Oscar Arias Sanchez will give Commencement address

Oscar Arias Sanchez, the 1987 recipient of the Nobel Peace Prize and former president of Costa Rica, will be the speaker at Washington University’s 130th Commencement ceremony on May 17, 1991, Chancellor William H. Danforth announced. "It is an honor for our graduates and the entire Washington University community,” Arias, author of the 1987 Central American peace plan and a former university professor, was presented the Nobel Peace Prize for his outstanding contribution to the possible return of stability and peace to a region long torn by strife and civil war," according to the Norwegian Nobel Committee.

The peace plan was signed in August 1987 by Arias and the presidents of El Salvador, Guatemala, Honduras and Nicaragua. Designed to resolve conflict in the region, the plan calls for regular elections, political and press freedoms, respect for civil rights, peace talks, cease-fires and negotiations to stop guerrilla wars. It also prohibits outside aid to rebel groups. In creating the plan, Arias was motivated by the conviction that Central American peoples must stop killing each other," he said in a February 1990 interview with The Washington Post.

Arias “especially.RJ. Walter, who directs the University's International Affairs Program, says Arias is one of the Nobel Peace Prize winners of the 15 on the major conflicts in the Central American region — the Contra War in Nicaragua,” says Richard J. Walter, Ph.D., professor of history and a specialist on Latin America. Because of the peace plan, he says, the leaders of the region are nearing a consensus that eventually ended the war.

Aimed mainly at Nicaragua, the

Peruvian editor to discuss human rights

"Human Rights and the Press: A View From South America" will be discussed by Peruvian editor Enrique Zeller, who is part of a group of journalists who have investigated the major events of the 1980s. Zeller is also part of a Human Rights Day celebration organized by the University and the United Nations Association of St. Louis. During the event, Peruvian human rights activist and journalist Arroyo Arroyo will be honored by the association.

William F. Wox, editor of the St. Louis Post-Dispatch, and former Senator Thomas F. Eagleton, University Professor of Public Affairs, also will speak during the celebration. Reservations for this event, which is free and open to the public, can be made by calling the U.N. Association at 721-1901.

Zeller is editor of the Peruvian weekly news magazine Caras. Arroyo, a reporter for Caras, is being honored for his role in exposing human rights violations by Peruvian authorities.

Inside MEDICAL RECORD

• The elderly’s most common health problems may stem from having too much or too little calcium.
• Eleven year old is youngest cystic fibrosis patient to receive definitive transplants.
• Review shows ulcerative colitis is not psychosomatic.

Vol. 15 No. 14/Dec. 6, 1990

Tissue printing creates great impressions

A plant biologist at Washington University has revitalized a technique traced back to ancient times that will provide molecular biologists rapid, novel insights into the structures of plant cells and tissues.

Joseph E. Varner, Ph.D., Rebstock Professor of Biology, is using a variation of a technique first published in a scientific journal more than 30 years ago. The technique has been virtually ignored since that time. Varner estimates that "tissue printing, a new twist to a method described in 1957 by R. Daoust to localize enzyme activities in animal tissue, is 10 times faster, cheaper and more efficient than traditional methods of preparing and analyzing plant samples. A precursor of the technique, Varner says, can be seen in pottery thousands of years old in the form of cereal grains embedded into clay.

Tissue printing involves pressing a freshly cut section of plant on a small piece of nitrocellulose paper to reveal in seconds a detailed print of its tissues. The paper is like a physical impression with a resolution of two microns, or two-thousandths of a millimeter. To get a chemical impression of the sample, which reveals the characteristics of proteins, sugars and nucleic acids, Varner uses nylon paper, which is less sticky than nitrocellulose, and allows him to wash off unwanted material. The resolution in many cases yields information to the nearest cell. The biologist estimates that tissue-printing sets at least 90 percent of the information that can be derived by using traditional techniques involving microscopy.

"We're reinventing the wheel," says Varner, an internationally re-nowned plant biologist who is a member of the National Academy of Sciences. "To get a physical print, there's no staining, nomessing around; you press it and that's all there is to it. Scientists are just now beginning to pick up on it, with at least a dozen laboratories using it in the United States. One of the nicest things about it is that it provides instant gratification. Anyone can do it. In seconds, you see something, and what you see is a serious representation of anatomy."

Molecular biologists using genetic engineering are expected to benefit greatly from the technique, which can allow them rapid access to the structures of plants and a method to monitor processes inside plant cells and tissues. Tissue printing also will be a boon to science teachers and schoolchildren because the technique will let them see nature as swiftly as a Polaroid snapshot.

Nitrocellulose paper, related to guncotton, is heavily nitrated cellulose that is the raw material of such manufactured goods as paper, rayon and cellophane. In recent years, nitrocellulose paper has been used by scientists for filters and for immobilizing proteins and nucleic acids already separated by a technique called gel electrophoresis.

Varner explained the techniques of tissue printing to an international audience of plant biologists in Ca-

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Basketball Bears face challenging seasons

The 1990-91 basketball seasons are under way for Washington University's women's and men's teams.

The women's team, under the guidance of head coach Mary Fahey, is off to a 5-1 beginning after winning 25 of 26 regular-season games one year ago. The Bears, ranked fifth nationally in one preseason publication, were defeated in the opening contest, losing to NCAA Division III upset DePauw University, 75-73. The Bears turned the corner quickly though, defeating Principia College 112-90 before winning the final four regular season team tournaments.

Over the Thanksgiving holiday weekend, the Bears defended their Washington Tournament crown, knocking off Rhodes College 60-30 and Augustana College, one of last year's four NCAA regional participants 64-54. This past weekend, the Bears continued their winning streak at the North Central College Tournament. Washington opened the North Central Tournament by defeating NCAA Division III champion Hope College, 61-45. In the tournament finale the Bears won several of their fifth straight game of the season with a 54-40 victory. "We've rebounded well from the opening loss to DePauw," says Fahey. "We're doing the little things. We're being good support from the younger corps, and that's been the difference so far this season."

Although the Bears are getting good support from the younger corps, it's been the upperclassmen — senior Karen Hermann and junior Michele Lewis — leading the way. Hermann picked up Most Valuable Player honors at both Washington and North Central tourneys. She leads the Bears in scoring with a 33.5 point per game average. Lewis is second with a 27.2 average.

The men's team, ranked 10th and 19th nationally according to respective preseason polls in Sports Illustrated and Basketball Digest, have played an ambitious schedule thus far, and the Bears' 1-4 start may not be representative of the squad's potential.

Hurt in the offseason by a key injury to senior guard Junior Fiedler, the Bears have had to make do with less talent this season. Leading the way for the Bears is Hermann — leading the way. Hermann continue their winning streak at the North Central College Tournament. Washington opened the North Central Tournament by defeating NCAA Division III champion Hope College, 61-45. In the tournament finale the Bears won several of their fifth straight game of the season with a 54-40 victory. "We've rebounded well from the opening loss to DePauw," says Fahey. "We're doing the little things. We're being good support from the younger corps, and that's been the difference so far this season."

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New faculty are introduced

The Record is a weekly series profiling members of the Hilltop and Medical campuses.

Kendall J. Blumer, Ph.D., assistant professor of pathology and physiology at the School of Medicine, comes to the Washington campus from the University of California at Berkeley, where he was a postdoctoral fellow in the Department of Pathology. He received his bachelor's degree in biochemistry from Duke University in 1977 and his doctorate in biochemistry from Duke University in 1986. His research efforts focus on defining the mechanism and regulation of signal transduction and growth control in yeast.

Cheryl M. Coffin, M.D., assistant professor of pathology at the School of Medicine, comes to St. Louis from the University of Pennsylvania, where she was assistant professor of pathology at Thomas Jefferson University and associate pathologist at the Rhode Island Hospital. She received her bachelor's degree, magna cum laude, in biology from Bowdoin College in 1975 and her medical degree from the University of Vermont College of Medicine in 1980. Her research interests include pediatric pathology and general surgical pathology.

Carolyn M. Drejser, M.D., assistant professor of pathology at the School of Medicine, comes to St. Louis from the University of Toronto, Ontario, Canada, where she completed her training in thoracic and cardiac surgery. She received her medical degree from the University of Alberta in 1981 and an emphasis in biochemistry from the University of Colorado in 1979 and from the University of Colorado School of Health Sciences in 1984.

Sally A. Goldman, Ph.D., assistant professor of computer science, and computer science to problems in artificial intelligence and related algorithms. A 1985 recipient of a National Science Foundation Graduate Fellowship, she received a bachelor's degree with honors in computer science from Brown University in 1984, and a master's degree and doctor's degree in computer science from MIT in 1987 and 1990 respectively.

Tissue printing

...grainsfixed by firing on ancient earthworms. "This is one of the more technical prints on museum pieces. It's also the process of using sweet or fine fingertips and skin prints. We used to make cellulosic acetate to make edible prints in plants. You could say theory is similar to the instant camera. As simple as it is, it provides wonderful access to some sophisticated biology."

In 1987, Varner was pondering a way to localize proteins in plant sections and become discouraged by the amount of work it was going to require when Carolyn Dresler read a paper a Dassaut paper published some 30 years earlier.

"I asked Gladys Cassab, who was working with me at the time, to do some prints. She took a sample, put it in the afternoon," Varner recalls. "The next morning she showed me the first results, and we did the rest as tissue prints. We were amazed at how fast the process went. Dassaut was an animal physiologist. I don't know anything about him other than his papers, the second being published in 1965. It's astonishing so few people have tried to work with his methods."

To actually see the print, Varner uses a small flashlight and a 95 pocket lens with 22-power magnification and a broad field of vision. He places the plant sample - the clear hard plastic surface of a container purchased at a dime store — and shines the light beneath the surface so he can peep through the lens. These simple glasses, he says, are all that a biologist needs to get samples on a field trip.

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Howard Nemerov receives a proclamation declaring Howard Nemerov Day from Dee Joyner, a representative for St. Louis County Executive H. C. Milledge, as St. Louis City Mayor Vincent C. Schoemehl Jr. applauds. The St. Louis Award was given to Nemerov at a ceremony in Edison Nov. 26.

Nemerov receives St. Louis Award

While accepting the 1990 St. Louis Award, Howard Nemerov said being recognized "for doing what you damn please for 52 years — that's all right." Nemerov, poet laureate of the United States and Edward Mallinckrodt Professor of English and Philosophy University. Professor Emeritus, received the award during a ceremony held Nov. 26 in Edison Theater.

Nemerov was named poet laureate of the United States and consultant to the poetry to the Library of Congress in 1984 and held the honor until 1990. Nemerov earned the St. Louis Award for "the honor he has brought to the St. Louis community through outstanding literary achievement," said Chancellor William H. Danforth, secretary of the St. Louis Award Committee. Nemerov was best described by Richard Wilbur, who succeeded in the poet laureate post, as a "writer of unmatched intelligence, and a master poet equally at home in the wisecrack and in the noble voice." Danforth concluded, "Howard sees the world clearly and expresses his vision with beauty."

Nemerov won the Pulitzer Prize for poetry and the National Book Award in 1978 for The Collected Poems of Howard Nemerov and the Bollingen Prize for poetry in 1981. In 1987 he also won two distinguished awards. He was one of 12 recipients of the National Medal of Arts, presented by President Ronald Reagan, and was the first recipient of the Aiken/Taylor Prize in Poetry, presented by The Sewanee Review and the University of the South. Nemerov has written 25 books, including poetry, short story and essay collections, and three novels. His most recent books were both published in 1987. War Stories. Poems About Long Ago and Now, University of Chicago Press; and The Oak in the Acorn: On Remembrance of Things Past and On Touching Prizes, Who Will Never Learn, Louisiana State University Press.

Employer-provided courses tax change

The current tax law for employer-provided graduate courses affecting the University remission and the departmental reimbursement has been changed.

For taxable years after Dec. 31, 1996, employer-provided graduate level tuition remissions/reimbursements is no longer reportable as wages nor subject to employment tax withholding up to an annual limit of $5,250. Amounts above the limit remain taxable. All University eligibility policies remain unchanged.

WASHINGTON UNIVERSITY

WASHINGTON UNIVERSITY FACULTY AND STAFF MAKE NEWS AROUND THE GLOBE.

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

A new understanding of brain development eventually could improve treatment of spinal injuries, according to an article in the Sept. 24 Pittsburgh Post-Gazette. A research team, headed by Dennis D. M. O'Leary, Ph.D., associate professor in anatomy and neurobiology, and Michael W. Kass, M.D., director of surgery, found new evidence that suggests that, as the brain develops, it uses a molecular signaling system to coax axons — which transmit impulses from nerve cell to nerve cell — to grow into a part of the brain that controls motor behavior. The research was reported in the September issue of Science.

Lack of sleep can affect performance in sneaky ways, says an article about executive insomnia that appeared in the Oct. 8 issue of Fortune. Patricia Lack, Ph.D., lecturer in psychology and senior clinical and associate in psychology, was interviewed on ways to avoid insomnia. "Sleep is the American Academy of Arts and Sciences. The poet earned his bachelor of arts degree in 1941 from Harvard University. He was a visiting professor at Washington University in 1960-1970 before joining the faculty in 1970. In addition to Danforth, other members of the St. Louis Award Committee are: W. L. Hadley Griffin, Mrs. Lee M. Lberman, Robert Brookings Smith, Elliot H. Stein, Mrs. Monte C. Throldahl, H. Edwin Trushheim and Leon R. Strauss.

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Some of the most common health problems — from constipation and stool upsets to high blood pressure rate and diabetes — may stem from a buildup of lesions that occurs naturally as you age, according to researchers at the School of Medicine.

Two years ago Schmidt and Roth began their current work to predict where in humans they should look for similar lesions. “The idea is that there is something similar in people that could develop a sympathetic ganglia that served the bowel and other visceral structures — with an unknown role in the sympathetic ganglia after a decade of axonal dystrophy in the aging. Study results appeared in the June issue of The American Journal of Pathology. Schmidt and colleague Kevin Roh, M.D., Ph.D., studied autopsy results of 56 patients age 15 and older. Despite differing causes of death, all subjects showed similar abnormalities in the sympathetic ganglia. The abnormalities became more pronounced with age, particularly in those over 50 years old, and were more prevalent in men than in women. The scientists focused on nerve cells within the autonomic nervous system that are not routinely examined because their location makes them difficult to biopsy. They haven't yet discovered the cause of the lesions, but Schmidt and Roth believe the lesions are caused by neuropeptides specific to the sympathetic ganglia after a decade of sympathetic ganglia damage caused by diabetes. In the sympathetic ganglia, the scientists discovered markedly swollen, defective synapses. Synapses are the communication centers of the nervous system and normally one-half a micron in diameter — sometimes 20 times their normal size — in diabetic animals and in disease-free animals, too. These lesions developed in diabetic animals early, about three to five months after disease onset, and occurred more frequently than in the disease-free animals, whose abnormalities appeared at about one year of age. The lesions appeared in several species, including Chinese hamsters and mice, and in animals that were genetically diabetic.

The lesions are very impressive and unambiguous and represent some of the first findings in the autonomic nervous system in experimental diabetes, which is well characterized in detail for the first time, say researchers at the School of Medicine. "It may be that with sufficient age one finally reaches a critical mass of lesions, which produces images of function— rather than form, was developed at the School of Medicine's Mallinckrodt Institute of Radiology, has received a $400,000 research grant to use Positron Emission Tomography (PET) to study heart disease.

The grant from the National Institutes of Health (NIH) will allow Miller to study coronary artery disease and heart muscle function by enhancing PET images of the heart. PET, which produces images of function rather than form, was developed at Mallinckrodt in the early 1970s. It is most frequently used to measure heart and brain blood flow, volume, and oxygen and glucose metabolism. PET makes images in individual slices, which can be edited to display the entire heart and to stack the images for comparison.

The first systematic analysis of slice-slicing in PET scanners and to generate images that portray blood flow and oxygen utilization.

Robert F. Schmidt, M.D., Ph.D., and colleague Kevin Roth, M.D., Ph.D., are collaborating on work involving the autonomic nervous system.

Age wasn't the only influence in lesion development. Sex was also a factor. In subjects age 60 and above, men had almost twice as many lesions as women. "There is an aging effect and there is also a male/female difference," Schmidt says. "Men accumulate more lesions than women. Almost all of our animal work was done on males, so we didn't consider that there might be a difference with sex until we got to humans. The increased frequency of abnormal nerve terminals in males is interesting and might reflect male sex or male-oriented habits, such as increased smoking, alcohol use or exposure to various materials in the workplace."

Not all lesions lead to physiological dysfunction, because all biological systems have a built-in safety factor to compensate for small neuronal losses, the investigators point out. They believe their study has identified an age-related loss in the safety factor that may make the system susceptible to an additional insult, such as diabetes or other disease. "It may be that with sufficient age you finally reach a critical mass of pathology that then leads to onset of disease," Roth says. "The increased similarities between the lesions in the aging autonomic nervous system and those that appear in brain tissue of the elderly who have had Alzheimer's Disease, he adds.

"Maybe this is a corollary in the peripheral nervous system, that as people age these lesions continue to accumulate until a point it becomes pathologic and disrupts normal function," says Roth.

While it has been medically established that people with diabetes develop autonomic dysfunction, hard data are scarce concerning the changes in the system that occur with age regard to age. Identification of the lesion is the first step in finding drugs to counteract problems associated with autonomic dysfunction, the scientists recommend. As part of their ongoing study, Schmidt and Roth hope to determine when lesions occur in diabetes and how frequently. "It's a very selective systems-related abnormality," Roth explains. "This implies it may be possible to find pharmacological agents or treatment to affect the NPY-containing system. That would be interesting, but it means that alteration of the line, but it identifies lesions to target."

Elderly's ailments may be caused by lesions

We think we're looking at changes that a normal, healthy person with diabetes could develop," explains pathologist Robert F. Schmidt, M.D., Ph.D., who is studying the onset of neuro-axonal dystrophy in the aging. Study results appeared in the June issue of The American Journal of Pathology. Schmidt and colleague Kevin Roh, M.D., Ph.D., studied autopsy results of 56 patients age 15 and older. Despite differing causes of death, all subjects showed similar abnormalities in the sympathetic ganglia. The abnormalities became more pronounced with age, particularly in those over 50 years old, and were more prevalent in men than in women. The scientists focused on nerve cells within the autonomic nervous system that are not routinely examined because their location makes them difficult to biopsy. They haven't yet discovered the cause of the lesions, but Schmidt and Roth believe the lesions are caused by neuropeptides specific to the sympathetic ganglia after a decade of sympathetic ganglia damage caused by diabetes. In the sympathetic ganglia, the scientists discovered markedly swollen, defective synapses. Synapses are the communication centers of the nervous system and normally one-half a micron in diameter — sometimes 20 times their normal size — in diabetic animals and in disease-free animals, too. These lesions developed in diabetic animals early, about three to five months after disease onset, and occurred more frequently than in the disease-free animals, whose abnormalities appeared at about one year of age. The lesions appeared in several species, including Chinese hamsters and mice, and in animals that were genetically diabetic.

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The first systematic analysis of slice-slicing in PET scanners and to generate images that portray blood flow and oxygen utilization.

Robert F. Schmidt, M.D., Ph.D., and colleague Kevin Roth, M.D., Ph.D., are collaborating on work involving the autonomic nervous system.

Age wasn't the only influence in lesion development. Sex was also a factor. In subjects age 60 and above, men had almost twice as many lesions as women. "There is an aging effect and there is also a male/female difference," Schmidt says. "Men accumulate more lesions than women. Almost all of our animal work was done on males, so we didn't consider that there might be a difference with sex until we got to humans. The increased frequency of abnormal nerve terminals in males is interesting and might reflect male sex or male-oriented habits, such as increased smoking, alcohol use or exposure to various materials in the workplace."

Not all lesions lead to physiological dysfunction, because all biological systems have a built-in safety factor to compensate for small neuronal losses, the investigators point out. They believe their study has identified an age-related loss in the safety factor that may make the system susceptible to an additional insult, such as diabetes or other disease. "It may be that with sufficient age you finally reach a critical mass of pathology that then leads to onset of disease," Roth says. "The increased similarities between the lesions in the aging autonomic nervous system and those that appear in brain tissue of the elderly who have had Alzheimer's Disease, he adds.

"Maybe this is a corollary in the peripheral nervous system, that as people age these lesions continue to accumulate until a point it becomes pathologic and disrupts normal function," says Roth.

While it has been medically established that people with diabetes develop autonomic dysfunction, hard data are scarce concerning the changes in the system that occur with age regard to age. Identification of the lesion is the first step in finding drugs to counteract problems associated with autonomic dysfunction, the scientists recommend. As part of their ongoing study, Schmidt and Roth hope to determine when lesions occur in diabetes and how frequently. "It's a very selective systems-related abnormality," Roth explains. "This implies it may be possible to find pharmacological agents or treatment to affect the NPY-containing system. That would be interesting, but it identifies lesions to target."
Dear Santa:

The Department of Psychiatry at the School of Medicine has established a new program offering specialized care for OCD patients. The Obsessive Compulsive Disorder service provides behavior and family therapy, both on an individual basis and in a group format, as a supplement to any medication treatment. Patients are already receiving the most effective treatment for the illness to a combination of behavior therapy and medication.

"OCD at its worst is an exceptionally debilitating disorder," says Elliot Nelson, M.D., director of the service. "The nature of the symptoms alone may be extremely disturbing to family members, and the very force of the symptoms will often place confining demands on the family, in addition to those that are placed on the patient."

For that reason, Nelson says, family education and therapy is an important part of the Washington University OCD service. And strength of the new service is group therapy, he explains. Patients meet to discuss general principles and techniques, and then divide into groups of three to four similar symptoms can help each other deal with the specific obsession or compulsion they have in common.

Nelson will evaluate each patient accepted to the program, and then work with the patient’s physician to tailor a therapy program. For more information about the new OCD service, call 362-2465.

As part of his rehabilitation from a double-lung transplant, Boruch Teldon rides a stationary bicycle during regular physical therapy sessions.

Ronald G. Evens, M.D., Elizabeth Mallinckrodt professor and director of the School of Medicine’s Mallinckrodt Institute of Radiology, has been appointed to a two-year term on the editorial board of the Journal of the American Medical Association (JAMA), the 107-year-old medical journal commonly referred to by physicians throughout the world. As one of 25 board members, Evens will write editorials and articles, and serve as a resource for reviewing radiological manuscripts and to advise the editor. Evens’ expertise in business and radiology has led him to serve as consultant to industry, medical centers, universities and governmental organizations. His widely known studies of the clinical and socioeconomic aspects of diagnostic imaging are being used to improve the effectiveness of health-care delivery throughout the United States.

Evens is the author of more than 170 scientific journal and conference articles, covering subjects as varied as administrative medicine, medical cost-benefit analysis, new technology development and evaluation, diagnostic radiology and nuclear medicine.
Review shows ulcerative colitis is not psychosomatic

The number of diseases physicians classify as psychosomatic, or psychologically in origin, is dwindling to the point where scientists believe they may become obsolete. Long gone from the list are some familiar suspects like ulcers and hyperthyroidism — each deleted as scientists learned more about those disorders and moved them to the category of ulcerative colitis, once near the head of the psychosomatic illnesses.

"We've looked at the existing studies, and we can't find evidence to support a psychosomatic model for ulcerative colitis," says Carol North, M.D., associate professor of psychiatry at the University of Vermont School of Medicine. According to North, a careful review of the literature linking ulcerative colitis to emotional disorders has revealed major flaws in that research.

She believes the reviews should put to rest the stigma of the psychosomatic label historically borne by ulcerative colitis patients.

Ulcerative colitis (an inflammatory bowel disease, or IBD, along with the related Crohn's disease) is a chronic inflammatory disorder of the digestive system characterized by ulceration of the inner lining of the colon and rectum. Its real cause remains unknown. Approximately two million Americans are thought to be affected with IBD, and 30,000 new cases are diagnosed each year.

"Patients with ulcerative colitis carry unnecessary emotional baggage," says North, because they have accepted the traditional notion that, "it's all in your head." The latest research, however, shows "no evidence that ulcerative colitis is any more a psychosomatic disease in its relation to stress," North explains.

With her colleagues, gastroenterologist Raymond E. Cloose, M.D., and David H. Alpers, M.D., North examined all of the scientific articles that have been published on the subject in English since a 1930 paper first addressed the question of whether emotional factors can influence the course of ulcerative colitis. They selected 90 percent of the uncontrolled studies claim to substantiate a psychosomatic model for ulcerative colitis. North adds that although earlier researchers undoubtedly believed they were doing good science, the flaws in the methods researchers use, and the methods they relied on to draw conclusions, have been revealed major flaws in that research.

Commenting on the work, John Heizer, M.D., professor and chairman of psychiatry at the University of Vermont School of Medicine, says, "The psychosomatic concept is ancient one, but it has never been very tight. What North's group has done is subject it to rigorous investigation by the scientific work and show that there is no good evidence to support an emotional origin for ulcerative colitis."

**Every article reviewed**

The reviewers used a computer search, the Index Medicus and article bibliographies to collect 172 journal papers, which they divided into controlled and uncontrolled categories. For the controlled studies, the reviewers examined 90 percent of the uncontrolled studies claim to substantiate a psychosomatic model for ulcerative colitis. North adds that although earlier researchers undoubtedly believed they were doing good science, the flaws in the methods researchers use, and the methods they relied on to draw conclusions, have been revealed major flaws in that research.

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The researchers organized flaws in methodology, which placed the same studies, leaving a total of 108 for consideration. North reports that 25 of the articles were case studies of single patients, and only 34 of the studies were controlled, a basic requirement for modern scientific research. Only 1 of the 108 subjects had evidence of whether any major illness results from psychiatric distress be accurately addressed.

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**Operation HealtStreet**

AIDS testing is among services offered at two outreach centers

A young mother with two toddlers and a baby on the way needs advice on family planning, but doesn't know where to turn. An elderly man with a family history of heart disease wonders about his risk for ulcerative colitis based on a recent recurrence of a heart attack and an episode of heart failure. The patients can go to one of two HealtStreet centers located in high-risk areas to educate the community on ways to reduce the risk for HIV infection. The centers are service programs in addition to offering AIDS education and HIV testing. Testing and referral for patients with diabetes and high blood pressure will be offered, as will family planning and immunizations.

"There is an urgent need to provide treatment programs for intravenous drug users who are also at risk for HIV infection," says epidemiologist Linda B. Cotler, Ph.D., principal investigator of the study. "This project enables us to educate this high-risk population and monitor their health habits following treatment."

The centers are part of a $5.5 million project in the School of Medicine's psychiatry department. The purpose of the project is to persuade drug users to seek a clean and drug-free life by providing 500 new treatment slots at a drug-free program and a methadone maintenance clinic. Treatment is provided free of charge. In addition, the project will provide street outreach in high risk areas to educate the community on ways to reduce the risk for HIV infection. The centers are located at 3500 Delmar and 3552 Gravette.

For more information, contact Cotler at 362-2420.

**Area man is longest to live on heart device**

A 61-year-old St. Louis man has undergone a successful heart transplant after surviving a record 91 days on a heart assist device implanted at medical center.

The device, called a Thoratec Ventricular Assist Device (VAD), was implanted at Jewish Hospital, one of only 20 hospitals in the United States using this mechanical circulation support system. The Thoratec VAD had not previously been used for this length of time.

The Thoratec VAD has two uses, explains Thoratec assistant professor of surgery at the School of Medicine and cardiothoracic surgeon at Jewish Hospital and St. Louis Children's hospitals. "One is for what we call bridging. That's when the patient's heart is so weak and we're waiting for a transplant," he says. "The other is when there's a mechanical support while recovering after surgery. A patient can then actually be removed from the VAD and the heart function normally again."

The patient received the device after undergoing emergency coronary bypass surgery following unsuccessful angioplasty. He could not be weaned from the heart-lung machine because of severe heart failure, so Thoratec VADs were implanted on the left and right side of the heart. Surgeons had to implant two devices because both sides of the patient's heart were in such poor condition.

Although the patient was stabilized, his heart would not recover sufficiently to permit removal of the device. The Thoratec VAD connects directly to the patient's heart and is inserted through an incision in the left side of the chest. After surgery, the technique is identical to that used for heart transplant surgery, except the Thoratec VAD is left in place.

The Thoratec VAD functions like a pump to help the patient recover and bring the heart pumps back into a normal rhythm. The device is then removed and the patient dismissed from the hospital.

"I'm really happy that this patient was able to go home earlier than expected," says Thoratec. "We've worked very closely with the medical team at Jewish Hospital and we've been able to provide the highest level of care possible for the patient."
TIAA PERFORMANCE UPDATE

Growth Rates of a Premium Allocated to TIAA

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CREF PERFORMANCE UPDATE

CREF Stock Account *

<table>
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</thead>
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<tr>
<td>1 year</td>
<td>8.48%</td>
<td>8.48%</td>
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<td>8.5%</td>
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CREF Money Market Account

For the seven days ending October 16, 1990:

- Net annualized current yield: 1.77%
- Net annualized effective yield: 8.07%

CREF Bond Market Account

Cumulative Rate of Total Return

| Since inception (11/1/83 - 9/30/90) | 3.80% |

CREF Social Choice Account

Cumulative Rate of Total Return

| Since inception (11/1/83 - 9/30/90) | -2.68% |

The past performance shown here is not indicative of future rates of return from the CREF account. Yields may vary, and the total return for each account may rise or fall. Thus, the units you own in the CREF accounts may be worth more or less than their original price. Investment result shown above are after all investment, administrative, and distribution expenses.

*As of April 1, 1989, a registration statement for CREF variable annuities became effective under the relevant Securities and Exchange Commission, but CREF stock’s management and investment objectives did not change.

CREF money market account and TIAA are steady performers

Is recession on the horizon? Is inflation rising? Are the bears devouring the stock market? Has the market outperformed accumulations. The answer depends on the success of TIAA’s long-term investments. While long-term interest rates are not as high as they were in past years, they still offer a meaningful return. The table above looks at the total interest rates (including the current dividend) participants earn for their TIAA accumulations. Because of TIAA’s long-term returns, rates are not available. The trade-off is that TIAA generally credits higher interest income than money market accounts. (Future plans will provide for gradual transfers out of TIAA in starting 1991.)

If you’re reassessing how you allocate your contributions, or if you’re thinking of transferring funds in light of the changing economy, TIAA suggests considering CREF accounts. They’re good sources of basic information about the future and the uncertain future.

Reminder to Major Medical enrollees

As you are now aware, Pension Associates Inc. (PAI) is replacing TIAA as the administrator of the Major Medical plan. PAI is a subsidiary of Blue Cross-Blue Shield of Missouri. The coverage under the Major Medical plan will remain basically the same as it was under TIAA.

The real purpose of this notice is to remind you that action must be taken to cancel or continue the PAI Major Medical plan.

Active employees

The open enrollment period is over and you may not change your current health coverage unless you have a family status change. A family status change was described in the Oct. 1, 1990, open enrollment letter. Therefore, you will be continued in the Major Medical plan unless you canceled the coverage during open enrollment.

However, no claims will be paid by PAI until the plan is effective if you purchase a new enrollment card.

In addition, all active employees who have not completed and returned the enrollment card by Nov. 15, 1990, may face delays in receiving their PCS prescription drug card.

Prescription cards are on the way

The PCS prescription cards should be mailed to you the first week of December, along with a description of the plan.

Active employees participating in a Washington University medical plan will continue to receive their PAI cards automatically. No action is required by you.

If you need a prescription filled and you have not received your card, you should purchase your prescription from a local pharmacy. You will then be entitled to file a claim for reimbursement with PCS.

Mental health services offered at Jewish Hospital

Jewish Hospital at the Washington University Medical Center offers a full range of mental health services provided by psychiatrists, psychologists, and social workers. These services include:
- Inpatient and outpatient psychiatric services (454-8560)
- An Alcoholic and Chemical Dependency Program (454-9867), which includes inpatient care as well as an evening outpatient program.
- An outpatient psychiatric clinic

Personnel News

Personnel News appears monthly in the Record and is prepared by Gloria W. White, vice chair for personnel and assistant to the chancellor for personnel and affirmative action officer, and other members of the personnel office. Personnel News is designed to keep office, departmental, and divisional personnel and the families informed of the benefits and opportunities available at the University.
Monday, Dec. 10
7:30 p.m. Women's Junior Varsity Basketball vs. Blackburn College. Field House.
7:30 p.m. Women's Basketball vs. Methodist College. Field House.
Thursday, Dec. 10
9:30 a.m. Men's Basketball vs. Methodist College. Field House.
3:15 p.m. Men's Basketball vs. Millikin University. Field House.
5:00 p.m. Men's Basketball vs. Southern Illinois. Field House.
9:30 a.m. Men's Basketball vs. Washington-St. Louis. Field House.
3:00 p.m. Men's Basketball vs. Washington-St. Louis. Field House.
Tuesday, Dec. 11
7:30 p.m. Women's Junior Varsity Basketball vs. Black College. Field House.
Wednesday, Dec. 12
8:00 p.m. Dance Theatre of Harlem will perform to the music of Samuel Coleridge Tucker.
Thursday, Dec. 13
4:00 p.m. WU Faculty Senate Meeting.
8:00 p.m. WU vs. Kaskaskia College. Field House.
8:00 p.m. Dept. of Music Presents Scenes From "Beaches." Features the flute choir, piano trio, flute quartet, baroque ensemble, and cello quartet. Directed by Robert Small, WU artist-in-residence.

Friday, Dec. 14
4:00 p.m. Dept. of Music Presents Scenes From "Dean Helios and His Hellenic Program,"
4:00 p.m. Dept. of Music Presents Scenes From "The Role of Peptides in the Modulation of Nociception," Mary Womack, WU Dept. of Pharmacology.
4:00 p.m. Dept. of Music Presents Scenes From "The Color City-Wide Radiology Conference,"
4:00 p.m. Dept. of Music Presents Scenes From "Introduction to TeX," Steven G. Krantz and William S. Gilbert.
4:00 p.m. Dept. of Music Presents Scenes From "Hemingway and Popular Culture," Through Jan. 15, 1991. Special Collections, Lib. 5, Olin Library. 8:00 a.m. to 5:00 p.m. weekdays. For more info., call 889-5574.
4:00 p.m. Dept. of Music Presents Scenes From "Callihan's New Matter. The Emergence of Medicine in Early Modern Europe (1450-1700),"

Saturday, Dec. 15
4:00 p.m. Dept. of Music Presents Scenes From "The Development of Nerve Cell Receptors with an emphasis on GABA and a review of the Control of an Enzyme by Phosphorylation," B. Hultgren, WU Dept. of Molecular Microbiology.
4:00 p.m. Dept. of Music Presents Scenes From "Biochemical Membrane Mechanisms and the Control of an Enzyme by Phosphorylation," B. Hultgren, WU Dept. of Molecular Microbiology.
4:00 p.m. Dept. of Music Presents Scenes From "The Synthetase Structure, Target for Drug Design, Molecular Biophysics Seminar,"
4:00 p.m. Dept. of Music Presents Scenes From "The Introduction to TeX," Steven G. Krantz and William S. Gilbert.
4:00 p.m. Dept. of Music Presents Scenes From "Hemingway and Popular Culture,"

Sunday, Dec. 16
4:00 p.m. WU Faculty Senate Meeting.
8:00 p.m. WU vs. Millikin University. Field House.
8:00 p.m. WU vs. Millikin University. Field House.
8:00 p.m. WU vs. Millikin University. Field House.
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