, he added.

"Basically, we used to adjust a hearing aid for an average response for average listening. If the environment changed we couldn't change the aid's response; the patient had to adapt. Now we have the ability to make the hearing aid adapt to the environment more so than previous technology," Valente explained.

Programmable aids are similar in design to traditional models. Traditional aids have a microphone that picks up sounds and converts them to electrical signals. An amplifier amplifies the electrical signal, and a receiver converts the amplified electrical signal back to acoustic signals that stimulate the ear. Programmable aids work the same way, except that "we control how the hearing aid amplifies through digital technology," Valente explained.

The aids are available in all three traditional designs: behind-the-ear (BTE) aids, which sit over the outer ear, in-the-ear (ITE) aids, which fill up the entire ear, and in-the-canal (ITC) aids, which fit inconspicuously inside the ear canal. Approximately 12 programmable models are currently available; they make up about 2 to 6 percent of the hearing aid market, Valente estimated. Cost for programmable aids varies from \$970 to \$2125, depending on the model's sophistication. Of the traditional aids, BTEs make up about 15 percent of hearing aids dispensed; ITEs and ITCs together make up about 80 percent of the market.

Valente tested the first programmable aid available as a canal design about a year ago. This advance will open up access to programmable aids because most people prefer the canal design, he

says. He recently finished evaluating the first programmable ITE hearing aid designed to help people with hearing loss due to noise exposure. The only choice currently on the market for this type of hearing loss is a conventional BTE, less desirable because of its size, Valente says. Results from 10 patients were very positive, and the manufacturer is in the process of introducing this aid to the market, he says. Currently, he is testing an aid that can be programmed using a circuit in the aid itself. This eliminates the need for expensive programming equipment and would keep the cost down for patients and audiologists, Valente says.

Such improvements in hearing aid technology may help close the gap between the number of people who use hearing aids and the millions more who should, Valente says. Several factors account for this gap, he explained. For example, physicians may not recommend hearing aids as often as they should, he says. They may assume that a patient who complains of hearing loss but has no trouble hearing during the office visit does not need an aid. Also, many doctors assume incorrectly that aids cannot help sensory neural hearing impairment, often improperly called nerve deafness. In fact, the opposite is true; more than 90 percent of people successfully fitted with hearing aids today have this type of impairment, Valente points out. In addition, seeing the bad experiences of friends or relatives and makes some people wary, though technology has improved dramatically. "I think that's where this technology has a real value," Valente says. "If people are fitted with their hearing aid appropriately, they can have a more positive reaction to hearing aids and then spread that good news."

— Juli Leistner