Medical school classes resumed, and the 122 members of the class of '85 were welcomed by faculty, staff, and the class of '84. The story begins on page 10.
Outlook Magazine

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On the cover:
The fountain plaza in front of the old Maternity and McMillan hospital buildings is a popular summer oasis for medical center staff and visitors.

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Evarts A. Graham, M.D.: The Father of Chest Surgery

The Author

Thomas B. Ferguson, M.D., (right) is professor of clinical surgery in the Division of Cardiothoracic Surgery. He received his M.D. degree from Duke University in Durham, N.C., in 1947 and interned at Duke Hospital. Ferguson came to St. Louis as assistant resident in surgery at Barnes Hospital in 1953. He was a Fellow in thoracic surgery from 1954 through 1956. He became affiliated with the School of Medicine in 1956, serving as instructor in thoracic surgery, and has, ever since, continued his service on the clinical faculty of the school.

Ferguson is currently president of the American Association for Thoracic Surgery and is president-elect of the American Board of Medical Specialties. He is past president of the Society of Thoracic Surgeons and past chairman of the American Board of Thoracic Surgery. Among the honors and prizes he has earned are: Alpha Omega Alpha, the Distinguished Service Medal of the American Heart Association, Duke University Medical School's Distinguished Alumnus Award, the Sydney S. Pearl, M.D., Award for Inspirational Teaching (WUMS 1980), and the St. Louis Metropolitan Medical Society Award of Merit in 1980. His curriculum vitae lists nearly 30 special lectures and visiting professorships, including the 13th Evarts Graham Lecture in May 1981, which is the basis of this article.
The Graham Lectures

In 1961, the first series of Graham lectures operated under the general supervision of the University's Lectures Committee which was chaired by Nobel Laureate and former chancellor Arthur H. Compton. In 1968, J.G. Probstein, M.D., emeritus associate clinical professor of surgery successfully urged the Harry Freund Memorial Foundation to sponsor the lectures. Probstein, had, at that time, completed 15 years of service as medical consultant to the Freund Foundation. Graham lectures have been given by such distinguished visiting professors as Owen H. Wangensteen, M.D., Samuel A. Wells, Jr., M.D., the newly appointed Bixby Professor of Surgery at Washington University School of Medicine; and Nobel Laureate Sir Peter Medawar. Evarts A. Graham was chairman of the school's Department of Surgery and surgeon-in-chief at Barnes Hospital from 1919 until 1957. Scientist, surgeon, teacher and leader, he is often called "The Father of Chest Surgery."

For the 13th Evarts Graham Lecture, I wish to recall some of the highlights of Graham's career and relate a few vignettes from his life," Ferguson said in his introductory remarks. "We at Washington University are very proud of this man; but, beyond this, he is recognized as one of the leading surgical figures of this century, and I believe a brief recounting of his career would be of interest. Certainly for the young surgeon he provides a template of the very best in surgical education, research and practice."

Evarts Ambrose Graham was born in 1883, and died in 1957. He attended Princeton University where, during his sophomore year, he planned his life career — to do major surgery, to engage in research work, and to have a clinic of young men who would be interested in studying and developing ideas. This was quite a grand design from the fertile brain of a college sophomore, but certainly he realized all of these objectives — in spades!

The first paper in his large bibliography was published in 1906, a year before he was graduated from Rush Medical College where his father, David Graham, was a professor of surgery. The foundation for his career was established by the post-graduate training he took, not only in surgery, but in pathology, physiology and biochemistry. He undertook these studies at a time when even minimal post-doctoral education was almost unheard of. Edward Churchill, M.D., of Harvard, called this period of his life Graham’s "hegira," referring to Mohammed’s flight from Mecca to Medina. By this he meant Graham's purposeful flight from surgery which, in fact best prepared him for his outstanding surgical career.

In 1914, he met Helen Tredway Graham and married her. They were married in 1915 and died in 1957. Helen Tredway Graham carved her own as a professor of Pharmacology at Washington University. They were a life-long devoted couple.

Graham devised a simple clinical method to make certain the empyema was mature. A sample of fluid was removed each day by thoracentesis and a tube taped to the foot of the bed. When the solid matter became more than 75 percent of the total volume, the abscess was mature, the mediastinal structures were fixed, and it was safe to proceed with open drainage. This procedure still has clinical relevance.

Not many people knew that Graham was in private surgical practice in Mason City, Iowa, from 1915 to 1918. He said very little about these years, and it was notable that he never included it in his curriculum vitae. However, it was a significant period for him and for all of surgery because, during this time, he was exposed to the unnecessary surgery, ghost surgery and fee-splitting which were so rampant at the time. His experience there shocked and infuriated him. He resolved that if he ever had a chance to do something about these things, he would. History records that he made good this resolve through the American College of Surgeons, as Chairman of the Board of Regents.

In 1918, Graham entered military service and became a member of the Empyema Commission, where immediately his knowledge of physiology was applied to a clinical problem. During the influenza epidemic of 1918, it was the practice — indeed a War Department directive — when empyema developed, to institute open drainage at an early stage. Because the mediastinum and thorax structures were not fixed, the mortality in these cases was around 40 percent. The Commission determined that if only needle aspiration was performed and the pleural infection was permitted to mature — in essence permitting the empyema to become a walled-off abscess — the open drainage could then be done safely. As a result of the Empyema Commission Report, this policy was adopted by the War Department, and the mortality rate dropped from 40 percent to three percent.

It is documented that Graham had no inking, during his war years, of what his future was to be. After his work with
The Father of Chest Surgery

The Empyema Commission, he became commanding officer of the 34th Evacuation Hospital in France. After the armistice, he said to a friend, "I don't know what will happen to me when I get back. I have no home, no practice, no hospital or teaching position, and I don't know what has become of my wife and son." To this, his friend answered prophetically, "Graham, when you get home, you will be offered things on a silver tray."

This work on empyema and the physiology of the pleural space was instrumental in Graham being selected for the Bixby Chair of Surgery at Washington University in 1919, when he was 36 years old. He was the first young man in the United States to become a full-time professor of surgery. William Halsted at Johns Hopkins had been the first full-time professor, but he had accepted the appointment a few years before his retirement. The concept of full-time professorships had been proposed by the Flexner Report, and adopted first in the nation by Johns Hopkins and Washington University. The manner of Graham's selection provides a comment on the present cumbersome method of academic search committees. The Dean, G. Canby Robinson, M.D., and two faculty members, Philip Shaffer, Ph.D., and Eugene Opie, M.D., were charged with the responsibility of finding a replacement for the retiring Fred T. Murphy, M.D., the first surgical department chairman at Washington University. They recalled hearing of this "bright young man" trained at Rush Medical College. They searched for Graham and found him still in the Army at Fort Sheridan, Illinois. He visited Washington University on June 6 and 7, 1919. His appointment as professor and chairman of the department became effective three weeks later, on July 1. He assumed his position while still in the Army uniform.

Graham devoted 38 years to Washington University, to surgery, and to the world of medicine. The compendium of his accomplishments is virtually without limit. The first was the development of cholecystography. Graham had spent two years, 1913 and 1914, in the study of chemistry at the University of Chicago. When it was reported that chlorinated phenolphthaleins are excreted almost entirely through the bile, it occurred to Graham one evening in the winter of 1922 that by substituting for the chlorine atoms other atoms which would be opaque to x-ray, a shadow of the gall bladder might be obtained. He turned the project over to Warren Cole, who had just finished his surgical residency at Barnes Hospital. The sodium salt of tetrabromphenolphthalein was injected intravenously into six dogs. In five dogs, no shadow was obtained. Fortunately, a faint shadow was seen in the sixth dog. In searching for a reason for this, it was determined that the diener had neglected to feed this sixth animal. Needless to say, Graham and Cole were grateful for the diener's oversight. Graham said of the matter: "Sometimes efficiency can be a curse." Graham and Cole published their results in the Journal of the American Medical Association (JAMA) in 1924, "Roentgenologic Examination of the Gallbladder: Preliminary Report of a New Method Utilizing the Intravenous Injection of Tetrabromophenolphthalein."

In the days after "the great war," as World War I was called, the thoracic surgeon's principal role was "cutting for pus." Without the benefit of antibiotics, the mortality in patients was very high. Particularly formidable was lobectomy for bronchiectasis. Graham, in a literature review in 1923, showed that in 48 cases of bronchiectasis, there were only eight complete successes, an incidence of 17 percent and an operative mortality of 52 percent. For this reason, Graham described a procedure which he called cautery pneumectomy in which, after making certain that the pleura was adherent, he turned a flap of chest wall and literally burned away pockets of pus with a hot soldering iron. Surprisingly, a number of patients...
treated in this manner did well. It remained for Harold Brunn of San Francisco to initiate the beginnings of resectional surgery when in 1929 he reported six lobectomies with but one death. His good results were soon duplicated in a larger series by Churchill at Harvard.

Graham's name is associated most often with his achievements in pulmonary surgery, and so it is not generally appreciated that he also was an early investigator, with Washington University colleague Duff Allen, M.D., in the field of cardiac surgery. Graham was aware of Sir Lauder Brunton's suggestion in 1902 that some day mitral stenosis might be relieved by surgery. In 1922, Allen and Graham published a paper in the JAMA entitled "Intracardiac Surgery - A New Method." Allen and Graham described the use of a cardioscope, which looked something like an early bronchoscope. With the instrument passed through the left atrial appendage of dogs, they were able to visualize all of the intracardiac structures when the convex tip was placed against the surface. They incised the mitral valve leaflets in dogs and demonstrated that the cut surface did not reheel. They actually applied the procedure to one patient with mitral stenosis, but the patient died before the instrument could be put into the heart. They failed to get another patient referred to them. In 1925, Sir Henry Souttar, knowing of the work by Allen and Graham, reported the first case of mitral stenosis approached through the left atrium. He used a cardiotome passed with the index finger. Although the patient survived and was benefited, Souttar, like Graham, was never able to obtain another patient. This led Graham to comment: "A surgeon who has to depend on his medical colleagues for patients should choose his colleagues wisely."

Graham felt that his greatest contribution was successfully accomplishing the first one-stage pneumonectomy for carcinoma of the bronchus. One might wonder why he valued a technical feat over a scientific contribution such as cholecystography, but this can be explained. When Graham, with his laboratory background, had arrived in St. Louis, he was promptly dubbed by detractors as a "mouse surgeon." He recognized his technical deficiencies when compared with the meticulous Halstedian surgeons at Barnes Hospital. This is probably the only area in which Graham ever felt the slightest sense of inadequacy, and thus his surgical triumph was all the more dear.

The first pneumonectomy was performed on April 5, 1933. The patient was Dr. James Gilmore, a 48-year-old Ob/Gyn physician from Pittsburgh. The cancer originated in the left upper lobe, but extended into the left lower lobe, making total removal necessary. The operation was performed in the old Room #1, with Helen Lamb administering anesthesia and Dr. William Adams, later professor at Chicago, as an assistant. Adams later had the distinction of assisting on another landmark surgical operation, that of esophagogastrectomy by Dallas Phemister of Chicago.

In the surgery on Gilmore, exposure was obtained by resecting the sixth and seventh ribs and the adjacent intercostal muscle bundles. Graham stated that he did this "for exposure," and, indeed, the exposure must have been excellent. Pneumonectomy to a thoracic surgical resident nowadays is an easy, indeed almost humdrum, operation. But in 1933 it took towering intestinal fortitude to take the step. Graham's major concern with Gilmore was what might happen with sudden occlusion of the left main pulmonary artery, because he was well aware of the consequences of major pulmonary embolus. He felt, as any true scientist would, that he should put the matter to a direct test. He therefore passed a rubber catheter around the pulmonary artery and temporarily occluded it. When he found no change in the patient's pulse and blood pressure, he felt it safe to go ahead. The operation was done by placing a constricting tourniquet around the pulmonary hilum. Crushing clamps were then placed distal to the tourniquet, and the entire lung was removed, using the electric cautery knife. The open end of the left main
Graham was properly concerned about the size of the residual space and the danger of infection, so he did a concomitant thoracoplasty of ribs three through nine. This sounds like a great deal of additional surgery, but it must be remembered that this was the era of thoracoplasty for pulmonary tuberculosis, and surgeons were accustomed to doing a stage of the procedure in 20 to 30 minutes, skin to skin. With characteristic aplomb, which Graham never seemed to lack, he wrote in the JAMA: “The patient left the operating room in excellent condition, but was nevertheless given a transfusion of 500 cc of blood.” The patient did develop an empyema, which Graham attributed to leaving the first and second ribs in place, and so they were subsequently removed. The empyema healed and the patient was discharged from the hospital on June 18, 1933, a total of 76 days after the operation.

The JAMA article appeared in August 1933, but Graham reported his success at the American Association for Thoracic Surgery meeting in May of that year, while the patient was still in the hospital. It was at this meeting that he experienced one of the few rebuffs in his professional life. He rose to discuss a paper by Howard Lilienthal of New York, entitled “Pneumonectomy for Sarcoma of the Lung in a Tuberculous Patient.” Lilienthal’s patient died post operatively. This gave Graham the desired entrée to present his recent successful case. He went on to say that he did not call his operation a pneumonectomy as Lilienthal had because the procedure of total lung removal should etymologically be called pneumectomy. Another member of the meeting, Dr. Pol Corylos from New York, was not only a Greek but a scholar of the Greek language. He quickly pointed out to Graham that pneumectomy would mean “resection of air,” and further, even this would be wrong because if one wished to construct a world indicating resection of air, it would have to be “pneumotectomy.” Corylos agreed with Lilienthal that the proper term was pneumectomy. This must have been a bitter pill for Graham, who prided himself on his grammer, diction and knowledge of word roots.

Five years after Gilmore was operated upon, Graham invited a group of world dignitaries to visit Barnes Hospital and to review Gilmore’s case because, by this time, he was obviously cured of his disease. Gilmore was also invited to attend the meeting. Graham, at this gathering, described Gilmore as a stoic individual. When informed that he had bronchogenic carcinoma, Gilmore asked Graham what should be done. Graham said that the whole lung might have to be removed. Gilmore asked if this had ever been done before, and Graham said that it had not. Gilmore said, “Do you think you can do it?” And Graham replied without hesitation, “Yes.” Gilmore than returned to Pittsburgh to arrange his business affairs and to have some dental work done which, Graham said, “reflected his optimism and his confidence in his surgeon.” Gilmore then responded to the audience with something Graham had not known until the moment, “That is correct,” Gilmore said, “but I also bought a lot in the cemetery.” Gilmore outlived Graham and, indeed, paid a visit of respect to his surgeon when Graham, himself, was dying of the same disease.

Graham founded The Journal of Thoracic Surgery in 1931 and remained its editor until his death in 1957. In the forward of Volume I, Number 1, he stated that there was a need for a journal devoted exclusively to surgical diseases of the thorax and that this need had been growing since formation of the American Association for Thoracic Surgery in 1917. He said, however, that the Journal would not be confined to papers presented at the American Association meeting. He set the tone for this journal, as well as many other surgical journals, by stating: “Especially welcome will be articles dealing not only with the purely clinical aspects of this field, but also with reports of carefully conducted experimental investigations in the realms of physiology, bacteriology, pathology and so forth, which may have a bearing on clinical problems concerned.” Graham was also on the editorial board of The Archives of Surgery and The Annals of Surgery for many years. He was editor of The Yearbook of General Surgery from 1926 until 1957. His pungent editorial comments on The Yearbook abstracts are a delight to read and reread; I recommend them to you.

Graham was instrumental in founding the American Board of Surgery, and certificate Number One bears his name. The founders’ statement of purpose, which he wrote, says in part: “The American Board of Surgery was created to meet a widespread demand for some sort of recognition of the superior proficiency in surgery which results from a suitable postgraduate training.” Graham was also involved in many national committees, served for years on the National Research Council, and was a member of the President’s Commission on the Health Needs of the Nation. He had a deep social conscience and fought vigorously against such things as...
nuclear testing and atomic fallout. In the twilight years of his professorship, he received awards and honorary degrees from virtually every country in the world. He was able to look back with satisfaction on the fulfillment of the promise he had made to himself when a sophomore at Princeton, "to do major surgery, to engage in research work, and to have a clinic of young men who would be interested in studying and developing ideas." The latter goal was one of his greatest achievements. There was a period when Graham's clinic was the Mecca for physicians the world over. Many internationally known surgeons, including Lord Brock, Ian Aird, Judson Chesterton, Brian Blades, Barney Brooks, Lyman Brewer, Warren Cole, Charles Eckert and others too numerous to list, received training at Washington University under Graham. The sentiment of these grateful pupils is best summarized by the late Lord Brock who said: "The inspiration gained from him in 1929 has been maintained and increased ever since. I can fairly say that my association with him at St. Louis altered the whole course of my surgical life and thoughts. I know that I share this experience with the many other surgeons who had the privilege of working with and being inspired by him. This happy gift of his, of guiding and inspiring younger men, is as noteworthy as his great individual contributions to surgery."

At the same time that Graham was an international figure, he belonged to this University and Barnes Hospital. I am indebted to Ada Hanvey, his secretary for 27 years (from 1927 until his retirement in 1951) who provided me with many photos for the lecture and who shared her memories of the man and his times. As with all great personalities, there are many anecdotes that linger through the years. Some are true while others have the embellishment of time. There are four that I wish to relate.

The first concerns his violent distaste for anyone who did not pronounce his name correctly. He hated with a passion to be called
The Father of Chest Surgery

"eve-arts"; his name was "Ev-arts." Although he was tactful and tolerant in the presence of uninformed dignitaries, his comments to Ada Hanvey after she had escorted errant visitors from the office left little of his opinion to the imagination. He strongly disliked mercurochrome and iodine, which he thought were "faddish." One time when H. Retton McCarroll, a long-time orthopedic surgeon on the staff, was a house officer, he carried a large jar of mercurochrome all the way from the old Barnes Private Pavilion down the main hall of the hospital to 1418. These were, of course, the days when carpeting was unknown and Barnes was called "the marble palace." Unbeknownst to McCarroll, a leak in the container left a blood-red trail all the way down the center of the corridor. Suffice it to say that it was almost the end of McCarroll's career.

A third anecdote relates to Graham's surgical technique. Unimportant things, like finesses in opening and closing the incision were of little consequence to him. One day he was doing a thoracotomy and, with one sweep of his knife, laid the incision were of little consequence to him. One day he was doing a thoracotomy and, with one sweep of his knife, laid it no longer. He applied a clamp to the vessel and declared, "Dr. Graham, that is the artery of Bassett!"

Graham was not much given to anything but business, although he did play in a few softball games between the interns and the staff. However, he was not without a sense of humor. One day, he and Ada Hanvey were standing in the main hall of the hospital just under Graham's portrait by Robert Brackman. A woman, probably a visitor to the hospital, noticed the similarity between the portrait and the man standing below it. She came up and asked if he were the man in the picture. At that point, both Hanvey and Graham looked up and noted that the light over the portrait was not lit. Immediately Graham replied to the lady, "Yes. That's where they put you when your light goes out."

Graham retired as Bixby Professor in 1951. Retirement, however, was not a period of surcease but a challenge and a new beginning. He returned to the laboratory with the zeal of a young graduate student. This period in his life was dedicated to research on lung cancer, beginning with a JAMA publication, co-authored by Ernest Wynder (then a fourth-year medical student) which proved a correlation between cigarette smoking and bronchogenic carcinoma. This link was first proposed in 1939 by Alton Ochsner of New Orleans. Graham initially did not believe Ochsner's study, perhaps because in his younger years he, himself, had been a tobacco user. Later, Graham had the graciousness to admit to Ochsner that he, Graham, was wrong. There followed a large number of reports on the experimental production of cancer in mice with cigarette tars. These studies culminated after Graham's death in the first Surgeon's General Report in 1964, which beyond a question indicts cigarette smoking in the etiology of bronchogenic carcinoma.

Another interest of his during his retirement was wound healing. He felt that little or nothing was known about the subject, and that a better understanding of the fundamental chemical processes of tissue repair might lead to methods of accelerating wound healing from a week or days to a week or two or three days, and the healing of fractures from months to weeks. For these studies, he used as his experimental model the reindeer, which is known to have a phenomenal antler regrowth. This provided a gay time in the old animal quarters atop the medical school building.

Graham died of bronchogenic carcinoma, a disease which he in part helped to conquer. His first indication of trouble was dyspnea, and the process unfortunately was already bilateral and metastatic to the scalene nodes when first identified. His initial concern was not so much that he had cancer, but that since he had not smoked for seven years, this might invalidate his thesis that cigarettes caused bronchogenic carcinoma. It is now known that 13 years must elapse from the time an individual stops smoking until his or her risk for lung cancer becomes equal to that of the nonsmoker.

Graham's terminal illness was swift and merciful. It fell my bitter-sweet lot as a young staff surgeon to escort a seemingly endless procession of medical giants from the airport to his bedside.

In looking back at the life of this great surgeon, how does one decide which of his many contributions was the greatest? My vote would be for one that is not even found in his curriculum vitae. Evarts Graham was the first biochemical surgeon, the first surgical physiologist, in the United States. He brought these disciplines to the operating room. Throughout his career, he never lost sight of their importance in the care of the surgical patient.

For example, in his welcoming address to the freshman medical school class in 1936, he had said: "Those of you who will become clinicians, I would urge to read some journals outside the clinical field, and a monograph now and then on some special aspect of medicine. In this connection, I would commend to you some of the good abstract journals, especially Physiological Reviews. Those who are not going to be clinicians, I would likewise urge to read some of the good clinical journals. Clinical medicine after all is only applied anatomy, physiology, pathology and bacteriology." In 1950, just before his retirement, Graham said: "The physiological frontier of surgery is capable of indefinite expansion if we think of a surgeon as one who is interested in something more than cutting and sewing." Surely history will count this life-long attitude of Evarts Graham as one of his greatest legacies to surgery.

Indeed, Sir William Osler might have had Graham in mind when he said: "The great possession of any university is its great names. It is not the 'pride, pomp and circumstance' of an institution which brings honour, not its wealth, nor the number of its schools, not the students who throng its halls, but the men who have trodden in its service to the serene abode of Fame, climbing, 'like stars to their appointed height.'"
This photograph was taken by Wendell Scott in 1933. Graham and his secretary, Ada Hanvey, are in the surgical office in the Rand Johnson building. Hanvey reported that Graham organized his thoughts so well that when he dictated a paper or a chapter for a book, the material went from his lips to the printer virtually without alteration.
Introducing
The Class of ’85

by Casey Croy

Members of the Class of ’85 assembled in Moore Auditorium and waited for orientation programs to begin.
It used to be, in many medical schools."

John C. Herweg, M.D., Associate Dean, told the entering class on August 26, "that the dean would tell the entering class 'look to your right, and look to your left; one of every three of you will not be here this time next year.'" However, he reassured the Class of '85 that "we don't operate that way at Washington University. If you can make it into this class, we intend to keep you."

A total of 122 students made it into the class, selected from an applicant pool of more than 6,000. The new students come from 56 colleges and universities, including one in Australia and one in England. The School of Medicine accepted 32 of Washington University's graduates. Eight members of the entering class came from Harvard; five each from the University of Illinois at Urbana, Northwestern University and the University of California at Berkeley. Four came from Yale, Stanford, Johns Hopkins, Duke and the Massachusetts Institute of Technology.

"We are confident that all 122 of you will graduate," Herweg told the new class. "If one or two of you do not, it will be because of a change in motivation and probably not due to academic problems." In his welcoming address, Herweg emphasized cooperation, not competition. "You have it made; both the school and the profession are now committed to you. We are committed to getting you to an M.D. degree in 1,361 days. All you have to do is put forth consistent hard work and great effort."

Herweg said that the faculty "is ready to stuff you with basic medical science. I hope you are ready."

Herweg outlined the schedule for the two days of orientation, and gave advice in the manner of Polonius (get enough rest and recreation, lock your cars and be careful crossing Euclid Avenue). At the afternoon assembly, the new class heard brief comments from Samuel B. Guze, M.D., Vice Chancellor for Medical Affairs and President of the Washington University Medical Center. Then, the second-year students put on a show! With nearly two dozen musicians in WUMS II, it was a show worth seeing, and was highlighted by a singing group whose name is the subject of much speculation. The least credible rumor is that the name derives from the 'fact' that many of the singers were responsible for verifying the working conditions of blenders in certain laboratories. Thus, the name Testostertones. Most of the WUMS II class joined in a lively spoof of the school's curious tendency to insist on collecting "Tuition!"

The singers noted the Medical Scientist Training Program (MSTP) as one way a student can handle tuition. Mark Behlke is one of the MSTP students. Originally from El Paso, Texas, Behlke majored in biology at the Massachusetts Institute of Technology. With other MSTP students, he arrived in St. Louis in July to attend two weeks of seminars about the research work at the medical school. Then, he chose a laboratory in which to work until classes began. Although his father, Frank Behlke, is a radiologist in private practice in El Paso, Mark says that he was a minor influence on his career choice. "If anything, he would probably have guided me away from medicine because of increasing government regulations." Mark applied to ten schools, but withdrew from four after receiving several acceptances. "Washington University was unusual," he said. "This MSTP program is one of the best organized that I have encountered. Barbara Fox has everything organized, and Dr. (Luis) Glaser has such good insight and direction. Many schools seem to have a condescending attitude—they will allow you to take time out from medical school to pursue your Ph.D. work. But this whole six-year program is extremely well orchestrated."

According to the second-year class' skit, tuition is paid not only by the MSTP program, but also by the U.S. Public Health Service, the Army, the family bankroll or the working spouse. All extract a pound of flesh in their own peculiar ways. One freshman, however, has another answer. He owns a business and calls himself "a semi-professional kite flyer."

Michael Shapiro and his brother own "The Sky's The Limit," a popular kite store on
I was Michael’s interest in science that led indirectly to kites. Back in the ‘60s, he had vague aspirations of becoming an astronaut and used to read about space explorations, rocketry and flight. After seeing a catalog from a kite store in New York, he became interested in kite flying and then in kite selling. He and his cousin would take an acrobatic kite, with two strings and a 100-foot long tail, and fly it on the beaches of Nantucket Island, making it dive into the waves and climb back to the clouds. They attracted a lot of attention, and so the business began. “We still fly them on the beaches to get attention. Or we fly them in town at night, with glowing chemical light sticks attached to the strings.”

“The Sky’s The Limit” also sells fighting kites, which are popular in India. They are about a foot square and capable of speeds of up to 60 or 70 miles per hour. The special string is coated with powdered glass, and the object of a kite fight is to cut the opponent’s string. “The parafoil is the best thing going in kites,” according to Michael. Made of nylon about a yard square, parafoils have no sticks but are rather like a wing with shroud lines “similar in shape to the parachutes that stunt skydrivers use.” And for the record, Michael said that the world’s biggest kite was built in a community college gym, was 3000 square feet in area and snapped a one and one-half-inch thick rope when flown.

Michael is the son of an ophthalmologist and received his bachelor’s degree in biochemistry at Dartmouth, where he was vice president of the year book, member of the varsity fencing team, and active in the outing club. He is from rural New Jersey and his trip to begin medical school “was my second time to be west of the Mississippi and my first time to be in a big city environment. Driving in traffic is something else, and I never leave home without my map.”

Driving in traffic is not a new experience for Vera Bennett, but her trip to take up residence in St. Louis was. She drove from her home in Bloomfield, Connecticut. “It was the first time I’ve driven on such a long trip by myself,” she said. “And I loved it.” In her first few days, Vera and some new friends took advantage of having a car to explore the city. “There is so much more than I thought there would be at first,” she said. Vera received her undergraduate degree in biology at Harvard, her parents’ alma mater. Her father has a Ph.D. in applied mathematics, and her mother is an attorney. She has a brother and sister. Vera became aware of a strong interest in the sciences when she was in high school. “I started in college as a biology major because of the variety of courses in the major,” she explained. By her sophomore year, she had decided to go into medicine. She applied to 16 schools, and her final choices narrowed down to Jefferson Medical College in Philadelphia, the University of Connecticut, and Washington University. “I liked St. Louis better than Philadelphia, and Washington U. better than Jefferson. The U-Con would have been too close to home, and it’s out in the boondocks!” Vera enjoys bicycling and swimming, and she plays the flute. She was a member of the Harvard marching band. She was also treasurer of a group known as Black CAST, (Community And Student Theatre), and was active in an organization of black science students. Vera includes macrame and sewing among her hobbies, and she enjoys making her own clothes. “I am so tall,” she said (6 ft. 1 in.) “that it is hard to find anything that fits well.” High on her agenda for the early weeks of her first year in medical school is “making sure that I get myself disciplined and organized. There is a lot to do and not enough time. I want to make sure that I plan things out very well.”

Grace Tannin’s presence in the Class of ‘85 is in accordance with a plan known as the Scholars Program in Medicine which provides provisional acceptance to the School of Medicine to students entering Washington University from high school. One of the major goals of the program is to encourage students to take a broad range of subjects during their undergraduate years, rather than stocking up on pre-medical sciences. Grace majored in Russian language and in biology, and last February through May, she studied at Leningrad State University in the Soviet Union. With 35 other American students, she became totally immersed in Russian conversation, phonetics, grammar, literature and translation. “We lived in a dorm,” she said, “and we spoke Russian all the time, even to the Americans. It was easier not to have to switch back and forth.” She started studying Russian in high school “because it was new and different. It is like a puzzle, an infected language...
with different cases like Latin and German." She especially enjoyed Russian literature and intends to continue reading it. Grace compared Leningrad's size to that of St. Louis, but noted that the city is surrounded by "huge apartment complexes along the outer edges," rather than low-density suburbs. Grace returned to the U.S. with several Russian fur hats and some U.S. maps printed in Russian. "Those are interesting, just in seeing what is on the map and what isn't," she said. "St. Louis is on the map, of course, but a lot of the bigger suburbs are not. University City is." Grace is from Chappaqua, New York, enjoys swimming and most amateur sports, and used to compete in high school gymnastics. Her mother is a physical therapist. "My family and friends encouraged me to try for medical school."

Another member of the Class of '85 is glad to be in St. Louis. "The heat seems just like home," said Keith Thulborn, for whom home is Melbourne, Australia. The emus and kangaroos roam not far from his family's house, and platypus can be seen in sanctuaries. Keith holds a Ph.D. degree in Biochemistry from the University of Melbourne in Australia and became a medical student in St. Louis as a result of his post-graduate work in nuclear magnetic resonance at the University of Oxford in England. "Nuclear magnetic resonance is a very new, non-invasive technique for studying biochemistry," he explained. "And it was pioneered at the University of Oxford." While there, Keith met Joseph Ackerman, assistant professor in the chemistry department on the Hilltop Campus. Ackerman is establishing a nuclear magnetic resonance facility and Thulborn came to Washington University to continue his work, and to medical school to prepare for the next phase of his work. "Nuclear magnetic resonance has clinical applications," Thulborn said, "and my becoming a student is to enable me to gain the perspective to see the application of this research, and to continue doing this research."

This is his fourth visit to the United States. "The U.S. and Australia are thought to be similar, but actually they, and England, are completely different in many respects. He mentioned the varying ranges of standards of living and the sense of space. "I felt claustrophobic in England, being used to the open spaces of Australia. England seemed to be all terrace houses, streets and pavement. The U.S. is more open, but in a different way than Australia. There are a lot of highways and parking lots." He is looking forward to the next four years "in an environment different from Australia and England. Travel makes you aware of being vulnerable. And it makes you grow. I've never lived in a multicultural environment before. This will be a worthwhile experience."
Research Update: Hybridoma Monoclonal Antibodies

The nation's largest single university-industry agreement for hybridoma technology research, totaling $3,881,250, was announced September 1 by Washington University and Mallinckrodt, Inc. The hybridoma cell results from artificial fusion of a cell which produces antibodies, and a tumor cell. The hybridoma inherits the normal cell's ability to manufacture antibodies, and the malignant tumor cell's capacity to reproduce virtually forever. By means of a technique pioneered in 1975 by Cesar Milstein and George Kohler of Britain's Medical Research Council, scientists can now clone lines of hybridoma cells which produce extremely specialized antibodies called monoclonals.

Mallinckrodt, Inc., will support medical school scientists' research into applications of hybridoma monoclonal antibodies (HMA) to immunology, heart disease, malignancies, blood clotting and infectious diseases. Largely through the leadership of Joseph Davie, M.D., Ph.D., professor and head of the Department of Microbiology and Immunology, medical school researchers have been using hybridomas in their work for approximately three years. Gustav Schonfeld, M.D., Barnes Hospital physician, professor of medicine and director of the Lipid Research Center is using hybridomas to develop a new approach to identifying and characterizing molecules known to be an important ingredient in atherosclerosis. Laurence A. Sherman, M.D., professor of medicine and pathology and director of the Barnes Hospital Blood Bank, and George D. Wilner, M.D., associate professor of pathology, are looking for hybridoma antibodies for use in the study and diagnosis of thrombosis. Wilner is on staff at Barnes and Jewish hospitals. Patrick R. Murray, Ph.D., assistant professor of medicine and pathology; George Kobayashi, Ph.D., assistant professor of medicine and pathology and director of the Barnes Hospital Microbiology Laboratory, are attempting to use HMA to study malaria, fungal infections and a potentially lethal gastrointestinal infection. This work has been supported by a National Institutes of Health project grant, with which the school established a laboratory to centralize work on HMA.

As researchers published scientific papers, companies responded with inquiries about possible commercial and health-related uses for HMA. In fact, more than a dozen firms have contacted the School of Medicine during the past two years.

"This got us thinking," Davie said, "about how important this type of research could be for the University, for industry, and for society." Davie subsequently contacted Jay McDonald, M.D., associate professor of medicine and pathology and director of Barnes Hospital Diagnostic Laboratories, and they organized a plan to present to industry. The result was the contract between Mallinckrodt, Inc., and the University.

The three-year $3.8 million contract will support production and evaluation of hybridoma monoclonal antibodies for use in diagnostic and clinical medicine. The collaboration with Mallinckrodt will bring HMA technology out of the academic laboratory and into public use through normal channels of trade and commerce. Mallinckrodt will have the option to market any results from the sponsored research, while the University will retain title to all patent rights resulting from the research. Royalties earned by the University on sales of products will be used for educational programs and medical research. If Mallinckrodt elects not to market any results, the University has the option of licensing other companies to do so. University scientists are free to publish their results. Mallinckrodt will review the articles to insure that patentable developments are promptly protected. The University scientists will also be free to distribute new cell lines to colleagues at other academic institutions for research purposes.

A five-member advisory committee will manage programs conducted under the agreement, and will select for funding research proposals submitted by medical school scientists. In addition to Davie and McDonald, the committee includes: David Kipnis, M.D., Adolphus Busch Professor, head of the Department of Medicine and Physician-in-Chief at Barnes Hospital; Paul Lacy, M.D., Ph.D., Edward Mallinckrodt Professor, head of the Department of Pathology and Pathologist-in-Chief at Barnes Hospital; and Dr. Thomas O. Oesterling, vice president and general manager of research and development in the medical products group of Mallinckrodt, Inc.

Mallinckrodt is an old-line St. Louis company whose founders and management have an outstanding record of support for Washington University. The chemical manufacturer has pioneered many important developments in health care. In 1924, Mallinckrodt, in conjunction with Evarts A. Graham, M.D., head of the Department of Surgery at Washington University School of Medicine, produced the first x-ray contrast medium for visualization of the gall-bladder. The Mallinckrodt family and Graham worked to establish the Mallinckrodt Institute of Radiology 50 years ago. In 1951, Mallinckrodt scientist Vernon H. Wallingford synthesized the first triiodobenzoic acid molecule for use in x-ray contrast media to study the kidneys, brain, heart, and other organs. In 1966, the company became involved in nuclear medicine and today it is a leader in the development and marketing of radiopharmaceuticals throughout the world. An outgrowth of the company's work in radiopharmaceuticals was the development of a line of radio-immunoassay (RIA) diagnostic tests in 1974. RIA kits are used for such purposes as monitoring thyroid function, early detection of pregnancy, and possible detection of cancer in the prostate gland.

In 1980, Mallinckrodt reported earnings of $36,002,000 on sales of $441,795,000. The health care market and diagnostic business accounted for approximately half of the company's sales, with the remainder being in specialty chemicals, food, flavors and fragrances.

At a press conference held in Moore Auditorium to announce the research agreement, Samuel B. Guze, M.D., vice chancellor for medical affairs, said: "One of the first recommendations of the Task Force on the Future of Washington University was that the medical school seek to develop new relationships with industry. I am very pleased to be here to announce the first of these new relationships." Guze characterized most university-industry relationships in the past as being narrowly targeted to a rapid payoff. "What is new about this agreement," he said, "is the willingness of industry to support basic research without trying to direct or monopolize commercial rewards. The challenge to all of us, as universities and industries develop new relationships, is to protect the qualities of universities that are important to the future and that make us valuable partners with industry. This agreement is a great example of how to keep the priorities of the faculty intact. The medical school will continue to do what it does best - first-class research. Mallinckrodt will do what it does well - development of products for health care and medicine."
From left to right: Raymond F. Bentele, president and chief executive officer of Mallinckrodt, Inc.; Samuel B. Guze, M.D., University vice chancellor for medical affairs; Joseph Davie, M.D., Ph.D., principal investigator, professor and head of the Department of Microbiology and Immunology; and University chancellor William H. Danforth, M.D., at a press conference announcing the HMA research agreement.
Exercise Helps Hemodialysis Patients

by Jonathan Bunge

Lady Luck can often play the rogue. It’s bad enough to become ill, but what is even worse, patients are frequently advised to minimize or eliminate the primary source of seemingly innocent and simple pleasures — eating prime rib or quiche, playing golf or tennis, watching exciting sporting events or movies, hugging the family dog, or having a beer. Patients usually comply, at least for a time, with their doctors’ advice. And that, usually, is that.

But in the case of the clever 42-year-old hemodialysis patient and the doctor who remembered him, it was not a simple matter of advice and compliance. The hemodialysis patient was told to limit his intake of fluids. Most dialysis patients cannot urinate, so they are limited to only 12 to 16 ounces of liquid per day. Rather than eliminating one of life’s simple pleasures, a frosty mug of beer now and then, the clever patient moved to a house conveniently run in a sweatsuit every day to sweat off excess liquids, and he played racquetball twice a week. With this unique solution, he continued to enjoy his beer and improve his health. And thus began a story of blood, sweat and beer.

Andrew P. Goldberg, M.D., became acquainted with this man in 1975 while he was a research fellow in metabolism in the Department of Medicine at the University of Washington in Seattle. Two years later, when Goldberg came to St. Louis to become Assistant Professor of Preventive Medicine and Medicine at Washington University in St. Louis, he had not forgotten the Seattle man and his method of coping with his illness and the limitations it caused.

At Washington University School of Medicine, Goldberg met John O. Holloszy, M.D., Professor and Director of the Division of Applied Physiology. Holloszy told Goldberg of work demonstrating how exercise could help diabetic patients. Knowing that a diabetic’s metabolic problems are similar to those of a dialysis patient, Goldberg reasoned that what might have helped the Seattle beer-lover was exercise. Research was needed to test the theory. Goldberg read all the available literature and found that “the idea of exercise helping dialysis patients wasn’t all that unreasonable,” he said, “based on what already had been accomplished by exercise in diabetics, hypertensives and heart disease patients.”

With colleagues James Hagberg, M.D., Assistant Professor in the Division of Applied Physiology, and Herschel Harter, M.D., Associate Professor in the Renal Division and Director of the Cholesterol American Kidney Center at Barnes Hospital, Goldberg applied for a grant to study the effects of exercise on hemodialysis patients. Skeptical colleagues warned that dialysis patients are sicker than diabetics — perhaps too ill to exercise at all.

Medically, end-stage renal disease patients who require hemodialysis suffer several common complications caused by diseased kidneys. Their kidneys cannot maintain normal salt and water balance in the blood. Thus high blood pressure develops, placing dialysis patients at great risk for heart disease. Goldberg estimates that kidney disease accelerates by tenfold the development of atherosclerosis. Harter notes that the mortality rate for kidney patients is from 12 to 14 percent annually, and that heart disease is responsible for more than half of those deaths. Diseased kidneys also cannot filter phosphate which binds with calcium in the blood. The reduced amount of calcium stimulates the parathyroid hormone to such a high level of activity that bones form abnormally and bone disease can develop. Renal patients also have high triglyceride levels and low HDL cholesterol levels. Researchers have not yet determined how these problems with lipids develop, but they speculate that faulty kidneys somehow inhibit the enzyme, lipoprotein lipase, which helps regulate lipid metabolism. In addition to poor lipid metabolism, carbohydrate metabolism is another problem for dialysis patients because it may potentiate abnormalities in lipid metabolism. Also, the hormone mainly responsible for maintaining the hematocrit is produced in the kidney. Thus, it decreases as renal failure progresses. Furthermore, kidney failure itself reduces the survival of the red blood cells, leading to a decrease in hemoglobin and hematocrit, which reduces the patients’ maximum levels of oxygen consumption.

In addition to coping with the medical complications of renal disease, the patients face a variety of social complications as well. It takes approximately 15 hours a week for hemodialysis, plus transportation to and from the dialysis center. Many patients must often give up their jobs or careers, or find part-time employment which can be scheduled around their visits to the dialysis center. Some lose their ambition or interest in work, finding that part-time jobs pay little more than the minimum wage. Their expectations for their future diminish, and they come to accept living on disability payments, and hoping for nothing better in life.

Many probably do little more than sleep, dialyse and watch television.
"No wonder," Goldberg said, "that many kidney patients feel so miserable and become depressed." Physically and emotionally drained by the wide-reaching complications of renal failure, patients often need more than financial support, medication and dialysis if they are to live the best possible lives. For some, those who can find within themselves the motivation and discipline to exercise according to the program developed by Goldberg and his colleagues, exercise has now been proven to be beneficial.

Pioneering research into the value of exercise for dialysis patients began in 1977 with a $15,000 contract from the NIH Artificial Kidney Chronic Uremia Program for development of an exercise program. The research team included James A. Delmez, M.D., and Robert Carney, Ph.D. Goldberg selected his patients from among the 145 who dialyse at the Chromalloy American Kidney Center at Barnes Hospital. The center is one of the largest in the country. Typically, patients undergo dialysis treatment for approximately four hours a day, three days a week. During the process of hemodialysis, first used in 1960, the patient's blood is shunted through a dialysis machine's filtration fibers and is temporarily adjacent to a dialysate solution between some of the fibers. By the principles of diffusion, toxins not removed by the faulty kidneys pass from the patient's blood through the semi-permeable fibers and into the solution. Up to five pounds of water can also be removed during dialysis. According to Harter, a year of hemodialysis at the center costs $22,000, and home dialysis costs $12,000. For the more than 60,000 dialysis patients in America, Medicare expends between $1,000,000,000
and $1,500,000,000 each year. Renal disease ranks financially as America’s fourth leading health problem, and Medicare pays for 75 percent to 80 percent of the costs. Dialysis patients can usually find funds for treatment; sometimes more readily than researchers can find funds to test new methods of treatment.

Goldberg and his colleagues received less than a fourth of their original grant request and could begin their study of exercise for hemodialysis patients with only six patients. They were, Goldberg said, “people who were willing to try a new therapy that might help.” He told them, “We don’t know if this will help, but we do know that it has helped people with heart disease, hypertension and diabetes.”

The patients selected could not have any medical problems which could be aggravated by exercise, such as cardiac arrhythmias, hypertension, or congestive heart failure. They had to be on stable diets, medication regimens and dialysis schedules. And they had to have a strong desire to participate in the exercise program, working out regularly on the fifth floor track at the Irene Walter Johnson Institute of Rehabilitation at the medical school.

The original group included Charles Fruit, 31, who had been on hemodialysis for a year; Joe Starks, 32, who had been on dialysis for four years and had had two unsuccessful kidney transplants; Jim Hannenberger, 45, whose situation was basically identical to Starks; Bobbie Trice, who had hypertension and had been on dialysis for 18 months; Mike Donovan, 50, on dialysis for 12 years; and Kathy Tracy, 28, who had had kidney problems since the age of 11, had been on dialysis for three years and had had two unsuccessful transplants. After three months, Wiley Harris, Joanne Dubin and Barry Fraser, a 33-year-old insulin-dependent diabetic with renal problems and two unsuccessful transplants joined the program when Donovan and Trice received kidney transplants and dropped out.

Cardiovascular and metabolic tests confirmed that the patients could participate safely in the program. In addition to a complete examination and diagnostic cardiovascular stress testing by a cardiologist, baseline assessments were made of patients’ lipids and glucose metabolism. These measurements were repeated every three months, and routine blood tests were repeated monthly, including measurements of plasma hematocrit, hemoglobin, potassium phosphate, calcium and alkaline phosphatase. The patients’ diets and medications were thoroughly evaluated and maintained as needed. The patients also took psychological tests to determine the effects of exercise training on mood, participation in pleasant events, and psychosocial functioning.

The first group began exercising in April 1978, supervised by a physician, an exercise physiologist and an exercise technician trained in cardiopulmonary resuscitation. The first sessions, calisthenics and two five-minute periods on exercise bicycles, were designed to work the patients at 40 to 50 percent of their maximum oxygen capacities. When they were able to exercise at 60 percent of their capacities, they were then authorized to begin rapid walking, or walking and jogging. After six to eight months, all the patients who stayed in the program could walk or jog up to two miles per session at 70 to 80 percent of their maximum oxygen capacities.

After three or four months, doctors and patients both began to see encouraging results. Blood pressures of hypertensive patients had already dropped enough to allow the doctors to cut the dosage of antihypertensive medication in half. Because exercise had also induced a drop in serum phosphate levels, another medication, aluminum hydroxide, could be reduced. The patients’ metabolism had improved in several ways, without significant change in body weight or diet. In the first patients, and in those currently in the program, high triglyceride levels in the blood plasma fell by an average of 40 percent. High-density lipoprotein (HDL) cholesterol concentrations increased by 20 to 30 percent. Carbohydrate metabolism also improved: excessive amounts of insulin in the blood decreased by approximately 40 percent, and glucose metabolism improved by 25 percent. Concentrations of hemoglobin, which carries oxygen to body tissues, rose 30 percent and hematocrits increased roughly 25 to 30 percent. High blood pressure and abnormally high phosphate concentrations both declined, enabling patients to reduce or eliminate some medications.
Herschel Harter, M.D., director of the Chromalloy American Kidney Center.

Research exercise technician Robert Concannon checks Henry Baybo's blood pressure during an exercise session.
What all of these results could mean is a longer, better life for dialysis patients motivated to exercise. Two years ago, Goldberg received another grant, enabling the exercise research to be expanded to an additional 25 patients. The results being reported from the second group of patients are as optimistic as those from the original six. Goldberg hopes that the beneficial effects of exercise on metabolism will retard the development of heart problems. While only time can test this hope, psychological testing confirms that exercise quickly improves the patients' attitudes toward life. As they start to feel better, they also feel better about themselves and their treatment. As Harter says, "they become more compliant in taking their medication and attending exercise sessions." Said patient Barry Fraser: "I think one of the real benefits of jogging is that I've gained confidence in my ability to perform physically. When I go into something that is potentially demanding, I'm very confident about it. Jogging makes things a little more pleasant, more normal." Fraser found that exercise normalized his blood pressure and lowered his phosphate levels, allowing him to stop taking some medications. His hemato- crit increased from 30, without exercise and with medication, to 45 without medication after he had been on the exercise program for two years.

After nine months of exercise, Charles Fruit needed no blood pressure medicines and only a fourth of his previous aluminum hydroxide dosage. When his job required out-of-town travel, Fruit said he noticed an immediate rise in his blood pressure. "When I miss exercising for four or five days," he said, "my blood pressure goes up. After a few days back on the track, it goes down again." Kathy Tracy said that before she began exercising she could barely ascend a flight of stairs, but that after participating in the program, she found herself becoming more active and more interested in a job and a social life. Fifty-seven year old Dave Kneobel, who has been on dialysis for two years and exercising for several months, said that he notices a difference in his frame of mind since exercising. When on dialysis alone, he said he was "mentally bent." Henry Baybo, 67, had been on dialysis for almost two years. "It took the starch out of me," he said. "For a year I was practically sleeping my life away." A member of the present exercise group, Baybo said, "Exercise has given me more energy and the willpower to succeed on an exercise program. Patients who continue after the present contract expires. And that is unfortunate. 'I've never done anything that I think is going to have so significant an impact on people's lives,' he says of the exercise program.

Goldberg and Harter are the first to admit that exercise is not the answer for every dialysis patient. They estimate that only 30 to 35 percent of the dialysis population would have the willpower to succeed on an exercise program. Patients who have the motivation and discipline to adhere to the program seem to be, Goldberg said, "Those who were once athletes and can remember how good they felt after a hard workout. Others believe in what we say, want to feel better and really enjoy working." And although he regrets his conclusion, Goldberg said that "men tend to be more motivated than women, it seems. And they seem to be able to sustain their motivation longer."

But for those who adhere to the regimen, exercise improves their biochemical balances and their outlook. And the greatest thing about it," Holloszy says, "is that it's such a fundamental treatment. No drugs. No gimmicks. Just exercise. The patients who participate can control their own improvement to a great extent. They are involved in their own health care."

Hagberg, Goldberg and Holloszy are beginning an exercise program funded by the American Diabetes Program for adult-onset diabetics, many of whom have problems similar to dialysis patients. They hope that the diabetic patients will be more sure of their resolve to stick with exercise because they don't have the time restraints of dialysis patients, can usually find alternative methods of treatment more readily than dialysis patients and are not as sick. Goldberg is convinced that research results demonstrate that dialysis patients motivated sufficiently to adhere to a program of exercise can mitigate some of the cardiovascular and metabolic consequences of one of the world's most debilitating diseases. A glass of beer now and then is the least of their rewards.
Patient Joe Starks said: “Exercise makes you feel good about yourself. You find you can do more and don’t concentrate on the illness so much. You feel that if anything happens, you’ll be able to fight it off.”
Samuel A. Wells, M.D., has been appointed Bixby Professor and head of the Department of Surgery at the medical school. He will also be chief surgeon at Barnes Hospital and St. Louis Children's Hospital. The appointment was announced by Chancellor William H. Danforth, M.D., in August. Wells had been professor of surgery at Duke University Medical Center. He is best known for his transplantation of the parathyroid glands which produce parathormone. This hormone regulates metabolism of calcium and phosphate. Wells' research interests include the transplantation of endocrine tissues and the study of tumor markers. Wells is a 1961 graduate of Emory University Medical School. He served his internship and residency in internal medicine at Johns Hopkins University, was a surgical resident at Barnes Hospital and a clinical associate in the surgery branch of the National Cancer Institute. He went to Duke University Medical Center as a general surgery resident in 1966 and became assistant professor in 1970. He is a member of Alpha Omega Alpha, the American College of Surgeons, the Society of University Surgeons, the American Surgical Association and the American Society for Clinical Investigation.

Gerald Medoff, M.D., professor of medicine in the departments of Medicine and Microbiology and Immunology, and director of the Division of Infectious Diseases, Barnes Hospital, is principal investigator in a study of polyenes as biologic response modifiers. The study is being funded by a three-year, $900,000 research grant from the National Cancer Institute. Medoff will study the effects of polyenes on normal cells and tumor cells in culture. Polyenes are a group of approximately 100 agents which, while not anti-cancer agents, increase the therapeutic effectiveness of anti-cancer agents when administered in conjunction with them. Janina Brajtburg, Ph.D., assistant professor of medicine, will be a co-investigator. Frederick A. Valeriote, Ph.D., professor of radiology and head of the Cancer Biology Section of the Division of Radiation Oncology in the Mallinckrodt Institute of Radiology, is a co-investigator and will study the effects of polyenes on animal tumor models. Russell Little, M.D., professor of medicine in the departments of Medicine and Microbiology and Immunology, is a co-investigator. Little will study the effects of polyenes on the immune system. David Schlessinger, Ph.D., professor of microbiology and immunology and professor of medicine, is a co-investigator and will study the cellular effects of amphotericin B.

David Goldring, M.D., professor of pediatrics and director of pediatric cardiology at St. Louis Children's Hospital, has received a Fulbright grant for research he was conducting at Oporto University in Portugal on infantile atherosclerosis.

Stephen Sapareto, Ph.D., assistant professor of cancer biology in the Division of Radiation Oncology of Mallinckrodt Institute of Radiology, has been awarded a three-year, $215,000 research grant to study the effect of hyperthermia on the immune system. Sapareto and his co-investigators hope to provide new fundamental approaches to cancer immunotherapy and to increase the understanding of the interaction between the immune response and hyperthermia.

The Mallinckrodt Institute of Radiology has established the first hyperthermia treatment center in the midwest, on the sixth floor of the Barnard Free Skin and Cancer Hospital. It is one of ten such centers in the country and will focus on hyperthermia physics research and clinical hyperthermia patient treatment. Hyperthermia has been used successfully at Barnes Hospital and the Mallinckrodt Institute since 1977, in the treatment of cancers of the head and neck, breast and chest wall, and other soft tissue and subcutaneous tumors. The new center is funded in part by the annual Gridiron show of the Advertising Federation of St. Louis.
Richard P. Bunge, M.D., professor of anatomy and neurobiology, has been appointed to chair the Part I Anatomy Test Committee of the National Board of Medical Examiners. He will also serve as a member of the board's governing body which is composed of 76 members who represent the academic community, national professional organizations, state licensing boards, medical students, residents, the federal government and the general public. Bunge received his M.D. degree in 1960 from the University of Wisconsin Medical School in Madison. He was a postdoctoral fellow of the National Multiple Sclerosis Society under Dr. Margaret-Murray at Columbia University. He became an assistant professor of Anatomy in 1962, and associate professor in 1966. He joined Washington University in 1970, and is professor of anatomy and neurobiology, and Beaumont-May Institute of Neurology Scholar in Anatomy. He is a member of the American Society for Cell Biology, the Tissue Culture Association, the Society for Neuroscience, and is a vice president of the American Association of Anatomists.

Barry A. Siegel, M.D., professor of radiology and chief of the Division of Nuclear Medicine, Mallinckrodt Institute of Radiology, was selected for Fellowship in the American College of Radiology (ACR). The ACR's 18,000 physicians specialize in the use of radiation and ultrasound in the diagnosis and treatment of disease.

Felton James Earls, M.D., formerly assistant professor of psychiatry at Harvard Medical School, has been appointed director of the Division of Child Psychiatry. He succeeds E.J. Anthony, M.D., who retired from the directorship after 33 years of service. Anthony retains the Blanche F. Itleson Professorship in the Division of Child Psychiatry.

Earls will lead clinical and research activities centralized in renovated space in the Renard Building. "One of our goals," he said, "is closer integration of psychiatric services with the departments of psychiatry and pediatrics. With the division established within the medical center, we will achieve a more unified program of research, teaching and clinical work."

Earls received his M.D. degree from Howard University in 1967. He was a Fellow in Neurophysiology at the University of Wisconsin in Madison, an intern in pediatrics at Metropolitan Hospital, New York Medical College, and a resident in psychiatry at Massachusetts General Hospital in Boston. He was also a Josiah Macy, Jr., Faculty Fellow at Harvard, and a Medical Foundation Fellow at Children's Hospital Medical Center in Boston. His major research interests include the epidemiology of behavior disorders in children, measurement and classification of childhood psychiatric disorders, measurement of stressful life events, and the father-child relationship.

Shirley Sahrmann, Ph.D., assistant professor in the Program in Physician Therapy and in the department of Neurology and Neurological Surgery, was awarded the Lucy Blair Service Award early in the summer at the annual conference of the American Physical Therapy Association in Washington, D.C.

The American Cancer Society has awarded a $40,000 Institutional Research Grant to Washington University to fund promising new projects in cancer research by junior investigators. Researchers throughout the University can apply for up to $5000 to be used over one year to finance cancer-related projects. In the past, most of the successful applicants for the grants have been affiliated with the School of Medicine. This is the 28th time that the University has been awarded an Institutional Research Grant.

G. Lee Judy, executive director of the Child Guidance Clinic, has been admitted to Nomineeship in the American College of Hospital Administrators (ACHA). Nomineeship is one of three categories of membership through which affiliates advance after passing written and oral examinations and writing a thesis or case reports.

Research To Prevent Blindness, the world's leading voluntary organization supporting eye research, has made a $12,000 annual grant to Washington University School of Medicine. The grant marks the 22nd year of continuing financial support of the school's Department of Ophthalmology. Bernard Becker, M.D., professor and head of the Department of Ophthalmology, said that Washington University has one of the largest research programs in the world devoted to ophthalmology and visual science. Research projects include studies of glaucoma, ocular manifestations of diabetes, retinal biochemistry and other eye diseases.

Herschel Harter, M.D., associate professor of medicine and Director of the Chromalloy American Kidney Center, announced receipt of a $55,000 gift to support research in kidney and renal disease. According to Harter, the donation is the largest ever received by the kidney center to be used exclusively for research. The funds were raised by the people of Crestdwood, Mo., a suburb of St. Louis, to support hemodialysis treatment for a neighbor's son. Joseph Graff, Jr., began treatment at the center when he was 16 years old. He died last April at the age of 24. Students in public and parochial schools, scouting troops, churches and VFW and American Legion posts held bake sales, raffles, car washes, carnivals, dances and plays to raise the money.

Frederick D. Peterson, M.D., clinical associate professor of pediatrics, is the new president of the Washington University Medical Center Alumni Association. Other officers are: past president, August W. Geise, Jr., M.D., clinical professor of neurosurgery, University of Missouri; president elect Richard P. Parsons, M.D., clinical assistant professor of urology, Washington University; vice-president, Charles C. Norland, M.D., clinical assistant professor of medicine, Washington University; and secretary-treasurer John C. Herweg, M.D., professor of pediatrics and Associate Dean of the School of Medicine, Washington University.

Elizabeth M. Slattery, Ph.D., biological chemistry, has received a two-year, $30,000 grant from the Leukemia Society of America to support her research in virology, the study of how normal cell structure and cell life are disrupted by viruses known to cause cancer in animals.

James A. Ferrendelli, professor of pharmacology and neurology, and Seay Professor of Clinical Neuropharmacology in Neurology, was one of four Washington University faculty members to receive a special award “for outstanding commitment to teaching, and dedication to the intellectual and personal growth of students.” Chancellor William H. Danforth, assisted by Mark E. Mason, chairman of the Alumni Board of Governors, presented the faculty awards at Founders Day October 10. Ferrendelli joined the faculty in 1968 as a post-doctoral research fellow in the Department of Pharmacology. He and his associates are working to discover how and why specific drugs work and why patients react differently to the same drug. Currently, Ferrendelli is concentrating his clinical and research efforts on epilepsy. He received the 1981 American Society for Pharmacology and Experimental Therapeutics (ASPET) Epilepsy Award.

Andrew Jones, M.D., who had served his residency at Barnes Hospital in 1920-1921 and was a member of the faculty of the medical school from 1922 until retirement in 1965, died June 19 at his home in Okeechobee, Florida. He was 91. Jones and his wife, Gretchen, have endowed a professorship in neurology which is occupied by William Landau, M.D., co-head of the Department of Neurology and Neurological Surgery.

David M. Skilling, Jr., M.D. ('28), Barnes Hospital physician emeritus and medical school clinical instructor emeritus, died July 15 of kidney failure. A specialist in diseases of the chest, Skilling served the medical school from 1933 until 1973.

David N. McClure, M.D., clinical associate professor of pediatrics and member of the staff of Barnes Hospital, died July 3. A 1940 graduate of the University of Tennessee College of Medicine, McClure became affiliated with the Medical Center in 1950.

In Memoriam

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The President's Letter

By the time this issue of OUTLOOK reaches you, I will be well into my term as President of your Association for the year '81-'82. Since the last issue, I have had the pleasure on your behalf of presenting the annual Alumni Teaching Awards to Dr. Morton Smith of the Department of Ophthalmology, representing the clinical year, and Dr. Peter Corr of the Department of Medicine for the preclinical year.

Our annual party for the incoming Freshman class (the 83rd in the history of our school) was a huge success and is always a nice way to start these young people off on their journey through the school.

In the coming months your Executive Committee hopes to reinstitute some programs which we have curtailed in the past. The first is to again foster relationship between the incoming class and local alumni.

Hopefully we can restart, in conjunction with the School, the visitation and tour of the School by senior high school students and some of their advisors. We will continue to sponsor the visitation of pre-medical students from the University with local alumni in their offices. In addition, we will be reexamining the role of the Alumni Association in the broader context of its relationship to the University.

Plans are well under way for both the Annual Clinical Conference to be held in Kauai February 13, and the annual Class Reunions in the Spring. Much has changed over the past several years in the Medical Campus. For the first time in several years there are no construction cranes in the front of Barnes Hospital ... they have moved to the back. A new St. Louis Children's Hospital is rising from the depths of what was the old St. John's Hospital between the current Children's Hospital and Jewish Hospital School of Nursing; other new construction is in the works as new facilities of quality are started to match the already outstanding quality of facilities and personnel that make up the Washington University Medical Center.

Frederick D. Peterson, M.D. '57
President,
Medical Center
Alumni Association

Dean Steele and Virgil Loeb, M.D.
in Loeb's office. "We started as hematologists and later became interested in malignant diseases. Now, this new field of medical oncology is taking its own place in the SUL. I am in this field because of Moore."

Loeb decried the decline of regard for quality of teaching saying: "There used to be hero roles; today it seems different. In a sense, teachers today are not so highly regarded, and teaching is not seen as important as research." He said that clinical faculty can "add experience and a sense of proportion" to the students' clinical exposure.

Douglas Biggs, M.D. '72, was one of the St. Louis area alumni who participated in the program of spending a day or two with premedical students last Spring. Lee Ann Pixley, then a Sophomore at Washington University, accompanied Biggs on his typical tour of duty. Biggs is in private practice in internal medicine and cardiology, and approximately 80 percent of his practice is in cardiology. He teaches house staff at Jewish and St. Luke's hospitals. Biggs, the son of a physician, saw his first surgical procedure while standing on a stool and watching his father at work. He said it was an advantage to have insight into the daily routine of the medical profession and encourages premedical students "to try to get some insight" into it. Often, according to Biggs, students' experience is limited to books and laboratories. "There is a psychological impact in dealing with a lot of sick people all of the time, as you do in practice. There is the aspect, in practice, of not solving all of the problems, of merely delaying them. There is a lot of uncertainty, and often students don't fully realize that."

'S20s

Sol Londe, '27, is a clinical professor of pediatrics at UCLA School of Medicine.

'S30s

Francisco Canseco, '33, Laredo, Texas, is still in practice and "hopes to survive for the 1983 alumni reunion with the Class of '33."

George H. Curtis, '33, has retired from the Cleveland Clinic Foundation and the Euclid Clinic Foundation, but continues to do some laboratory work in mycology in Pinehurst, N.C. He also plays golf the year 'round.

William W. Herman, '33, Shaker Heights, Ohio, retired as assistant professor emeritus of pediatrics at Case Western Reserve Medical School. Dr. Herman volunteers six months a year teaching third-year medical students.

Morrison Schroeder, '33, is Chief, Surgical Clinic Section, Veterans Administration Medical Center, Wood, Wis., and professor of surgery, emeritus, at the Medical College of Wisconsin since July 1978.

Garvey B. Bowers, '34, Sun City, Ariz., has written a book entitled, My Brother Will Take The Blame. The book should be out this spring.

Ralph R. Jones, '34, Boise, Idaho, retired from general surgery June 1, 1980.

Alva E. Miller, '34, Tacoma, Wash., writes that he is "enjoying gardening, farming and volunteer work with the Army Hospital in Tacoma. Dr. Miller retired after 19 years as clinical
director of Western State Hospital. He previously had been Chief of Psychiatry and European consultant to the Surgeon General, U.S. Army Medical Corps.

Col. Paul C. Sheldon, '35, will try to make the 1985 reunion. He and his wife, Catherine, have been busy mountaineering, politicking and attending many medical, military and civic organizational affairs. Dr. Sheldon says that he "enjoys the mountains, and all of their children and grandchildren live in the mountain states."

Wallace E. Allen, '36, Modesto, Calif., has been the cruise physician aboard the S.S. Universe of Alaskan Cruises for the past four summers. Dr. Allen retired from his otolaryngology practice and spends the winters traveling.

Nathan R. Kahn, '36, is beginning his 10th year with the Parent-Child Study Center of Palm Beach County, Fla.

Albert Kaplan, '36, Mt. Pleasant, Iowa, published a paper entitled, "Phenothiazine induced Ketonacidosis" in the Iowa Medical Journal. He was the commencement speaker for the graduating class of physicians' assistants from the University of Iowa. Dr. Kaplan also wrote to tell us that "he will never forget WU, and the benefit I derived from the School is incalculable."

James D. Morrison, '36, Billings, Mont., was elected to the Board of Trustees and to membership in the Bishop Whipple Schools Corporation at the annual meeting held at Shattuck School on September 25, 1980. The Board of Trustees is charged with the responsibility of running Shattuck School, Saint Mary's Hall and St. James School, Faribault, Minn.

Alexander Silverglade, '36, Beverly Hills, Calif., has retired from practice.

Carl W. Smith, '36, Orinda, Calif., is "doing well." Dr. Smith had a triple coronary by-pass performed in February 1978.

Robert T. Tidrick, '36, is professor of surgery at Medical College of Ohio in Toledo.

Alfred A. Gelbhorn, '37, Durham, N.Y., is a visiting professor at Harvard School of Public Health 80-81, Department of Health Policy and Management.

David R. Wall, '37, Marquette, Mich., is the medical director of the Psychiatric Unit at General Hospital.

Joshua Jensen, '38, retired as Director of the Medical Division of the St. Louis Police Department after 30 years of service.

J. Robert Mangum, '38, Nampa, Idaho, recently returned from a ten month duty at Kudjip Hospital in Popua, New Guinea. He says it was a "very thought-provoking experience and I hope to return."

Anthony E. Piraino, '38, has retired. He and wife, Jane, love San Diego.

T. Eugene Ruff, '38, retired from practice in urology, but does some emergency room work in Doniphan, Mo. He also is active in PSRO in Popular Bluff, Mo.

Irving L. Berger, '39, writes that he is retiring to Boca Raton, Fla. and Cleveland alternately, and "will become a snowbird."

John R. Hall, Jr., '39, wrote to say that Grammy Award winner Christopher Cross of San Antonio is the son of the late Leo Geppert, M.D., '39. Colonel Geppert died Nov. 7, 1980. His son won his music awards in February 1981 for best new artist, best record, song and album of the year.

Edgar H. Keys, Jr., '39, is chairman of the ob-gyn audit committee at Blessing Hospital, Quincy, Ill.

Charles G. Obermeyer, '40, had a myocardial infarction in June. He has retired from practice for "awhile."

Ewald W. Busse, '42, associate provost and dean of medical and allied health education at Duke University Medical Center, has been named the Salmon Medalist by the New York Academy of Medicine. The Thomas W. Salmon Award recognizes a psychiatrist for distinguished service in the specialty and for contributions to the knowledge of mental disorders. Dr. Busse's past awards include the Menninger Award of the American College of Physicians, the Allen Award of the American Geriatrics Society and the Kleemeier Award of the Gerontological Society of America.

Charles E. Lockhart, '42, Springfield, Mo., was re-elected for the second three-year term as American College of Surgeons governor (Missouri) at the October 1980 clinical congress meeting in Atlanta.

William G. Reese, '42, has completed 30 years as chairman of the Department of Psychiatry and Behavioral Sciences at the University of Arkansas.

Jacob Kraft, '44, Kansas City, Mo., was elected secretary-treasurer of the American Academy of Police Medicine.

Virgil Loeb, Jr., '44, St. Louis, was visiting professor at the University of Hawaii and was shown the great hospitality of the Hawaiian alums, Richard Sakamoto, '33, Yasuyuki Fukushima, '43, John Ohtani, '49, George Goto, '51, Noboru Oishi, '53, Judd McNamara, '61, Albert Ishii, '46, and James Nishi, '57.

James O. Davis, '45, professor and chairman of physiology at the University of Missouri-Columbia, received a citation of merit in medicine today from the UMC Alumni Association. He was cited for his many contributions in renal physiology, hypertension and heart failure. As chief of the National Heart Institute's section of experimental cardiovascular disease in the laboratory of kidney and electrolyte metabolism, he demonstrated the role of the adrenal cortex in salt and water retention in congestive heart failure. In 1959 Dr. Davis discovered the specific renal hormone which stimulates aldosterone production. He is currently the president of the International Society of Hypertension and the circulation section of the American Physiological Society.

John T. Farrar, '45, Richmond, Va., is currently serving as chairman, subspecialty Board of Gastroenterology and member of the Board of Governors of The American Board of Internal Medicine.

Robert N. Webster, '46, Tallahassee, Fla., was elected chairman of the Florida State Board of Medical Examiners.

Robert A. Huckle, '48, was elected to serve as treasurer of the Mineral Area College in Flat River, Mo.

Frank B. Norbury, '48, is president of the medical staff of Passavant Area Hospital, Jacksonville, Ill. for 1981.

George S. Woodard, '49, was elected president of the medical staff of Maricopa County General Hospital, Phoenix for the period Jan. 1, 1981 to Dec. 31, 1982. He also is chief of orthopaedic service.
70-physician HMO in Southern Illinois. Dr. Markham is a member of a multispecialty clinic with a staff of 35 and a very active heart program.

Col. Donald H. Tilson, '55, Vancouver, Wash., is chief of orthopaedics at the Bess Kaiser Hospital, Portland, Oregon.

Robert G. Zeitler, '55, Tarpon Springs, Fla., is director at Anclote Psychiatric Center. Dr. Zeitler has two daughters in college, one is a freshman at WU, and another in law school, plus a fifth-grader at home.

George H. Klinkerfuss, '56, Springfield, Mo., received the Governor's Award for physicians who did the most for employment of the handicapped in 1980.

James C. Lowe, III, '56, Detroit, is chairman of the Internal Medicine Division at Henry Ford Hospital, West Bloomfield Center.

Irving Weigensberg, '56, Peoria, Ill., director of Methodist Medical Center's oncology center, has been named by Gov. James Thompson to the Advisory Board of Cancer Control. The board advises the Department of Public Health and the governor of possible measures to reduce the deaths from cancer.

Ralph H. Harder, '57, Jackson, Calif., is chief-of-staff of the Arnedon County Hospital and a member of the board of directors, California Academy of Family Physicians.

Byron J. Masterson, '58, has accepted a position as Chairman of the Department of Obstetrics and Gynecology at the University of Louisville School of Medicine effective July 1981. Dr. Masterson is the recent recipient of the Maude Dee Porter Memorial Chair in Obstetrics and Gynecology awarded by the Ogdon Surgical Society. His recent surgical text, "The Manual of Gynecologic Survey," is now being translated into Spanish, Italian and German.

Ronald K. McGregor, '58, is chairman of the Department of Anesthesiology, Decatur Memorial Hospital, Decatur, Ill., for 1981-1982.

Richard D. Aach, '59, Baltimore, is now physician-in-chief of Sinai Hospital and professor of medicine at Johns Hopkins School of Medicine.

Albert Oberman, '59, has been elected to Fellowship in the American College of Cardiology by the Board of Trustees at the meeting in Chicago last October.

Phillip E. King, '61, Johnstown, Penn., completed residency at the University of Kansas Medical Center in 1979 and now is board certified in diagnostic radiology.

David Danoff, '62, was elected chief of surgery at the North Memorial Medical Center, Robbinsdale, Minnesota.

Bruce L. Dunn, '62, is the president of the Santa Cruz California Medical Society.

Harvey S. Kantor, '62, N. Chicago, has been cited in Who's Who In America, Midwest Division.

John W. Conklin, '63, is director of radiology at St. Anthony's Hospital, Alton, Ill.

Lawrence M. Unger, '63, is the director of clinical laboratories at the Jewish Hospital in Cincinnati.
Cpt. J. Raymond Fletcher, MC, USN, '64, was elected into membership in the Society of University Surgeons. The society is limited to 250 active members, 45 years of age and under, representing 124 medical schools. Captain Fletcher is the only naval officer holding membership in this society and is the second to receive such recognition.

Carolyn B. Robinowitz, '64, Washington, D.C., was elected director of the American Board of Psychiatry and Neurology and re-elected to the board of directors, Council of Medical Specialty Societies. Dr. Robinowitz currently is the deputy medical director and director of the Office of Education, American Psychiatric Association.

Jeannie J. Kinzie, '65, Grosse Pointe, Mich., was appointed to the NIH Radiation Studies Section for 1981-1985.

Stephen N. Morris, '65, was appointed associate professor of medicine, Indiana University School of Medicine.

Neill Valdes, '65, Carbondale, Ill., is now president of the Jackson County Health Department. He continues private practice at Carbondale Clinic and teaching at Southern Illinois University School of Medicine as assistant professor of surgery.

Morris W. Pulliam, '66, joined the Department of Neurosciences of Quain and Ramstad Clinic, Bismarck, N.D.

Arnold E. Katz, '67, Wellesley, Mass., has been promoted to associate professor of otolaryngology at Tufts University School of Medicine.

Cdr. David G. Kemp, '67, was promoted to Captain, USN. He is currently assistant chief of internal medicine at the Naval Regional Medical Center, Portsmouth, Va.
John W. Barr, '69, has a private practice in Oakland, California, and is on the clinical teaching staff at the University of California, San Francisco.

Robert E. Groble, '69, Jacksonville, Fla., has joined a multidiscipline psychiatric group.

'70s

Joann L. Data, '70, is employed by Burroughs-Wellcome in the Clinical Research Division as a senior clinical research scientist.

Bruce D. Fisher, '70, is chief of infectious diseases, Muhlenberg Hospital, Plainfield, N.J., and clinical assistant professor, Department of Medicine, College of Medicine and Dentistry of New Jersey-Rutgers Medical School.

Toby L. Simon, '70, Albuquerque, N.M., became a fellow in both the College of American Pathologists and the American College of Physicians.

Robert A. Laibovitz, '71, is in private practice of ophthalmology with a subspecialty in retinal macular and vascular disease. Dr. Laibovitz was recently appointed assistant clinical professor of ophthalmology at the Texas Tech Health Science Center in Lubbock, Texas.

L. Michael Glode, '72, Aurora, Colo., has been appointed assistant professor of medicine at the University of Colorado Medical Center.

Mary P. Glode, '72, is co-director of infectious diseases at the Denver Children's Hospital. She also is an assistant professor of medicine at the University of Colorado Medical Center.

William V. Roberts, '72, has been named medical psychiatry director at St. Mary's Community Hospital, Walla Walla, Washington.

Robert F. Scheible, '72, was named chief of the Department of Radiology at Incarnate Word Hospital in St. Louis.

Stewart F. Cramer, '73, is an associate pathologist, Rochester General Hospital and clinical assistant professor of pathology at the University of Rochester School of Medicine.

Barbara Mandell, '73, has a practice in internal medicine in Modesto, California. Dr. Mandell teaches at Scenic General Hospital, a county hospital which has teaching facilities for a family practice residency on a regular basis. She was named vice chairman of the Department of Medicine at Doctor's Hospital, Modesto, and also is on the staff of both City and Memorial Hospitals and the board of directors of the Women's Resource Center.

Dr. Mandell informs us that she has two children, David, born February 5, 1978 and Iris, born September 14, 1979.

Joel M. Depper, '74, San Diego, writes that he and wife Linda had their first child, a son born October 4, 1980.

Joanne P. Cornbleet, '75, is a clinical pathologist at the Stanford University Hospital Laboratories. She and husband Harry have an eight-year-old daughter named Jennifer.

James M. Hudson, '75, Alton, Ill., is in private practice in ophthalmology. Dr. Hudson is a member of the board of directors for the Family Services and Visiting Nurses Association.

Michael J. Isserman, '75, St. Louis, became board certified in ophthalmology last October.

C. Leon Partain, '75, associate professor of radiology and biomedical engineering, has been named Director, Radiology Science Division at Vanderbilt University School of Medicine.

Mark T. Schreiber, '75, Virginia Beach, became a partner and stockholder in Hearst, Fischer and Schreiber, Ltd., psychiatric associates.

Richard P. Wenham, '75, has opened a practice in gastroenterology in Colorado Springs.

Dr. Douglas is a staff anesthesiologist.

Michael S. Myers, '76, is working as an internist at the Wilson Health Center in Rochester, N.Y.

John F. Seaworth, '76, completed his chief residency in medicine last June. He began his cardiology fellowship at Duke University Medical Center in July 1980.

Jesse W. Adams, '77, Bethesda, Md., informs us that he will return to WU as a hematologynecology fellow in 1982.

Glenn S. Golobin, '77, entered private practice with the Miller Medical Group, the second largest in Tennessee.

Scott and Pam Greenwood, '77, are fellows in cardiology and rheumatology at the University of Michigan Hospital, Ann Arbor.

Barbara M. Seaworth, '77, completed her internal medicine residency last June, and began an infectious disease fellowship at Duke University Medical Center.

Former House Staff

Andrew L. Carney, Oak Park, Ill., delivered a paper entitled "Diagnostic Differences in Limbikinetics," at the American Psychiatric Association meeting in New Orleans.


William Platt is chief of pathology at the U.S. Public Health Service Hospital, Baltimore, and lecturer in pathology at Johns Hopkins Medical School.

Kevin Prankinoff is assistant professor of urology at State University of New York at Buffalo.

H. Robert Willis, St. Louis, wrote that he has been "a born again Christian for six years. Halleluiah!"
Roger Warnke, '71, pathologist of Stanford University, Calif., first recipient of Benjamin Castleman Award. Chicago, March 2, 1981, annual meeting of the International Academy of Pathology's U.S.-Canadian Division.
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Frederick D. Peterson,
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President, Washington University Medical Alumni Association

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Send me complete details of the 1982 WASHINGTON UNIVERSITY MEDICAL CENTER ALUMNI ASSOCIATION ANNUAL CLINICAL CONFERENCE IN KAUAI.

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CITY ___________ STATE ________ ZIP
Suture Self!

Rumor has it that primitive M.A.S.H. units enlisted the soldier leaf-cutting ant of the Amazon. The ants were placed along a cut or a gash so that their huge pincers would bite down and close the wound. Then, their bodies would be broken away, and the head with pincers would remain to act as a suture. The photo and the folklore are from Paul Philip Sher, M.D. ('65), director of clinical laboratories at University Hospital and associate professor of clinical pathology, New York University Medical Center. Sher wrote that the "soldier leaf-cutting ant has pincers designed to defend the ant colony from attack by other ants or predators . . . . The story about the use of these ants as 'sutures' . . . . is something that I have not been able to reference."

Alumni, alumnae, faculty and students are invited to submit photographs for use on this page in future issues of OUTLOOK. Color slides are acceptable even though the printed page is black and white. If you have any questions, contact the editor.