Early spring sunshine highlights the branches of a barely budding tree as the first warm day of spring brings out the lunch-time picnickers. The scene is of the front yard of the Euclid Avenue entrance to the School of Medicine.
January 10, 1982 marked the fortieth anniversary of the activation of the 21st General Hospital, the World War II medical unit affiliated with Washington University and Barnes Hospital. Last September veterans of the unit gathered in St. Louis for a reunion. Three days of parties, banquets and meetings ensued, providing a fine opportunity to renew old friendships and to retell old war stories. The lasting esprit de corps of the 21st veterans reflects the fact that theirs was an effective unit and, in retrospect, a lucky one as well. Between 1943 and 1945 it made an impressive contribution to the Allied war effort in North Africa and Europe. During this period it operated from some rather unusual locations, including an Algerian spa, an Italian fairgrounds, and a French psychiatric hospital. By war's end, 2,200 people had served with the unit which had treated 65,000 patients. The 21st was one of the largest troop hospitals and the most decorated medical unit in World War II.

The 21st was the successor to a World War I medical unit, Base Hospital 21, the first American military hospital to serve in France. Members were drawn from the staffs of Washington University School of Medicine and Barnes Hospital in 1917. The unit was stationed near Rouen, in northern France. After returning to the United States in 1919, Base Hospital 21 was designated a Reserve Officer Corps unit of the General Hospital category.

In 1939, when war broke out again in Europe, the executive officer of the reserve unit was Lee D. Cady, M.D., a 1922 graduate of Washington University School of Medicine and member of the clinical faculty in medicine. On his own initiative, he visited the War Department in Washington, D.C. to inquire whether the 21st would be called up were the United States to enter the war. This was no certainty at the time: a majority of Americans, indeed, opposed involvement in the new overseas conflict.

During the subsequent two years, however, the situation changed radically. The War Department drew up mobilization plans which included Reserve Army general hospitals. By late 1941, the United States had become deeply, if still unofficially, involved in supporting Great Britain against Germany. The Japanese attack on Pearl Harbor on December 7, 1941 led quickly to official declarations of war against all the Axis powers. By the end of December, mobilization orders were sent to reserve unit officers throughout the country.

Dr. Cady, now lieutenant colonel, received the word on December 24. On January 10, 1942, he and an advance party of other medical officers from St. Louis travelled to Ft. Benning, Georgia. Two days later, the unit was activated as the 21st General Hospital. The ranks were increased by officers and enlisted men already in training at Ft. Benning. On February 1, they were joined by fifty-five nurses from Barnes Hospital and the Washington University School of Nursing led by Lt. Lucille S. Spalding. Col. Robert E. Thomas, a Regular Army medical officer, was named as unit commander on February 15.

Several months of training followed. There was reason to believe that the 21st would be sent to serve in the South Pacific. But before any marching orders were received, important changes were made. Several cadres of officers and enlisted men were transferred from the 21st to start new training units. One such directive sent twenty officers to Ft. Bragg, North Carolina, where they formed the 21st Station Hospital. This unit, which included several Washington University physicians, eventually served in Egypt, Ethiopia, and Iran. Before the 21st General Hospital departed...
The 21st General Hospital in World War II

from Ft. Benning, Col. Thomas was replaced as commander by Col. Charles F. Davis. Finally, orders were received indicating that the hospital would be sent to the European theater, rather than to the Pacific.

The 21st left Ft. Benning October 13, 1942, bound for a staging area at Camp Kilmer, New Jersey, near New York City. On October 20, the unit embarked from New York harbor aboard the S.S. Mariposa. The ship carried mainly combat troops, but, besides the 21st, there were also five other medical units on board. During most of the crossing, no convoy protection was afforded the Mariposa, despite imminent danger of attack by German submarines. Following a zigzag course through the rough waters of the North Atlantic, the vessel managed to reach its destination, Liverpool, England, in safety. But other ships, including some loaded with medical supplies, were sunk by the enemy.

From Liverpool, the 21st was sent by train and truck to a billet in a suburb of Birmingham, Pheasey Farms Estate. The stay in England provided an inauspicious beginning to overseas duty. When the unit arrived in Birmingham, the city was so wrapped in fog that even the British Army guides lost direction. The weather remained poor. Rations were scarce. Perhaps most discouraging, it was learned that supplies intended for the 21st known to have reached Liverpool were distributed to other medical units.

While the unit was in England, plans were announced that the hospital would be a part of “Operation Torch,” an Allied offensive to establish control of North Africa. The 21st was transported back to Liverpool. There, with many other units, the personnel boarded the S.S. Monarch of Bermuda. It was more than a little disconcerting to find that the vessel had suffered torpedo damage ten days earlier. Nevertheless, declared to be still seaworthy, the Monarch sailed on November 27 as part of the “Operation Torch” convoy.

The convoy rounded Ireland and ventured again through waters prowled by German submarines. Safely passing along the coasts of Spain and Portugal, the ships took brief refuge at Gibraltar. From there, they crossed unscathed to Algeria and landed at the Port of Mers-el-Kebir, near Oran, on December 6. Algeria had newly come under Free French control and thus its strategic resources were at Allied disposal. But the war was not far removed, for the German Afrika Korps, under Rommel, still held neighboring Tunisia.

The 21st bivouacked at Oran. An American evacuation hospital already on the spot assisted the new arrivals. But there were more frustrations in store. The normally sunny Algerian coast was that week pelleted by heavy rains. The downpour turned the field where the hospital personnel camped into acres of mud. One veteran military man summed up his experience in verse:

I've seen mud on U.S. racetracks
That stopped horses near the wire.
I've seen mud on Flanders poppies
That stopped soldiers under fire.
I've seen mud in some U.S. camps
That would flatten beast or man.
But I've never seen the brand of mud
That's formed in old Oran.

Flash flooding one night hit the terrain where the nurses' tents were pitched. The nurses reported seeing clothing and gear swept away in the swift, sudden rush of water.

The picture brightened at last late in December, when the 21st was transported into the interior of Algeria. The hospital was assigned to establish operations at a hot water spa. The place, called Bou Hanifa, was located at an oasis in the rocky desert plateau sixty miles south

The first assignment, Bou Hanifa, Algeria, December 1942 to November 1943.

Information and pictures for this article are from the records of the 21st General Hospital in the Archives of the Washington University School of Medicine Library.
of Oran. The largest building in Bou Hanifia was the Grand Hotel, which rose out of the desert like an art deco mirage. It was chosen to house the main medical and surgical functions. Several smaller hotels in town were also taken over for hospital uses. The hot spring water pumped into the baths of these establishments was particularly welcome.

Inevitably, there was friction at first between the American newcomers and the French civilian population. There were also difficulties and uncertainties in dealing with the native Algerians. One touchy problem, from the American point of view, was an immediate need to raise the level of sanitation at most spa facilities. For weeks, members of the 21st scrubbed and scoured buildings and laid down new plumbing and sewage lines. In the process, hospital cadre learned that they had to be diplomats as well as healers. They gradually won the trust and cooperation of local leaders. It helped immensely, of course, that the 21st brought "business" to the war-isolated resort and, thereby, revenue and employment to the residents of the spa village.

A solitary first patient was admitted December 24. Hospital functions began in earnest on January 2, 1943, when 472 beds were ready. The supply shortage was now critical. Makeshift instruments were used in the first days of surgical operations. Medicines and bandages were administered very sparingly. The problem was gradually alleviated as more and more Allied convoys reached the Mediterranean Base Section. But 21st officers were at times so impatient as to risk court martial by making unauthorized "scrounging" expeditions to the depots at Oran.

Col. Davis was unexpectedly transferred to another unit in late January. Left to assume temporary command was Lt. Col. Cady. Weeks went by without a replacement for Davis named. Ultimately, with the help of friends higher up, Cady was promoted to colonel and given permanent command of the hospital. Cady revealed a considerable talent for public relations. For one thing, he knew how to exploit Bou Hanifia's resort facilities fully. Hotel kitchens were encouraged to do their utmost to embellish the dull Army chow. Ranking visitors, even those needing no medical or dental treatments, were welcomed to the spa. As souvenirs, they were given certificates naming them "Honorary Arabs of Bou Hanifia." The hotel roof gardens were opened up. Dances were held. Nurses were permitted to send home for their party dresses. Festivals were arranged to which the native population of the spa village was invited.

All the efforts to boost morale and to cement good relations paid off in terms of hospital efficiency. Bed capacity steadily increased. When all appropriate spaces in the hotels were full, temporary buildings were erected to house additional wards. A rehabilitation section was established for special treatment of the wounded.

Battles in Tunisia in the spring of 1943 led to capture of thousands of German and Italian troops. Up to 200 of the enemy wounded were treated by the 21st at one time. Handling of prisoners of war necessarily increased the complexity of military operations at Bou Hanifia. Among the units called to help were an Army Engineer Regiment, several military police Platoons, a company of Algerian guards, and four Italian POW companies.

At its largest while in Algeria, the 21st had over 4,000 beds. (In comparison, in 1980 Washington
The second assignment, December 1943 to September 1944, the fairgrounds at Naples.

University Medical Center had 1,901 beds.) The 21st staff was pressed to handle casualties from the American and British forces which invaded Sicily in July. The number of patients gradually began to decrease once the Allies conquered all of Sicily and launched attacks on the Italian mainland. In November, the order came to "cease construction" at Bou Hanifia and restore facilities of the spa to their prewar functions. The Dental Service attached to the 21st had performed 21,299 treatments.

With hospital equipment packed into more than three thousand crates, the unit gathered again at Oran. The destination this time was Naples, Italy. The nurses sailed December 4 on the hospital ship Shamrock. The remainder of the unit boarded the British transport vessel HMS Cameronia two days later. Col. Cady found himself to be the ranking American officer on board and thus in charge of all U.S. personnel during the voyage. They numbered four thousand, including officers, enlisted men, W.A.C.'s and Italian POW's.

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The Surgical Service was set up in the "Albania" building, its roof patched with plexiglass and gobs of asphalt. A heroic mural of Mussolini, peppered now with bullet holes, looked down on operations. A recovery ward was established in a chamber where decoration ironically lauded the prowess of the Italian soldier. Tents were erected in a courtyard to shelter the officers' mess. Nearby was the "Libya" building, housing hospital headquarters. The fairgrounds had included a small zoo. A barn erected for giraffes was allotted to the enlisted men's

Maj. Thomas H. Burford. The Neurosurgical Service under Maj. Henry G. Schwartz had developed techniques in emplacement of acrylic skull plates and nerve suture. New methods were also devised in orthopedics and plastic surgery. Toward the end of operations at Bou Hanifia, a thousand-bed Venereal Disease Section had been established. The Dental Service attached to the 21st had performed 21,299 treatments.

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The Southern Italian coasts were still within range of German bombers and were frequently under their attack. Once again, luck was with the 21st and the Cameronia arrived at Naples unharmed. Cady acquitted himself well as a troop commander.

Shortly before the war began, the Mussolini regime had opened a fairgrounds outside of Naples. Its theme was the promotion of Italian colonies. The facilities included exhibit halls for each of the subjugated territories. After the Allies took control of Naples, the fairgrounds was designated a medical center, to be run by several units, including the 21st. Near the fairgrounds was another tourist attraction, Terme di Agnano, like Bou Hanifia a hot water spa. There, where Italy's wealthy once took the cure, the officers of the 21st were billeted.

After the relative comforts of Bou Hanifia, Naples inflicted substantial hardships on the unit. Fierce fighting continued only a short distance away. Cold rains drenched the region throughout December and January. Many fairgrounds buildings were badly bomb damaged. Tents were used to shelter many of the sick and wounded while repairs were being made. During these difficult days, members of the unit were themselves hospitalized with upper respiratory infections and fatigue. But, despite all these problems, the hospital was able to regain operating efficiency within days of arrival at the fairgrounds.
In January 1944, Allied forces invaded the central Italian coastline at Anzio. In the weeks that followed, attacks were launched on German positions in the mountains, notably at Cassino. Trainloads and shiploads of casualties from these engagements, as many as three hundred at a time, were brought to the hospital, straining staff and bed capacity to the utmost. In addition, the unit was called upon to help stem a typhus epidemic in Naples. The most critical period of service to the Italian campaign came in June, with battles leading to the fall of Rome. Bed capacity of the 21st at that time reached three thousand.

The success of the D-Day invasion of Normandy (June 6, 1944) permitted Allied offensives in southern France in August. By September, territory as far north as Lorraine had been liberated from German control. Orders were sent for the 21st to follow and establish operations anew on French soil. On September 25, the unit pulled out of the Naples facility. Just short of 15,000 new patient records had been added to hospital statistics. The 21st was recognized as one of the finest medical units in the European theater, and not only by Americans. For assistance to the Free French forces, Gen. Alphonse Juin awarded the 21st French unit citation.

Red tape delayed efforts to move the hospital out of Marseilles for several days. Finally, orders came through giving the 21st equal priority with ammunition bound for the front lines. A hospital train for personnel and three freight trains were required to carry the unit northward. On arrival in Mirecourt, several convoys of trucks met the trains to take the 21st to Ravenel Hospital.

On October 21, less than a month after the 21st had left Naples, it was accepting patients anew. The psychiatric hospital buildings had been in the final stages of construction when the war began. They were not damaged during the German occupation. Now, with finishing touches by American engineers, the facility was admirably suited to the needs of the 21st. It boasted spacious wards and central heat. By November, over three thousand patients were being treated daily.

The fighting grew intense as the lines edged closer to the German border. As increasing numbers of casualties were brought to the hospital, it was sometimes necessary to treat POW's alongside Allied service-men. Understandably, the staff was concerned about possible outbreaks of violence in the wards. This situation was alleviated to a degree early in December, when part of the staff of a German hospital was captured at Strasbourg and sent to Ravenel. These physicians and nurses were put to work caring for their own.

The 21st endured perhaps its hardest test in late December, during the "Battle of the Bulge." The surprise German counteroffensive breached Allied lines in Belgium and Luxembourg and, for ten critical days, threatened a new invasion of France. Plans to evacuate


The third assignment, October 1944 to September 1945, Ravenel Hospital, Mirecourt, France.
the hospital were hastily drawn up. On December 26, the buildings at Ravenel were strafed by enemy planes; one bomb hit the grounds, causing slight damage.

That very day, it turned out, the German drive was stopped. The hospital, of course, accepted a great many of the wounded from the battle. The pressure continued as the struggle crossed the border into Germany itself. In January 1945, the 21st expanded to 4,040 beds. On January 7, the hospital treated its 50,000th patient. The facilities at Ravenel were used to their fullest extent. Sick and wounded were cared for even in the attics of buildings. Ambulatory patients were pressed into service on the wards and in the hospital headquarters.

February 1945, brought a marked measure of relief to the exhausted staff of the 21st. With front lines now east of the Rhine River and German resistance to Allied assaults collapsing, fewer wounded were brought daily to the hospital. The patient census dropped below two thousand that month.

With the end of the war in sight, the multinational character of Allied forces on the Western Front, as viewed from the 21st, became apparent. Besides Americans, patients included Britons, Canadians, Poles, Yugoslavs, Italians and Germans in sizable numbers. Four Italian sanitary companies served on the grounds of Ravenel. There were enough talented musicians among the German POW ranks to form a fifty-five piece symphony orchestra. The orchestra enlivened special ceremonies at the hospital and, in smaller ensembles, played in the wards and mess halls.

The long-awaited end of the war in Europe, V-E Day, came May 8. Victory brought a new variety of challenges to the hospital command. The number of patients dwindled, but many severely wounded remained for treatment. Meanwhile, the medical and nursing officers were needed for other assignments and were rapidly transferred out of the unit, creating staffing shortages. Col. Cady and his remaining cadre struggled to maintain hospital services despite daily changes in the duty roster.

On September 20, the U.S. Army bestowed its meritorious Service Unit Plaque on the 21st. The citation read, in part: "The professional skill and tireless devotion to duty demonstrated by the personnel of the 21st General Hospital were in keeping with the highest traditions of the Armed Forces of the United States." The award, it is true, came too late to be distributed personally to most hospital personnel. The remaining staff at Ravenel by this date had been relieved of medical duties and were packing for the voyage home.

Final statistics compiled by the Unit were impressive. They indicate that the 21st admitted 65,503 patients in its nearly three years of overseas service. The total surgical operations numbered 33,440. Dental treatments amounted to 69,375. The hospital laboratories had run 246,805 tests. Blood transfusions given were 11,258. The Convalescent and Rehabilitation Section treated 21,175 patients. In three years, over 2,200 persons had served as members of the 21st.

After a short period at a staging area near Marseilles, Col. Cady and his staff boarded the victory ship Westminster, which sailed October 28. The ship landed at Boston November 7. The members of the 21st were taken to Camp Myles Standish, given an official welcome, and reoriented for their imminent return to civilian life.

The 21st ceased to exist as an active military unit at this point.

Research Update: Studying Isolated Systolic Hypertension

In western industrial societies, systolic blood pressure generally rises with age. Isolated systolic hypertension is a common condition among the elderly. It is due to arteriosclerosis of the large blood vessels which results in their losing their elasticity. Systolic Hypertension is associated with markedly increased mortality from cardiovascular disease and stroke. In addition, systolic hypertension may be associated with senile dementia. The National Heart, Lung and Blood Institute, in conjunction with the National Institute on Aging, is conducting a study to determine the feasibility of a full-scale treatment trial of elderly persons found to have isolated systolic hypertension.

Washington University is one of five clinical centers throughout the United States participating in this study. H. Mitchell Perry, Jr., M.D., Professor of Medicine and Director of the Hypertension Division at the St. Louis Veterans Administration Medical Center is the Principal Investigator for the St. Louis clinic of the Systolic Hypertension in the Elderly Program (SHEP). He has long been a leader in research in hypertension. Greta H. Camel, M.D, is Co-Principal Investigator. As fellows in the Hypertension Division at Washington University, Drs. Perry and Camel were actively involved in the first effective drug treatment for hypertension. At that time, the Hypertension Division, headed by Henry A. Schroeder, M.D., began successfully to treat patients with the more common and better known diastolic hypertension. This type of hypertension is caused by constriction of the small arteries throughout the body. Why constriction occurs remains unknown. Patients were given a combination of two then-very-new antihypertensive drugs known to lower blood pressure temporarily. The result of combining the two drugs was dramatic. Previously uncontrollable very severe hypertension was controlled as long as patients took their medicine. Rapidly fatal hypertension was thus held in abeyance, and patients who would have died in months survived for decades. Most recently, Perry was a member of the Joint National Committee for Detection, Evaluation and Treatment of Hypertension set up by the National Institutes of Health. This committee was responsible for establishing currently accepted guidelines for treating hypertension. Perry also serves as Physician-Coordinator for Hypertension for the United States Veterans Administration.

Perry and Camel feel that the SHEP study of isolated systolic hypertension is extremely important. It could well be that treatment of systolic hypertension with drugs that are already available would not only lengthen life, but would also delay the onset of senility. At the present time, however, there is no information, which indicates that treatment is beneficial. "We do know that elderly patients with systolic hypertension are at markedly increased risk," Perry said, "but we do not know whether treatment can lower those risks — and if so, how much. Only a controlled clinical trial can provide the needed information on the effects of treatment." Such a study has been in the planning stages for years. The current Feasibility Trial is designed to test whether a sufficient number of elderly people with systolic hypertension can be recruited for such a study and whether they can be satisfactorily followed for the required time. The enrollment phase of the Feasibility Trial which began in October 1980 will be completed by July 1982. If feasibility can be established, the full scale study is expected to begin in the fall of 1983. It will require a total of about 4,000 elderly participants nationwide and is expected to be completed in 1988.

The current feasibility trial needs 100 participants from the St. Louis area who have isolated systolic hypertension, are over the age of 60, and agree to be in the random, double-blind program and followed for one to two years.

The SHEP study utilizes an innovative data processing system for clinical trials. Data is transmitted from clinical centers to the coordinating center at the University of California through a direct terminal-to-memory bank communications system. Data critical to recruitment, therapeutic efficacy, safety, side effects, quality of life, and mentation are being collected for future statistical analysis of the results.

Many individuals, social agencies and organizations for older persons are helping on a daily basis to reach the older community. McDonnell Douglas Corporation and Monsanto Corporation have helped recruit subjects for the study, offering publicity and help in reaching retirees. More subjects are needed, however. Anyone who is interested in the study can receive further information by calling 314-533-1282.
H. Mitchell Perry, Jr., M.D.
A Line with the Past;
A Rap with the Future

by Casey Croy

In the Evoked Response Audiometry Laboratory at St. Louis Children's Hospital, the hearing of a sleeping infant is tested. The test is controlled and reported in an adjoining room.
A small group of mavericks back in the 1960's bolted from the herd of computer experts in industry and aerospace who were solemnly pronouncing "the economies of scale," and bucked the trend toward large data centers with huge computers shared by throngs of users. The mavericks dared to think small. In so doing, they developed what has been called the world's first programmable personal computer, became ostracized from the high-tech corral of Massachusetts, and headed west to Missouri — to Washington University. What began at the Massachusetts Institute of Technology and came to full fruition at Washington University was both the ancestor of today's generation of minicomputers and the nucleus of what Lewis J. Thomas, Jr., M.D., associate professor of anesthesiology, physiology and biophysics, and director of the Biomedical Computer Laboratory (BCL) calls "our style of using dedicated computers in biomedical research."

Two of the mavericks were Wesley A. Clark and Charles E. Molnar, working at MIT's Lincoln Laboratories to develop a small, programmable, personal computer for use by individual medical researchers in their own laboratories. As is the wont of computer people, they named their little computer with an acronym — LINC, for Laboratory Instrument Computer. LINC could be moved into a scientist's lab and be used as freely and actively as any other laboratory instrument. However, the promising concept fell victim to the times, when the emphasis at Lincoln Laboratory was not on health care research but on defense. The biomedical research computer aficionados left Lincoln Laboratory and established their own organization to complete work on the LINC and to seek reaffiliation with MIT on a more permanent and stable basis.

LINC work progressed, but reaffiliation seemed destined for a rockier road. Enter the stranger from the West, in the personage of George Pake, then provost of Washington University, who was on his way to Woods Hole and happened to pay a visit to the mavericks in Massachusetts. As a result of Pake's meeting with the LINC group, plans were made for the core LINC group to follow Horatio Alger's admonition and "go west." They began what is now Washington University's Computer Systems Laboratory.

The original LINC group members who remain at Washington University include Thomas T. Sandel, Ph.D., professor of psychology and Charles E. Molnar, Sc.D., now director of the University's Computer Systems Laboratory. The central plan for LINC had been to build a dozen or so for placement in biomedical research laboratories for evaluation. According to Molnar, "The first 18 or so were built at MIT, but a substantial amount of additional work, evaluation program management, software development and equipment modification took place at Washington University."

At the same time that the LINC evaluation program was progressing, Jerome R. Cox, who had earned his Sc.D. degree at MIT in 1954, was chief engineer for Central Institute for the Deaf (CID), Washington University's department of speech and hearing. With A. Maynard Engelbrecht, then a graduate student, Cox applied LINC to the needs of biomedical research in CID. While at CID, Cox also brought together a group of young engineers who later formed the nucleus of the Biomedical Computer Laboratory in the School of Medicine. And thus begins the story of a long and fruitful research collaboration between the BCL and the CID, a story of the partnership of electronics technology and biomedical and behavioral science.

The first LINC was used in studying the electrical potential of the brain and the ear, and the electrical response of the brain to auditory stimuli. It can also be used to study the brain's response to light, touch or other sensory stimulation. LINC could process the electrical responses while tests were in progress, and print out the results. It could store data from hundreds of tests and sort out scores of details for research. Although the original LINC is now more than 20 years old, one of the early models is still humming along in CID's electrophysiology laboratory.

Another early achievement was a statistics management and display system which debuted under the misnomer of HAVOC. Rather than wreaking devastation, HAVOC was (and still is) an instrument of exquisite order — a Histogram AVeraged Ogive Computer, charting brain waves evoked by presenting stimuli to people. Developed by Cox (now professor and chairman of the
James D. Miller, PhD., head of CID's Comparative Psychoacoustics Laboratory.

Hallowell Davis, M.D., and Jerome R. Cox, Sc.D., with a 1963 model RAP, a talking computer.

computer science department in the engineering school) and Engebretson (now assistant professor of electrical engineering in the Department of Speech and Hearing, and head of the digital methods laboratory in the research department of CID), HAVOC was the grand-daddy of today's "state-of-the-art" evoked response audiometry (ERA).

ERA allows assessment of hearing without the conscious participation of the patient or test subject. Precise information is instantly available from hearing tests performed on newborn infants, autistic or retarded children, stroke victims or severely withdrawn people who will not or cannot respond or participate in the testing procedures.

James Satterfield, M.D., then of the psychiatry department, and Hallowell Davis, M.D., were prime movers in using HAVOC. Davis, former director of research at CID, emeritus professor of physiology and biophysics, and research emeritus professor of otorhinolaryngology is, at the age of 86, still active in ERA testing and consultation at St. Louis Children's Hospital. He holds the National Medal of Science, was the first to describe response areas of single neurons in hearing, and was a pioneer in electroencephalography. Davis conducted classic studies of noise and hearing loss, and other studies which resulted in improved performance criteria for hearing aids. His name is virtually synonymous with hearing. Although he resigned as research director of the CID in 1965, he continues his research, an informal and productive association with both CID and BCL.

The early work in computer development at CID led, in 1964, to formation of the Biomedical Computing Laboratory, now a multi-million dollar resource for the School of Medicine. With funds from the NIH Division of Research Resources, the BCL works to develop advanced digital computing systems for biomedical applications, collaborates with scientists in most of the departments of the School of Medicine, provides education and training in computer technology for biomedical researchers, and works with commercial firms in further developing advanced systems for use in medical centers and laboratories throughout the country. One of the largest biomedical computing resources in America, the BCL now has a full-time and part-time staff of approximately 70, including electronics engineers, computer scientists, mathematicians and biological scientists who collaborate with more than 100 investigators locally and nationally.

CID now has eleven different specialized research computer systems in its laboratories of psychology, electrophysiology and anatomy, comparative psychoacoustics, speech and language, electroacoustics, and digital methods. The 13 full-time and six part-time research department staff members publish an average of 29 scientific papers per year, with computers being extensively involved in most of the research.

Last December, the 67th annual meeting of the board of managers of CID celebrated the end of the second ten-year phase of research collaboration with BCL. CID has been germinal in BCL's founding; BCL's grant support as a research resource has been prominent in the research growth and development at CID. Now, CID's computer systems dedicated to research are in place, proven and mature.

Jerome R. Cox, Sc.D., who moved from the BCL to head up computer sciences in the engineering school, said that the BCL "has always been a resource for helping researchers get started in special digital techniques and then develop independence.

BCL director Lewis J. Thomas, Jr., M.D., said: "This long and productive collaboration exemplifies a multidisciplinary approach to problem solving, encompassing research into fundamental principles, the development of mathematical techniques for addressing problems, the application of engineering skills..."
and computer equipment to projects such as the modeling of the physiology of the cochlea. The range of problems in CID research and the basic nature of biomedical research activity molded the style of biomedical computing that Jerry Cox began at CID and that we have continued in the Biomedical Computing Lab."

During the second ten-year phase of collaboration, CID and BCL developed a talking computer, RAP, now refined through three generations. The RAP system included the first stand-alone digital sound recorder with highly accurate reproduction of the recorded sound. According to James D. Miller, Ph.D., professor of psychology and head of CID's comparative psychoacoustics laboratory, "RAP was a significant advancement. Previous recording devices did not allow quick access to stored sounds or approach the fidelity." Beginning in 1972, RAP has been used in speech perception testing, and tests of theories of speech perception. RAP gives researchers absolute control of all variables in speech used in a variety of experiments.

The RAP III computer system, which includes speech synthesis, is the workhouse of the psychoacoustics laboratory. It includes four terminals, an eight-channel audio system with independently controllable attenuation, logic system interface and a printer. Current uses of RAP III include research on both animals and humans. Chinchillas are trained to respond to RAP III speech by either seeking a reward or moving to avoid a punishment. With computer control of syllable selection, reception and interval rate, loudness, etc., researchers can test the effects of one or more variables. The physiology of the chinchilla ear is similar to the human ear. Researchers can surgically modify the chinchilla ear, and then test for the effects of the impairment. A new program written last year for the RAP III is being used to test which acoustical differences are readily apparent to a chinchilla.

RAP also talks to babies in "mother-ese," synthesizing intonation and phrasing so common to mothers talking and cooing to infants. The same sounds and style can be produced in an adult male voice or a child's voice. Researchers hope to learn if varying the pitch contour, duration or amplitude of one syllable in a group can "highlight" that syllable for the infant.

Making "real-sounding" synthesized speech standard is but one approach to developing new knowledge about auditory communication and its disorders in the hope of ameliorating the effects of hearing loss. As CID's Miller said: "Early deafness has a profound impact on a child's ability to acquire language. The blind can learn Braille because they..."
have learned language by listening to it. Braille is a code for language they already know.

Research into how language is acquired through hearing speech is the basis of any effort to help the deaf learn to communicate in language. While the rate of congenital deafness is approximately 0.1 percent, in terms of numbers of people and the impact it has on them, the problem is severe. The rubella vaccine appears to have reduced dramatically one major cause of congenital deafness. Remaining causes include some infectious diseases, birth problems and genetic problems.

To understand the perception of speech requires understanding the acoustic description of the sound, the physiology of the ear, and the action of the brain. How does the ear, with its bones, chambers of fluid, hair-like cells and snail-coiled cochlea, and thousands of neuron connections deliver the acoustic pattern to the brain? What are the interrelationships among the mechanical vibrations of the bones, fluid pressure variables and electrical responses of the nerves? How does the brain decode and interpret the acoustic characteristics? It is the answers to these questions that will ultimately conquer the effects of deafness.

Researchers with their computers at CID are exploring all aspects of hearing and speech perception, as well as studying characteristics of the speech of people deaf at birth or deafened after having learned to speak, laying the groundwork for improving education of the deaf.

Work also continues on such problems as identifying differences in vowels and consonants spoken by males and females, and cultural differences in speech patterns.

Based on knowledge of which parts of an acoustical wave affect certain parts of the cochlea, CID's Engebretson and Miller have developed a computer program for fitting a master hearing aid to maximize whatever residual hearing characteristics an individual patient might have. Engebretson and engineer Paul Schroeder have begun work on a system for automatic classification of speech sounds in running discourse. This could improve training aids and communication aids for the deaf. Also, there are currently six projects in hearing-aid development under way in CID, dealing with performance objectives in the delivery of filtered, modulated and amplified sound to the ear.

Through the years, CID has stayed at the forefront of acoustical and auditory research. Evoked response audiometry allows early and definitive diagnosis of hearing impairment so that education can begin promptly. Not too long ago, diagnosis of deafness could not be made until a child was five years old; now, it can be done during infancy. Fifteen years ago, even the best hearing aids could deliver only 25 percent of a person's potential. Now, up to 75 percent can be achieved in many instances.

Other accomplishments are less obvious. As BCL's Thomas said: "There has been nothing truly dazzling, just the steady improvement of the understanding of the physiology of hearing. But this is the knowledge upon which all significant developments in aiding the deaf will be built."

One of the more scientifically interesting projects was the development, by Cox and his students, of a mathematical model of the cochlea which allows researchers to manipulate parameters of the model and study the mechanical behavior of the cochlea.

In the distant future, there may be dramatic innovations involving the use of wires smaller than neurons, and logic chips the size of a baby's fingernail that do the work of large computers. Matching or developing technology to solve biomedical problems will continue in the CID and the BCL, both going forward after two decades of research collaboration.
Speech Microscope: This picture of the acoustical structure of speech could be part of a key to one of the most interesting scientific mysteries of this century. Scientists analyze such printouts in an attempt to learn how speech is coded in the acoustic wave. They can also study the phonation and glottal wave form characteristics of the speech of the deaf. The researcher spoke the words, "Outlook Magazine." There are many sounds in each letter. The heavy bars are "formants," representing resonances of the vocal tract. Each stripe is an individual pulse from the larynx. Information such as this is used to identify critical information in speech, which is the basis for designing more receptive hearing aids. In the long run, this kind of knowledge could result in a machine which translates spoken words into printed text that a hearing-impaired person could read.
When St. Louis Children's Hospital broke ground for its new building in November of 1980, among the most interested onlookers were Park J. White, M.D., and his wife, Maria. At the age of 90, White has been an attending physician at Children's Hospital since he arrived in town in 1920 after a year's service with the United States Army. Like many pediatricians of his generation, White trained in adult medicine and had to receive "on the job" training in his chosen specialty which was only then gaining professional recognition. Not until 1930, when its National Board was organized in St. Louis, did pediatricians have to be certified in their specialty. Even by 1920, the year Dr. White was appointed an assistant pediatrician at St. Louis Children's Hospital, the specialty had come a long way from its status in 1900 when — according to one historian — not more than a half dozen physicians practiced pediatrics exclusively, in this country. Most of them had to combine it with such adult specialties as obstetrics and gynecology in order to make a living.

Park White grew to maturity with the specialty he chose to practice. In 1891, the year he was born, Dr. Thomas Morgan Rotch gave the presidential address to the third annual meeting of the American Pediatric Society. In it, he urged pediatricians "to make use of the experts in their several branches, whether it be chemistry, or physiology, anatomy or bacteriology, to strengthen and make stable our general deductions as clinical investigators." It was precisely the connections between developing insights in the basic sciences and their clinical application to problems of child health that pediatrics needed to come into its own. Dr. William Osler's address to the Society in 1892 noted that pediatrics was the last specialty to break away from general medicine, "because (the pediatrician) is the vestigial remnant of what was formerly ... the general practitioner." Osler's active membership in the American Pediatric Society was symptomatic of the fact that pediatrics was still considered merely a branch of internal medicine. It was not yet ready to stand on its own as a distinct medical specialty; 20th century advances would provide the necessary foundation for its independence.

A certain fatalism had marked the 19th century's approach to child health care. Before the days of pasteurization and refrigeration of milk, before immunizations and antibiotics, a third of the children under the age of five died of infectious diseases. In cities where statistics were kept, doctors knew the death rate. Yet, there were major achievements for the foundation of pediatrics in the later 19th century: the establishment of hospitals for children, the beginning applications of bacteriology and biochemistry to their ailments, and the publication of a major textbook in 1897 — L. Emmett Holt's classic "Diseases of Infancy and Childhood." As Dr. Edward Park noted in his preface to the 9th edition: "the first publication of the book was an event in the history of pediatrics in this country, for the book codified and defined pediatrics, set the subject of the care of the child in health and disease in order, and separated it clearly from general medicine."

By the time young Park White was an undergraduate at Harvard College in 1909, pediatrics had emerged from intellectual infancy into a period of steady development. Harvard Medical School had established the first full-time chair of pediatrics some fifteen years earlier, with Johns Hopkins and Washington University soon to follow suit. White made the decision to enter medical school during his freshman year in college; however the flexible nature of pre-medical studies in the early 20th century allowed him to take — as he recalled — "as many cultural courses as possible. And I took Shakespeare as well as a lot of literary and language courses."

The writing of poetry and prose were to be important throughout Park White's later medical career. In addition to his undergraduate course work, he found time to be an active member of a banjo club, the Harvard Socialist Club, and Phillips Brooks House, a social welfare organization. His social and humanitarian concerns turned him toward pediatrics when he entered Columbia's College of
Physicians and Surgeons in 1913. At that time there was still a negative attitude about “baby doctors”; Dr. White remembers a then-current phrase, “Small children, small minds.” The intellectual challenge of pediatrics was just beginning to be realized.

Three professors had a great influence on him in medical school: Hans Zinsser in bacteriology, L. Emmett Holt and Frederick Bartlett, his assistant, in pediatrics. These influences reflected Park White’s attraction to both basic research and clinical practice. In the end, he made a pragmatic compromise between the two, applying the fruits of research to the practice of pediatrics. The time was ripe for such an approach; the impact of biochemical and bacteriological research on deadly childhood diseases was dramatic in the first decades of the 20th century. Yet preventive or social pediatrics was also an exciting field at this time because many therapeutic breakthroughs had yet to be made.

Dr. Emmett Holt had succeeded Dr. Abraham Jacobi as Professor of Pediatrics at Columbia’s College of Physicians and Surgeons in 1902. However, Jacobi was still very much a presence in the school. White recalls Jacobi’s visits as a guest lecturer on the public health aspects of pediatrics. “He had great dignity and a Mephistophelean air, with a goatee and cape.” An emigrant from Germany in the mid-19th century, Jacobi is generally credited with bringing the laboratory approach to pediatrics into the mainstream of American medicine. His superb teaching and organizational ability did much to establish pediatrics on a firm footing within the medical profession; Jacobi helped found a section on the Diseases of Children within the A.M.A. and was a firm advocate of special hospitals for children.

Park White’s three professors of pediatrics, Jacobi, Bartlett, and Holt, differed, as did many of their colleagues, in their opinions as to the direction in which 20th-century pediatrics should move. Holt believed pediatricians should concentrate on clinical research and basic inquiries into the nature of children’s disorders. Others, like Jacobi and Bartlett, believed that in addition to such research, pediatricians should take positions on controversial public issues affecting children’s health — the abolition of child labor, the regulation of food processing, and government support for improvement in child health care. As Abraham Jacobi wrote, “It is not enough . . . to work at the individual bedside and in the hospital.” He hoped that pediatricians would be leaders, rather than followers, in a national concern for child welfare. His hopes were fulfilled when some pediatricians walked out of the 1922 American Medical Association meetings in disagreement with that organization’s position against the passage of the Sheppard-Towner Act — the first federal grant-in-aid program for maternal and child health.

With Veeder’s help, he met members of the WUMS faculty and undertook part-time research with Dr. Eugene Opie and Dr. Jean Cooke on influenza bacteriology. As White recalls with some irony, “It was soon apparent to me — and presumably to the others — that I lacked expertise at that sort of thing. So I began ringing doorbells.” Doorbell ringing was an essential part of Dr. Eugene Opie’s research to detect juvenile
tuberculosis; as a research assistant, Park White received $50 a month—a considerable sum. His duties included visits to schools and homes where he did skin-testing for exposure to the disease. His memory is that at this stage in his career, “my private practice did not greatly interfere.” In one school he found 50% of a third-grade class testing positively for exposure to tuberculosis; the source of infection turned out to be their teacher. As he commented, “That shows the importance of public health work, public health consciousness, and public health advocates.” Pediatrics and public health were particularly close allies when infectious disease was the major threat to children’s well-being. Such public health work made Dr. White a valuable link between the research professors at the medical school and the wider community.

In his years of pediatric apprenticeship during the early 1920s, he gained a firsthand view of the medical school’s development. As an unofficial “extern,” Park White entered the hospital lunchroom shyly; he was soon invited to join the full-time faculty at their table by the Dean himself, G. Canby Robinson. “The invitation was typical of the medical school here, which was so free from some of the restrictions I had seen as a medical student in New York. There was no pomp and circumstance,” he remembers.

By 1923 White had begun to have his own influence on the Washington University Medical School’s curriculum. With the backing of Dr. McKim Marriott, Head of Pediatrics and later Dean, he introduced a course in Medical Ethics and Professional Conduct as a fourth year elective. Most of the class attended. He continued to teach the course for some 26 years, until 1950. The content was extensive, up-to-date, and startlingly modern. It included readings and discussions on medical economics, poverty and race as health factors, birth control and comparative health systems. He published three articles describing the course and its development in professional journals, and it is still regarded today as a pioneering effort in that field.

Nor was Park White’s concern about medical ethics and professional conduct confined to the classroom. He carried that concern with him into his own pediatric practice which opened in 1924. By that year he had become well enough known in the community, and knowledgeable enough about pediatrics, to send out a card announcing his practice of “pediatrics and clinical pathology.” His may well have been the only racially integrated private practice in the city at that time.

When an epidemic of measles broke out, his salary was more than earned. In his private practice, too, White gained a keen sense of how his patients’ families lived because house calls were an integral part of his services. They began in the afternoon and often continued well into the evening; the charge was normally $3 — the scale was a sliding one.

Despite his growing clinical responsibilities, he continued his interest in public health and published an epidemiological study of the morbidity and mortality of Black children in St. Louis. This study showed that in 1923 Black children had half the chance of survival, and from two to three...
times the chance for contracting disease, as did white babies. The statistics for St. Louis showed a death rate of 63 per 1,000 among White infants compared with a rate of 126 per thousand among Black infants. So striking was the mortality rate has dropped below 15 per 1,000, a marked difference of race, are two, poverty and ignorance. Money can buy health, unquestionably, to a very high degree."

In 1925, the year this study was published, White was serving as Chairman of the Health Committee of the St. Louis Community Council Race Relations Department. While the era of Civil Rights demonstrations and legislation was still decades away, he persisted in his campaign for improving the conditions under which Black Americans had to live. In 1928 he published an article entitled, "Segregation and the Health of Negroes." Here he amplified his findings on Black infant mortality with statistics on the health of the general Black population, then moving in large numbers to northern cities. While many then believed that Blacks brought their poor health with them, Park White disagreed, citing the unhealthy conditions under which segregation forced them to live and work. He concluded, "with greater freedom and less segregation, with better wages and better schooling, comes better health." This commonsense observation was a new idea in 1928.

As a physician, Park White believed that more and better trained Black medical personnel could be an important factor in improved health care for Black children. He put his belief into action when he agreed to become director of the Division of Pediatrics at Homer G. Phillips Hospital in 1945. By that time his private practice had developed into a thriving enterprise, and continued to be racially integrated, not a common custom at the time. According to Natalie Grant (whose husband, Dr. Samuel Grant, shared offices with White), White's bedside manner was irresistible; he often wore false whiskers which made her children greet him with giggles rather than apprehension. Another parent, Melba Sweets, remembers his coming to see her sick infant daughter in full evening dress on his way to a concert. Such personal attentions to his private patients didn't prevent Park White from seeing the health problems of other children in the City of St. Louis or in the State of Missouri.

By 1933 pediatrics had become a full-fledged medical specialty with a certifying Board; Park White received his Board Certificate the next year. The introduction of sulfanilamide and other antibiotics were to transform the nature of pediatrics in the late 1930s and 1940s. Infectious diseases would no longer be the major threat to child health that they had once been. Yet the larger social diseases afflicting American society and directly affecting public health — poverty and racism — had yet to be treated. As White wrote in 1928, "Any American interested in the public health must sooner or later concern himself with the subject of race relations."

White's work as head of the pediatric division at Homer G. Phillips Hospital gave him a clear view of Black children's health problems in St. Louis. High among them was the need for more trained medical personnel to serve them; at this time Homer G. Phillips was the one hospital in St. Louis where Black physicians could serve as interns and residents to obtain advanced training in any specialty. Dr. Helen Nash, then a young intern, has vivid memories of Park White's impact on staff morale and patient care. "He made a big difference. He persisted in running a pediatric service when others had not. This meant that Black physicians were able to be trained in the field."

With Dr. Alexis Hartmann, then head of Pediatrics at WUMS, he obtained a Maternal and Child Health Grant to support part-time salaries for housestaff training. As Dr. Nash recalls, "Because of his work, a significant number of Black pediatricians were able to pass their Boards and go on to careers in the field." When she finished her pediatric training, Dr. Nash stayed on to help Dr. White run the pediatric division at Homer G. Philipps Hospital. At his urging she applied for a position as an attending physician at St. Louis Children's Hospital and in 1949 became the first Black physician on the staff. (She was elected president of the attending staff from 1977 to 1979.)

As Director of the Pediatric Division at Homer G. Phillips, White worked with the medical and nursing staff to improve substandard equipment and poor sanitary conditions. And he published findings pressing for legislation on the basis of what he observed in his hospital experience — in particular for the prevention and treatment of lead poisoning among poor children of both races. During an epidemic of lead poisoning from the burning of battery casings, 19 infants died during one year. White recalls, "A group of us from Homer G. Phillips Hospital, including Drs. Helen Nash, Gene Grabau and Neal Middelkamp, went to precisely the right person, Mayor Aloys Kaufmann, to do something about it. A city ordinance resulted, regulating the salvage of battery casings, and there were no further deaths from that source of lead poisoning."

Yet the incidence of lead poisoning continued unabated from another source — lead-based paint and plaster often found in substandard older housing. In 1957, White published a paper...
in Today's Health, reprinted the following year in the Journal of Housing, on the continuing danger of lead poisoning among poor children. He described his visits to deteriorating housing, from which children were later admitted to Homer G. Phillips Hospital with symptoms of lead poisoning.

White called lead poisoning “one of the most terrible, hence one of the least excusable, hazards of the poor,” and noted, “lead painting, like their poverty, they will have always with them, until new housing can catch up.” His prediction has proved accurate.

The post-war development of pediatrics in the State of Missouri was another of his major interests. From 1946 to 1949 Dr. White served as state co-chairman of a National Survey of Child Health Needs, done under the joint auspices of the American Academy of Pediatrics, the United States Public Health Service, and the United States Children's Bureau. With his assistant, Dr. Elizabeth Bryan Deisher, data were gathered statewide which showed that Missouri could count only 75 Board-certified pediatricians. General practitioners were still providing 75 percent of children’s health care, although 46% of them had no hospital training in pediatrics.

The ratio of children per pediatrician in the state was 12,854 to 1! The need for more trained pediatricians was obvious. In the post-war years these findings were a useful basis for the expansion of child health training and services.

A concern for the larger environment has been characteristic of Park White’s career, whether that environment was state, local, or national. In 1956 he helped to found the Greater St. Louis Committee for Nuclear (later environmental) Information. The collection of baby teeth to test for the presence of strontium 90 was one of their major efforts in obtaining a ban on above-ground nuclear testing.

If the larger human family has been at the center of Park White’s life and work, his own family has always been a source of joy to him. Since his retirement from the private practice of pediatrics in 1955, White has had more time to enjoy his wife, children, and grandchildren. His numerous descendents include several in the medical field: a son, Laurens Park White, a 1949 graduate of WUMS, now an oncologist-hematologist in San Francisco, a granddaughter who is a full-time pediatrician on the faculty of Case-Western Reserve, and another granddaughter who is about to obtain a Ph.D. in molecular biochemistry from Johns Hopkins. Grandchildren number ten, and there are already two great-grandchildren.

Since retirement, White has continued to add to his bibliography in both poetry and prose. While many of the public health problems he treated during his active career persist, he has never lost his sense of proportion or humor. This is in large part due to the constant backing and encouragement of his wife of sixty-four years, Maria Bain White. A poet sometimes in the Ogden Nash tradition, he is also the author of several plays, one of which had a run of two nights. In 1972 he published a volume of collected poems entitled Verse — and Verse; all proceeds from its sale go to St. Louis Children’s Hospital. Park White finds this entirely appropriate since, as he says, “Most of what pediatrics I know I owe to that institution.”

Dr. Waldo Nelson, one of his distinguished colleagues, wrote a perceptive review of his book in the Journal of Pediatrics, calling White “the poet laureate of pediatrics.” He commented, “In a very real sense Park White has found his pen to be an outlet for the realities of the working day and through these pages one comes to know the man who worked and grew young . . .” Philip Dodge will indeed be fortunate if he has a few young “Park Whites” on his staff.” Philip R. Dodge, M.D., head of the Department of Pediatrics, agrees.

“When I first came to St. Louis some 15 years ago,” he said, “I was told by a member of the faculty that I would have to do something to ‘contain’ Dr. P.J. White. By this he meant that at Grand Rounds, P.J. would make comments, recite poetry, sing, and even dance. He does all of these things to the delight of us all. Grand Rounds are always more fun when he attends. An historical perspective is provided by his comments and questions. When you’ve been in the ‘business’ some 70 years, you certainly gain an important perspective. P.J. is a marvelous human being who stands for so much that is characteristic of the best in pediatrics and pediatricians.”

“I am fortunate to have known Park White for a long time,” said Lawrence Kahn, M.D., Professor of Pediatrics, Preventive Medicine and Public Health, and Director of Health Care Research.
He is now what he has always been, a community leader, a dedicated pediatrician, a pundit, a litterateur and a wit. But he is much more than that. He is what many of us would be if we could, a man ahead of his time, doing what he can in the best way he can, and doing it with the grace and humor that reminds us who we were, and who we are, and where we're going.

Park J. White (with his wife, Maria Bain White) at the groundbreaking for the new St. Louis Children's Hospital last Fall. An attending physician at Children's since the 1920's, White usually still attends Grand Rounds. Mentor to minority physicians (Blacks and women), former head of Pediatrics at Homer G. Phillips Hospital, physician to children of all races, teacher of ethics in the classroom and in the conduct of his practice from 1921 to 1955, Park J. White has not only treated private patients, but has worked for public health from TB testing in the Twenties to issues of clean air, clean water and lead-free paint in the Seventies and Eighties.

Derelict

I see him fumbling in that garbage-can, Culling its filth with hungry eagerness; I see the cast-off thing that was a man. So old, so lonely in this wilderness We call a city. All the indifference Of cold machinery speaks to me through him. Is he its hapless victim? What offense By this man or his fathers brings so dim And drab a twilight to his dreary day? Cause and effect! I know God works through these! Shame to charge Heaven with the outcast's plight, While we think only to contrive a way To sate us fortunate who hold the keys! And still he hunts in garbage-cans at night.

Down To The Sea—1969

Come glide with me in my outhouseboat Past the Messyssippi's shores— Past babbling sewers with muck afloat, Adding their noxious stores; Bring along your best bathing-suits (Worn only on deck or land); Pollution and Fastback are in cahoots; They go, dirty hand in hand. You vulture-lovers, it's carrion They relish, — plus filth and slime. Our Stynx is the river to tarry on For an offally restful time. Originally appeared in Environment, Oct., 1969.
From The Children’s Clinic

Faith, hope, and love; now abide these three.
Yes, Paul, but why do saints leave out mirth?
We lesser mortals must laugh, you see,
Or else be hopelessly bound to earth.

How blest is he with a lilting heart! —
His yoke is easy, his burden light;
He bears his own and another’s part;
To him, religion is pure delight.

What a wondrous thing is the way of God! —
The way of God with a little child,
Who’ll dance along where his elders plod,
Sure that on him the whole world has smiled.

This rhyming sermon with text complete
I owe to four little dark-brown girls,
Whose irresistibly dancy feet
Keep time with breezily bouncy curls.

A whirling circle of rhythmic grace —
Has faith within it which makes men whole.
For through it glimmers a people’s soul.

Song Of The Wayfaring Surgeon
TUNE: “Suwannee River”

‘Way down around the umbilicus,
Ventrad, I say,
Where pain and tenderness do strike us.
There’s where we love to play.

The whole abdomen has attracted
Many such as we;
One little stone become impacted —
One little doctor’s fee.

All up and down the great omentum
Sterile we roam:
Gall-stones so hard a knife won’t dent ’em —
These make us feel most at home.

The whole abdomen has attracted
Many such as we;
One little stone become impacted —
One little doctor’s fee.

To A Barium Swallow

O Barium Swallow flitting down,
A-twittering on thy way,
Will what thou sing’st cause smile or frown,
Bird of the Roentgen Ray?

Opaquely eloquent art thou
Behind my beating heart.
A bird’s-eye view thou givest now,
Tho’ bird thou never wert.

Smooth, unobstructed be thy flight
O’er peristaltic wave.
Dive low, and shed a wholesome light
On how my guts behave.


He Isn’t Goin’ta Hurtcha!

“‘Now, he isn’t goin’ ta hurtcha!”
What an error in child nurtcha —
What lack of parental virtcha
Do those silly words reveal!
I have yet to see a child
Whom they’ve not made still more wild,
Utterly unconciled
To the chap who tries to heal.

Originally appeared in Hygeia. Sept., 1939.

Definitely Emeritus

(Aet. 69)

You’re Emeritus? You’ll love it:
There’s no title that’s above it.
If you seem a trifle leery
Of that doleful prefix “Geri,”
Celebrate your Senectute
With some Senectutti-frutti.
Since you have no claim to Highness,
We’ll address you as Your Spryness.

Washington University has received a $45 million challenge grant from the Danforth Foundation. The funds will be awarded over a five-year period to support automation of the Olin Library, student services, academic programs in Arts and Sciences, and the School of Architecture and Fine Arts, Business, and Engineering and Applied Science. The School of Medicine will receive $5,000,000 for the Clinical Sciences Research Building, and $10,000,000 to support biological, biomedical, and medical science research. The grant is subject to the University's obtaining matching contributions from private sources.

Wayne M. Barnes, Ph.D., assistant professor of biological chemistry, received a five-year, $155,000 Faculty Research Award from the American Cancer Society to support his work. He is developing a new strategy for using a technology which he learned during two years of work in the laboratory of 1980 Nobel laureate Dr. Frederick Sanger in England. The technology is "DNA sequencing," or determining the patterns taken by groups of each of four kinds of nucleotides arrayed along both sides of the double helix of DNA. Barnes claims that his strategy is at least five times more efficient than other DNA sequencing methods. Barnes hopes to document the DNA sequence and genetic control mechanism of histidine operon, a collection of bacterial genes which makes histidine, an essential amino acid. The combined genes can be copied by an enzyme. When X-ray film is laid on an electrophoresis gel, a visible pattern of groups of nucleotides is produced. Barnes' strategy makes copies of genes' DNA in a controlled, step-by-step fashion. There are as many as 300 to 400 nucleotides in a step, and three steps in each experiment.

Richard E. Clark, M.D., professor of surgery and biomedical engineering, has received the Arthur H. Shipley Award of the Southern Surgical Association for a paper delivered at the December 1980 annual meeting of the Association. The paper, "Laboratory and Initial Clinical Studies of Nifedipine, A Calcium Antagonist for Improved Myocardial Preservation," was co-authored by Drs. Ignacio Y. Christlieb, Thomas B. Ferguson, John P. Marbarger, Burton E. Sobel, Robert Roberts, Philip D. Henry, Philip A. Lubbrook, and Daniel R. Biello, with the assistance of Barbara K. Clark. The paper summarized five years of laboratory investigation plus six months of clinical experience with nifedipine added to a cold hyperkalemic cardioplegic solution to enhance myocardial protection during cardiac surgery. The clinical trials involved 38 patients who had poor cardiac function before surgery. Use of the calcium antagonist decreased both mortality and the need to support circulation with an intra-aortic balloon pump.

Thomas A. Woolsey, M.D., associate professor of anatomy and neurobiology, and associate professor of physiology and biophysics, is one of 14 recipients of the new McKnight Neuroscience Development Awards. He will use $100,000 to initiate his immunocytochemical studies of the mouse barrel cortex. The "barrels" are structures in the cortex of the mouse brain which are arranged in a pattern that exactly corresponds to the pattern of whiskers on the animal's face. Woolsey has been studying the effects of manipulation and sensory deprivation on the structure of the barrels, and the physiological response of the barrel cells to stimulation of the whiskers. Woolsey's research is one of many efforts to determine the factors involved in the establishment and maintenance of connections in the brain. The McKnight Foundation is particularly interested in advancing research in neuroscience pertaining to memory and the biological basis of memory disorders.

Bevra H. Hahn, M.D., associate professor of medicine and director of the Arthritis Center, has been appointed to the National Arthritis Advisory Board. The board was established by the Health Programs Extension Act of 1980 to review and evaluate the ongoing Arthritis Plan developed by the National Commission on Arthritis and Related Musculoskeletal Diseases. The plan includes more than 150 recommendations for arthritis research, arthritis centers, epidemiology, data systems, education, and community programs.

G. Lee Judy, executive director of The Child Guidance Clinic, is editor of a new book in which 35 clinicians and administrators from throughout American review and discuss child guidance strategies and services. The book is titled Successful Innovations in Child Guidance. E. James Anthony, M.D., Blanche F. Ittleson Professor of Child Psychiatry, wrote the foreword. The book includes chapters on accountability, management and training, community programs, programs for young children, and special programs such as residential treatment, multiple impact therapy, day treatment experiment and other specialized approaches. The book was published by Charles C. Thomas of Springfield, III.
Susan Y. Crawford, Ph.D., has been appointed Director of the School of Medicine Library and Professor of Biomedical Communication, succeeding Estelle Brodman, Ph.D., who retired. Crawford was previously Director of the Division of Library and Archival Services for the American Medical Association, headquartered in Chicago, and Professor of Library Science at Columbia University, New York.

Crawford received her Ph.D. in Library and Information Science from the University of Chicago in 1970. She also holds a master's degree in biological and social sciences from the University of Chicago as well as degrees from the University of Toronto and the University of British Columbia. She is a member of Sigma Xi, Fellow of the American Association for the Advancement of Science, former member of the Board of Regents of the National Library of Medicine, and recipient of the Medical Library Association Eliot Prize.

Research areas have focused on communication among scientists, biomedical communication and statistical studies of health sciences libraries. Crawford is the author or co-author of some 70 books or journal articles and has served on the editorial boards of six scientific journals. Her many continuing professional activities include Principal Investigator for a 15-year longitudinal study of health sciences libraries in the United States, and peer review consultant for the National Science Foundation and the National Institutes of Health.

Five members of the Washington University faculty were honored by election to the status of Fellows of the American Association for the Advancement of Science (AAAS). They are: Chancellor William H. Danforth, M.D.; Samuel B. Guze, M.D. (45), Vice Chancellor for Medical Affairs; Spencer T. Olin Professor and Head of the Department of Psychiatry; Louis V. Avioli, M.D.; Sydney M. and Stella H. Shoenberg Professor of Medicine; Susan Crawford, Ph.D., head librarian of the School of Medicine; and G. Edward Montgomery, Ph.D., associate professor of anthropology.

The AAAS describes Fellows as members "whose efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished." The announcement of the election of new fellows was made at the AAAS annual meeting in Washington, D.C., in January.
Eli Robins, M.D., Wallace Renard Professor of Psychiatry, is the 1981 Silver Medalist of the Salmon Committee on Psychiatry and Mental Hygiene. The committee is appointed by the New York Academy of Medicine to honor a specialist in psychiatry, neurology or mental hygiene for outstanding contributions to the specialty. The medal, and lectures in conjunction with the presentation, honor the late Dr. Thomas W. Salmon, a leader in psychiatry and a member of the New York Academy of Medicine who died accidentally in 1927. Friends and colleagues raised $100,000 as a memorial fund. Lectures in Salmon’s honor have been held since 1932, and the Silver Medal has been presented, although not annually, since 1942.

The Salmon Medal is the most recent of many awards to Eli Robins, who received his M.D. degree from Harvard Medical School in 1943. He is a member of Alpha Omega Alpha and has received the Gold Medal of the Society of Biological Psychiatry in 1974 and the Paul H. Hoch Award of the American Psychopathological Association in 1977.

In the citation to Robins, the Salmon Committee noted his excellence not only in teaching, research and patient care, but also his “administrative achievements in building the Department of Psychiatry at Washington University.” Robins joined the School of Medicine as an instructor in psychiatry in 1951. That year, he undertook a study of lipids in the nervous system — a highly unusual undertaking for a psychiatrist in those days. His collaborator was Oliver H. Lowry, M.D., head of the Department of Pharmacology and one of the leading biochemists in the world.

Robins became a professor of psychiatry in 1958 and was head of the Department of Psychiatry from 1963 until 1975. He built a reputation for focusing the department’s efforts to link mental illness with brain chemistry. He led the department in descriptive psychiatry, biochemical research and diagnostic criteria based on the classical medical model. His approach was long considered radical and isolated from the mainstream of psychiatry. Today, it is the approach of choice in the United States and abroad.

The Salmon citation further commended Robins’ “advocacy of science as a basis for psychiatry” and pointed out that his publications range “from the most molecular issues of neurotransmitters to suicide and sociopathy.” The citation concluded: “As few in our time, you have also seen your research influence the practice of psychiatry. Beginning with the search for reliable diagnoses, you have restored respectability to the study of the natural history of disease and have contributed immeasurably to our understanding of schizophrenia and affective disorders, of alcoholism and drug addiction, of antisocial personality and criminal behavior . . . . The beneficiaries of your steadfastness and your courage are, thus, not just psychiatric researchers and clinicians, but ultimately all those in pain everywhere, who are better off because of what you have done.”

The Child Guidance Clinic, which is the School of Medicine’s William Greenleaf Eliot Division of Child Psychiatry, has become accredited by the Joint Commission on Accreditation of Hospitals. Located on North Taylor near the Medical Center, the Child Guidance Clinic is the only free-standing outpatient facility for children certified by the JCAH.

The Child Guidance Clinic also announced the appointment of a new president of its board of directors, and the election of seven new board members. The new president is Reginald D. Dickson, who is executive vice president and chief operating officer of Inroads, Inc., a non-profit organization which sponsors minority pre-college and college students studying engineering or business in 12 cities in the U.S. The seven new board members are: William Colbeck, formerly president of the United Auto Workers union in Missouri and now a labor specialist with the United Way; Art Perry, pharmacist; Connie Wittcof, psychiatrist; Robert Rubright, president of the marketing firm of Rubright and MacDonald; Sanford Weiss, president of Weiss-Neuman Shoe Company; Steve Zucker, manager of marketing communications for Mylee Digital Sciences, Inc.; and Lincoln Scott, regional director of Inroads, Inc.

G. Lee Judy, executive director of the Child Guidance Clinic, also announced the receipt of $4,000 from the Phi Beta Phi Alumnae Club to develop three new playrooms at the Clinic.

The March of Dimes Birth Defects Foundation has awarded research grants totaling $62,770 for the current year to three researchers at the School of Medicine. John M. Chirgwin, Ph.D., assistant professor of anatomy and neurobiology will study genetic control of nerve growth factor and related substances crucial to fetal development. In studying the sequence in which hormones activate genes to produce nerve growth factor in mouse cells, Chirgwin hopes to learn more about normal nerve growth and how genetic abnormalities can disrupt it, perhaps causing mental retardation or nervous system disorders.

Maynard V. Olson, Ph.D., assistant professor of genetics, is using recombinant DNA techniques to break yeast chromosomes down into many overlapping short segments, and then using new computer techniques to combine the overlaps into a complete map of the chromosomes. Yeast cells have more complex genetic systems than viruses and bacteria, which have been mapped. If the technique is successful, it will be one more step in mapping chromosomes, ultimately leading to the ability to map human chromosomes for use in research and genetic counseling.

Lee A. Rigg, M.D., Ph.D., assistant professor of obstetrics and gynecology, and Barnes Hospital physician, will study receptor sites for insulin in maternal and fetal cells and compare different therapies for diabetic pregnant women. The study will lead to more information about the special risks faced by infants of diabetic mothers and methods to reduce those risks.
Frederick Sweet, Ph.D., associate professor of reproductive biology in the Department of Obstetrics and Gynecology, has been awarded a four-year, $341,000 grant from the NIH to continue studies of steroid hormone interaction with specific proteins of the reproductive system. The funds will be used to continue work begun at the medical school two years ago with Colin Nancarrow, Ph.D., senior research scientist in animal husbandry in Australia, and Mohamed Sharaf, Ph.D., assistant professor at the University of Alexandria, Egypt.

Two years ago, the three researchers developed methods to isolate an enzyme found in the red blood cells of fetuses of a variety of animals. Nancarrow had discovered the enzyme previously. The enzyme disappears from the blood of the offspring shortly after birth, and can inactivate both progesterone and testosterone. Current research will employ immunological techniques for measuring changes in the blood levels of the enzyme during the pregnancy of sheep. Identifying and describing the role of this fetal enzyme could improve animal production and advance knowledge about similar enzymes in humans.

Philip W. Majerus, M.D., professor of medicine and biological chemistry and Director of the Division of Hematology received the most prestigious award of the American Society of Hematology — the Dameshek Prize. The award was presented at the society's annual meeting in San Antonio last December. Internationally recognized for his research on low-dose aspirin in the prevention of thrombosis, Majerus received the prize for his contributions to the understanding of blood coagulation and the functions of blood platelets. Majerus received his M.D. degree from WUMS in 1961 and has been a member of the faculty since 1966. He is principal investigator and director of the school's Specialized Center for Research in Thrombosis and is on the staff of Barnes Hospital.

Carlos A. Perez, M.D., professor of radiology and director of the Division of Radiation Oncology, Mallinckrodt Institute of Radiology, was elected president of the American Society of Therapeutic Radiologists at the recent meeting in Miami, Florida. Following his one-year term as president of the society, Perez will become chairman of the board of directors for 1983. Perez has been director of the radiation oncology division since 1976, and is also radiotherapist-in-chief for Barnes Hospital. He is on the editorial boards of five major medical journals, and has written more than 100 scientific publications and papers dealing with cancer. He is a member of several national cancer committees and is active in cooperative groups coordinating clinical trials of cancer treatment strategies.

Andrew P. Goldberg, M.D., assistant professor in the departments of medicine and preventive medicine, has received a $17,500 grant from the American Diabetes Association to study the effects of exercise and physical training on patients with non-insulin-dependent diabetes mellitus. These patients have abnormal lipid and glucose metabolism and are often obese, and are, consequently, at risk for premature coronary heart disease and atherosclerosis. Patients will be placed either on an exercise program or another program of diet modification and weight loss. Goldberg will study the metabolic effects of physical training and improvement in work capacity of the patients. Together with Julio V. Santiago, M.D., assistant professor of medicine and associate professor of pediatrics, and John Gavin III, M.D., Ph.D., assistant professor of medicine, Goldberg will investigate the mechanisms by which exercise improves lipid and glucose metabolism, assessing the magnitude of change in the exercisers and comparing their levels with levels in the patient group treated with diet management and weight loss.
The Alumni Report

Gift Funds Endowment of Chief Residency in Medicine

A patient’s gift to honor his physician will support the teaching responsibilities of the Chief Resident in the Department of Medicine.

The patient, who gave $50,000 recently, is Wesley J. Barta, former chairman and president of Chromalloy American Corporation, headquartered in Clayton, Mo. Barta is a consultant to Chromalloy and is chairman of a Chromalloy subsidiary, The Valley Line Company. The physician honored by the gift is Ernest T. Rouse, M.D., who received his M.D. degree from Washington University School of Medicine in 1943 and served as Chief Resident in the Department of Medicine in 1948.

Rouse is in private practice and is professor of clinical medicine on the part-time faculty of the school.

David Kipnis, M.D., Adolphus Busch Professor and Chairman of the Department of Medicine announced the gift and reported that with additional contributions from the Department of Medicine, professional colleagues, patients and friends, the Ernest T. Rouse Fund now totals more than $110,000. The goal is $250,000.

The fund will be used to support the teaching responsibilities of the chief resident in the Department of Medicine. According to Kipnis, the chief residents carry major teaching responsibilities and are junior faculty members paid by the School of Medicine rather than by the affiliated hospital.

Rouse has devoted his professional life to the practice and teaching of general internal medicine. "It is in the field of general internal medicine," Rouse said, "that physicians must present their greatest proficiency because it is the general internist who deals with the majority of patients and their families. I can think of nothing more important than establishing a teaching program directed toward internal medicine. I am extremely honored that Mr. Barta is making this gift to establish a fund for Chief Residents dedicated to teaching interns and residents in general internal medicine."


This is the year to give special consideration to the will you have written — or to be sure you do not put off any longer the preparation of a will. Why? The sweeping liberalization of federal estate tax laws that began to take effect on January 1 has changed many of the rules and reasons behind decisions made in earlier estate planning.

The new law makes it much easier to leave assets to your spouse and to make gifts without tax to family and friends. It reduces the cost of settling most estates and uncomplicates the probate process. But, to die without a properly drawn will, as one estate planner has said, is a fate worse than death. State statutes then determine how to settle and distribute your estate. More than likely the plan your state has made for you is not the plan of your choice. You tacitly accept the state’s plan if you do not make your own will.

An excellent new booklet is available from Washington University's Planned Giving Office called “Estate Planning.” It discusses planning for your own lifetime benefit, for your family, and for your favorite charities. It also explains the new estate and gift tax laws. For a free copy, please write to: Planned Giving Office, Campus Box 1193, Washington University, St. Louis, Missouri, 63130.

— John C. Thompson

Medical Center
Alumni Association
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St. Louis, MO 63110
(314) 454-2823
Fred D. Peterson, M.D., President

The alumni office is located in room 107 of Wohl Hospital.
Letters

Thomas B. Ferguson, M.D., received many letters following publication of his article about the late Evarts A. Graham, M.D., in the Autumn ’81 issue of OUTLOOK. He was kind enough to share some of them with us.

“Thank you for the biographical article of Dr. Evarts A. Graham in the Autumn 1981 issue... I certainly enjoyed reading it and it brought back memories of Barnes Hospital. I interned there in Pathology in ’26-’27 and on Dr. Graham’s Surgical Service in ’27-’28... I always regarded Dr. Graham as a wonderful teacher and felt that he was very kind to us students.

Walter R. Petersoll, M.D., ’26
Trenton, New Jersey

... a fascinating address doing honor to my old professor, incidentally mentioning a great host of people remembered with affection over the years... I remember very well Sam Harbison wiring Dr. Graham while Sam and Janie were on their honeymoon up in northern Michigan. His wire to the chief said, ‘It’s wonderful up here. Wish to remain another week.’ Graham’s prompt response was, ‘It’s always wonderful anywhere. Get back here to work.’ ”

Charles W. McLaughlin, Jr., M.D., ’29
Omaha, Nebraska

“Goodness, it brought back a lot of memories! When you wrote about the research Graham was doing on reindeer, I remembered the box of leeches which Dr. Burford told Annie to put in the refrigerator. They had arrived late one afternoon when we were all ready to go home. Graham planned to use them to extract blood from the reindeer because they wouldn’t hold still for a needle and syringe. Well, the leeches got loose in the refrigerator and Annie and I both about fainted when we looked in the refrigerator the next morning. One of the residents finally got them back in the box with a couple of tongue blades.”

Adelaide Kloepfer, R.N.
Spartanburg, South Carolina

“I enjoyed very much your article on Evarts Graham in the Autumn 1981 OUTLOOK Magazine. I remember you when I was a medical resident at Barnes in 1959... Your article was beautifully written and most enjoyable...”

George H. Porter III, M.D., President
Alton Ochsner Medical Foundation

“I read and re-read your fine 13th Evarts Graham Lecture... My only contact with this great surgeon was as a member of the rapt student audience... Dapper Jake Probstein and Warren Cole were surgical clinic instructors in my time... We knew of the Empyema Commission work in WW I. I served in a Field Hospital... treating Chinese wounded, and we followed his tenets quite well... I always thought that Dr. Graham produced more chiefs of surgery for other medical schools during his career... Finally, I was especially touched, indeed, by your final paragraph mentioning Sir William Osler and that Dr. Graham fitted that category, a great practitioner, teacher and researcher in the finest profession.”

Sydney S. Pearl, M.D., ’32
Elizabeth, New Jersey

“When I came to W.U. medical school in 1923, all talk in surgery was about cholecystography... As a student, I spent considerable time on Surgery. I was a house officer on Surgery for one year... I was first assistant on an operation for a large ovarian cyst which was filled with pus. The operator left me to close, my first closure. The patient got peritonitis... she finally died. I became very depressed and thought of going back to the farm. I got a call from Miss Hanvey that Dr. Graham wanted to see me. I immediately took that to mean that I was going to get fired. I have never spent such a miserable time. When I went into Miss Hanvey’s office, she told him I was there. In his usual harsh voice, he said ‘Come in, Hobbs, and sit down.’ He said, ‘I hear you are depressed about a woman whom you closed and she died.’ I said, ‘Yes, Sir.’ He said, ‘This woman had a tuberculous ovarian cyst, she got peritonitis... It is no fault of yours. This happens to every surgeon and it will undoubtedly happen to you again.’ You can’t imagine my relief! Oh, yes — I was at the operation on Dr. Gilmore. He was an OB/Gyn man and a friend of mine...”

John Hobbs, M.D., ’27
St. Louis, MO
Stethoscopy

Sharp-eyed readers of the Winter '81 issue responded to the typographical error on the inside cover which called Laennec the inventor of the telescope instead of the stethoscope.

"Thanks for the note on Laennec. However, Galileo would have been surprised that Laennec was credited as 'the inventor of the telescope'..."

S.J. Kotas, Ph.D., M.D.
Washington University Clinics

"Laennec was one of the 'greats,' but I wonder what poor old Hans Lippersky would think. Even Galileo gave him credit!"

I. Woodall Rose, Jr., M.D.
Raleigh, North Carolina

"Here is an interesting historical footnote to your Winter inside cover's identification of Laennec as inventor of the telescope. His motive... was a desire to be able to examine patients with halitosis from a comfortable distance. Ironically, his invention was rendered unnecessary by van Leuwenhoek's invention of a new mintyScope. Amply demonstrated by the 1925 Scopes trial is the fact that histology of biology is as susceptible to error as it is broad in scope."

Dick Lewitt
Science Information Editor
March of Dimes Birth Defects Foundation
White Plains, New York

OUTLOOK welcomes letters from readers. If there is sufficient response, we will begin a regular "Letters" section.

'20s

Alfred G. Henrich, '27, Los Angeles, has a private practice in surgery and is an assistant professor at Loma Linda School of Medicine. He has been treasurer of the Lutheran Hospital Society of Southern California for 35 years.

Walter M. Whitaker, '27, Quincy, Ill., was recently honored by the Chicago Pediatric Society for long service to pediatrics in Illinois.

James R. Amos, '32, Lebanon, Mo., received the Outstanding Alumnus Award from Southwest Missouri State University, the Silver Beaver Award for distinguished service to Boy Scouts, and was honored for service to dentistry as a result of his efforts for water fluoridation.

Walter E. Chase, '32, informs us that he has been enjoying his retirement for the past eight years. He was the only M.D. in a small town in Iowa for 33 years.

Courtney N. Hamlin, '32, Rockford, Ill., was one of the founders of the Rockford Clinic, which is now a 62-physician group.

Edward J. Kloess, '32, was in military service for over 30 years. Since retirement, he has been doing volunteer work with the Red Cross.

Issac Lorberblatt, '32, Deerfield Beach, Fla., writes us that his daughter, Dr. Phyllis Lorberblatt Kahn, has been re-elected to the Minnesota legislature for five successive terms as representative.

Donald M. Paton, '32, plans on returning to St. Louis for his 50 year class reunion. "Being alive," writes Dr. Paton, is his greatest accomplishment.

Donald J. Silsby, '32, Springfield, Mo., stopped doing major surgery three years ago, but continues hospital and office calls.

Alfred M. Tocke, '32, has been retired since 1980. He received the Distinguished Service Award of Merit from the College of Allergists.

Arie C. van Ravenswaay, '32, is enjoying skiing and scuba diving since retirement. Dr. van Ravenswaay was in charge of internal medicine in the Surgeon General's office at the Pentagon during WWII.

Harold M. Williams, '32, is City Health Officer, Ft. Worth, Texas; secretary, Texas Medical Association; editor-in-chief of Texas Medicine and chief-of-staff at Holy Cross Hospital in Austin.

Ellsworth H. Trowbridge, Jr., '36, writes that "Sun City, Arizona, is the cleanest and most pleasant place in America to live during one's senior years."

Lawrence E. Mendonsa, '37, assistant clinical professor (emeritus) at St. Louis University School of Medicine, has attended every annual clinical meeting of American College of Obstetricians and Gynecologists. Only seven of the 23,000 plus members have done this!

'40s & '50s

William B. Mize, '44, has retired from his practice in ob/gyn and is "enjoying the Florida life."

Frank Vellos, '46, moved to Atlanta in November and is director of surgical pathology at Emory University Hospitals.

Charles J. Jannings, '51, left Fairfield, Illinois, where he practiced for 27 years. Dr. Jannings is currently the associate director of the Southeastern Wisconsin Family Practice Residency Program.

Eric I. Anderson, '52, left his medical practice in California to raise raspberries, blackberries, blueberries and grapes in Squires, Missouri.

Cecil R. Auner, '52, is chief-of-staff at the Lester E. Cox Medical Center in Springfield, Missouri.

Richard V. Bradley, '52, St. Louis, is president of the Barnes Hospital Society and alternate delegate to the American Medical Association.

Gordon R. Heath, '52, has been in Lakeland, Florida, since completing his residency in pediatrics at St. Louis Children's Hospital in 1955.

Anne Dodge Hooper, '52, is associate professor of pathology at the West Virginia School of Osteopathic Medicine.

W. Dale Hooper, '52, is associate clinical professor of surgery at Marshall University Medical School, Huntington, West Virginia.

Grant Izmirlian, '52, is past president of the St. Louis Academy of Family Physicians, medical director of Friendship Villages and chairman of the Radio Committee, St. Louis Academy of Family Physicians.
Harry S. Jonas, '52, is Dean of the University of Missouri School of Medicine--Kansas City.

Robert Katims, '52, Miami, Fla., is president of the Dade County Medical Association and chairman, Board of Medical Examiners, State of Florida.

John M. Kissane, '52, St. Louis, wrote Pathology of Infancy and Childhood which is in its second edition. Dr. Kissane was the editor of three other books and a contributor to several more. He is the past-president of the Pediatric Pathology Club, and a visiting professor in Australia and Colombia.

Sherman O. Schacler, '52, is providing mental health care to those who cannot afford private care. More than 2,000 patients are treated weekly at his clinic in Brooklyn.

Arthur Berken, '57, has been promoted to clinical professor of medicine at Stony Brook. Dr. Berken is board certified in oncology and internal medicine. He is actively engaged in the practice of these disciplines with his group and in his teaching at the university.

Leonard S. Weiss, '57, Woodbury, N.Y., is a fellow of the Scoliosis Research Society and is on the executive committee of the Nassau County Medical Society.

Richard E. Bryant, '58, head of the Division of Infectious Diseases in the School of Medicine at The Oregon Sciences University, recently received the first Joseph Susman Memorial Award in Chicago. This award is given to the investigator whose studies made the greatest contribution to the understanding or management of surgical infection published in the journals of The American Infectious Diseases Society in the preceding year. Dr. Bryant's article, "Beta-Lactamase Activity in Human Pus," was published in the October 1980 issue of the Journal of Infectious Diseases.

Calvin C. Kam, '60, has been named president-elect of the Hawaii Medical Association.

John D. Rich, '62, was appointed chief of the plastic surgery service at Fitzsimmons Army Medical Center, Denver, Colorado.

David A. Williams, '62, is a radiologist at the Los Alamos Medical Center. He writes that he "takes part in most jogging events in the area, and is busy working with the local Boy Scouts since his sons are working toward their Eagle rank."

Robert H. Waldfman, '63, chairman of the Department of Medicine at the West Virginia University School of Medicine, has been elected to membership in the prestigious American Clinical and Climatological Association.

Hugh H. Tilson, '64, has joined Burroughs Wellcome as department head, product surveillance and epidemiology. Dr. Tilson will continue his adjunct professorships in the Schools of Medicine and of Public Health at the University of North Carolina at Chapel Hill.

Andrea C. Tongue, '66, is a clinical associate professor of ophthalmology at the University of Oregon Health Sciences Center.

Lynn M. Taussig, '68, Tucson, is currently professor of pediatrics and associate chairman, Department of Pediatrics at the Arizona Health Sciences Center. She informs us that she "recently completed a sabbatical—three months in Jerusalem and three months in Melbourne. "My entire family had a wonderful and educational trip," writes Dr. Taussig.

William N. Neubauer, '69, is currently in private practice of surgery in Tucson. He is chief-of-surgery at El Dorado Medical Center and vice president of Pima County Medical Society with an academic appointment at the University of Arizona Department of Surgery. He is also on staff at the Tucson Medical Center, St. Joseph's Hospital, El Dorado Hospital and St. Mary's Hospital.

George J. Brahos, '72, is a member of the American Board of Surgery, American Board of Thoracic Surgery and the Wisconsin Medical Alumni Association which gave him the Distinguished Teaching Award. He is in private practice in Columbus, Ohio.

Jane E. Brazy, '72, is the acting director of Nuclear Medicine at Vanderbilt University School of Medicine.

Charles F. Shield, '72, was appointed director of the Kidney Transplant Program at St. Francis Hospital in Wichita.

Eric Harder, '72, is director of the Gastrointestinal Division at Providence Medical Center in Seattle.

Dallas C. Long, '72, is involved in various groups to upgrade emergency medical services in Orange County, California.

Douglas K. Miller, '72, is developing health services research and doing research in primary care at St. Louis University.

Julian C. Mosley, '72, is president of the American Cancer Society in the North St. Louis area. Dr. Mosley is also a member of the State Cancer Board for both public and professional education and vice president of the Mound City Medical Forum.

C. Leon Partain, '72, is the director of Nuclear Medicine at Vanderbilt University School of Medicine.

In Memoriam

Walter C. Adams, M.D. '50 . . . . June 28, 1981
William E. Allen, Jr., M.D. FHS December 31, 1981
George A. Carder, M.D. '64 . . . November 24, 1981
David M. Freeman, M.D. '43 . . . January 17, 1982
Percy B. Newman, M.D. '07 February 28, 1982
David Rothman, M.D. '35 . . . . January 6, 1982
Samuel Schultz, M.D. '38 . . . November 30, 1981
James F. Standard, M.D. '36 January 23, 1982
View from the top of the parking garage at Audubon and Euclid shows two of the three construction projects under way in the Washington University Medical Center. The tallest structure is the new St. Louis Children’s Hospital, on the block between old Children’s and the Jewish Hospital nursing school. The lower and more recently begun project will be the new Clinical Sciences Building of the School of Medicine. Not shown is the expanded Jewish Hospital Parking Garage, north of the Clinical Sciences Building.

One wing of the Clinical Sciences Building will cross Audubon Ave. and adjoin the Wohl Buildings. Beyond the massive drill are piles being driven into the ground below the driveways to Wohl Hospital and the Wohl Clinics. In the background are the North Building and the McMillan roofline, and, just to the right, part of the Barnes Hospital East Pavilion.