Outlook Magazine, Summer 1983
Pancreas cells prepared by diabetes researchers at Washington University in St. Louis went into space aboard the space shuttle Challenger in August. It was the first time that living cells were sent aboard a space shuttle for biomedical experimentation.

While the shuttle orbited, a solution containing the canine pancreas cells was injected into a McDonnell Douglas electrophoresis device in the ship's cargo bay. Previous tests had led scientists to believe that the electrophoresis device could separate cells that produce insulin from other pancreatic tissue.

The Washington University medical school scientists involved in the project, Drs. David Scharp and Paul Lacy, wanted to obtain pure samples of insulin-producing cells for their research. Unexplained malfunctioning of this pancreatic cell subtype is thought to cause insulin-dependent diabetes which afflicts 1.5 million Americans. In addition to their efforts at characterizing the abnormal cells that cause diabetes, Lacy and Scharp are also conducting animal experiments to determine if transplanted beta cells—the specific cells that make insulin—can control diabetes in animals. They have used beta-cell transplants to control diabetes in rats and mice and are currently completing their initial series of transplants to control diabetes in dogs.

The ability to obtain large quantities of very pure beta cells by processing them in space would speed diabetes research and might bring beta-cell transplantation to human clinical trials sooner than would otherwise be possible, according to Scharp and Lacy.

Before the Challenger lift-off, Scharp and Lacy collected pancreatic tissues from several dogs. Using a special enzyme technique they developed, the scientists were able to break the pancreatic tissues into individual cells that could be kept alive and functioning in a special nutrient solution. The single-cell suspension prepared for this shuttle mission was frozen in liquid nitrogen and transported from St. Louis to Cape Kennedy. The cell samples were thawed and taken aboard the Challenger on the day before lift-off.

The continuous flow electrophoresis device, developed by McDonnell Douglas Astronautics Company, separates chemicals or cells suspended in liquid by subjecting the suspension to an electrical field. Under the influence of the electrical field and without the hindrance of gravity, the beta cells within the suspension would be "pulled away" from other kinds of cells, forming a separate stream to be recovered at the top of the electrophoresis chamber.

This effort at separating beta cells is one of many being completed under the auspices of a research agreement signed this summer by McDonnell Douglas and Washington University School of Medicine. The agreement fuses McDonnell Douglas' expertise in separating and purifying biological materials with Washington University's record of success in controlling diabetes through transplantation.

In previously published scientific articles, Scharp and Lacy have reported on methods they devised to thwart the rejection episodes that foil many transplants. Their methods for stifling rejection have been largely successful in previous animal experiments.

In view of this success, says Scharp, the research team anticipates that similar techniques should prevent rejection in humans. With this in mind, they are now turning their attention to the major problem of obtaining the large quantities of pure beta cells required for clinical transplantation. The long-range goal of this and other electrophoresis trials is to develop a dependable technology that can produce the needed cells.

Paul Lacy, M.D., Ph.D., is the Edward Mallinckrodt professor and head of pathology at Washington University. He is pathologist-in-chief at the Barnes Hospital and is on the medical staff at the St. Louis Children's Hospital and the Jewish Hospital of St. Louis. David Scharp, M.D., is an associate professor of surgery and serves on the clinical staff of the Barnes and St. Louis Children's hospitals, and the John Cochran Veterans Administration Medical Center in St. Louis.
Blossoms and sidewalk cafes are popping up around the Washington University Medical Center, now that warm weather is here. Ten years ago, there was barely a bud or bistro to be seen. The area was suffering from disuse, dilapidation, and "disinvestment." Owners were not fixing up and painting their homes, flats, apartments, and shops. Many were merely boarding up and locking up, letting everything run down. Retailers, manufacturers, families, even St. John's and Shriners hospitals were moving out. Vacancy rates were rising; population and employment dropping. Down lowest of all was attitude. In this area, as in others, the City seemed to be breathing her last gasp.

Today, this same area, and adjoining neighborhoods as well, are alive and growing. Washington University Medical Center ten years ago rolled up its sleeves, dug into its pockets, laid down a two-million-dollar line, and dared the forces of urban decay to cross it.

Stopping decay seemed almost impossible at the time — just slightly more possible, perhaps, than pulling up stakes and moving out to the county. But consider the "stakes" that would have had to be pulled: the School of Medicine, Barnes Hospital and nursing school, the Children's Hospital, Jewish Hospital and nursing school, all of the patient-care and research equipment. It was almost beyond imagination to abandon the McMillan, Maternity, Barnard, Rand Johnson, Mallinckrodt, and Wohl buildings, the relatively new Queeny Tower, the even newer Barnes Hospital East Pavilion, and the school’s McDonnell Medical Sciences Building — the whole amazing complex of structures and interrelationships that had been evolving since 1914 to be one of America's top ten medical centers. Could such a deeply rooted conglomerate, once disassembled, ever be reassembled as a true medical center in some suburban meadow?

The medical center board chose fight over flight and established the Washington University Medical Center Redevelopment Corporation, WUMCRC. The Center, and Civic Progress, Inc., invested $2.2 million in the corporation as working capital for buying properties, assembling redevelopment tracts, and attracting developers, rehabilitation firms, and investors. The corporation was chartered in 1975 to operate under Chapter 353 of Missouri's urban redevelopment corporation law, which provides long-term tax abatements, a variety of financial incentives, and the right of eminent domain. WUMCRC has been successfully overseeing redevelopment and new construction in the 280-acre, 38-block area bounded generally by Manchester Avenue on the south, Kingshighway on the west, Lindell and Boyle on the north and east.

WUMCRC started from a base of excellent and diversified architecture and old-time craftsmanship in a neighborhood of solid homes, good churches, shops, and offices — all declining but not yet dead. It banked on such community cornerstones as the Chase-Park Plaza Hotel, the St. Louis Cathedral and archdiocesan headquarters, St. Nicholas Greek Orthodox Church, nearby
Unique Two Story Townhouse Units
Historic Register Designation Pending
Developed by E.W. Ellermann, Inc.
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WUMCRC's efforts helped attract restaurants and diners to the once deteriorating area. Sidewalk cafes are popular with neighborhood residents and medical center staff and visitors.

mansion-lined private streets, Forest Park and the adjacent St. Louis Community College, and the St. Louis College of Pharmacy and Washington U. School of Dental Medicine which adjoin the medical center. And WUMCRC hoped for a synergistic spark of interaction with adjacent redevelopment programs.

WUMCRC is one of a dozen or so neighborhood and historic redevelopers active in the city, and its area adjoins the Midtown Redevelopment Corporation and St. Louis University Medical Center, the resurgent Central West End, and the popular residential and commercial efforts of Pantheon Corporation to the west, north of Lindell, and to the east around the Fox Theatre on Grand Avenue. WUMCRC's redevelopment is the city's first success story of a privately funded umbrella developer attracting private investment in a mix of new and rehabbed facilities for residential, commercial, industrial, and institutional uses.

The National League of Cities' publication, Dollars From Design, released in 1982, featured WUMCRC's work as one of the five outstanding urban conservation and redevelopment efforts in the country. The publication cited WUMCRC's use of state legislation allowing tax abatement for developers, its management to streamline the development process for both corporate builders and individual homeowners, and its involvement of established residents, planners, architects, investors, and city officials as partners in the revitalization program. In addition to gaining federal grants and using them to attract private investment, WUMCRC has garnered local and national planning and design awards.

The WUMCRC neighborhood now has nearly 400 new housing units, many on a long and visually impressive stretch of Laclede Avenue. On that street are the mid-range Laclede East Condominiums, east of Newstead; the elegant new Wexford Condominiums, and The Chouteau Condominiums in four 1909 buildings rehabbed to luxury three-bedroom
condos. The WUMCRC neighborhood also includes 300 subsidized rental apartments for senior citizens, the Paraquad housing complex for independent living for the disabled, and a variety of new and redeveloped homes, duplexes, flats, and apartments, indicating growth in homeowner reinvestment scattered throughout the area. The overall rate of occupancy is estimated at 97 per cent.

In this and the adjoining portions of the Central West End, where median housing values adjusted for inflation have risen 66 percent in the past ten years, restored and remodeled professional offices are opening, along with a new bank and a savings-and-loan, shops and galleries, restaurants and gourmet food stores. Work is underway to the north on a major supermarket and a multi-screen movie theatre — strong signs that the once crumbling city region is a good marketplace now, with bright prospects for the future.

Part of that marketplace is the WUMCRC area, where the five-year-old $12 million headquarters of Blue Cross provides 1,200 jobs; where Monsanto built a sophisticated, $12 million toxicology lab; and where Barnes Hospital opened its new, elegant West Pavilion. A total of 15,000 jobs are in the WUMCRC area alone, with more to come as construction concludes on the 383,000 sq. ft., 10-story Clinical Sciences Research
Building of the School of Medicine, the new St. Louis Children’s Hospital, and the renovation of the old A&P warehouse for more medical school facilities. Since 1975, an estimated $268 million has been expended in new construction by the Medical Center institutions.

The medical center itself accounts for approximately $160 million in annual salaries. Every day, nearly 11,500 people come to work—teaching 2,500 students, caring for 161,000 outpatients and 330,000 hospital patients per year. The center’s economic impact in the purchase of food and equipment, utilities, supplies and furnishings for the hospitals, clinics, classrooms, dormitories, offices, and laboratories affects the entire metropolitan area. Every year, more and more of the employees, faculty, postgraduate trainees, interns, and residents are drawn to set up housekeeping and to enjoy city life near the medical center.

The WUMCRC is sharpening its focus now on Gibson Heights, a residential area just south of Highway 40, with well-built brick and stone homes and duplexes, and several neighborhood churches. Homeowners and small developers have invested nearly $8 million in rehabilitation in Gibson Heights, with 100 units being reheded during 1982 by a private developer in partnership with the Midtown Neighborhood Housing Corporation, a neighborhood organization.

In the WUMCRC area, $2 million has been spent in public improvements—street improvements, lighting and landscaping. By the end of 1985, there will be 200 to 300 more new or rehabbed dwellings, and a total private investment exceeding $80 million. Combined with investment by the medical center institutions, the total development will reach nearly $400 million.

In the WUMCRC area, and the adjoining Central West End, people are moving in, and they are of all races and economic levels—judges and journalists, architects and artists, physicians, professors and pubkeepers, managers, laborers and craftsmen. You can see them along the streets with their families and friends, stopping for hot dogs, knishes, cookies, ice cream; buying thrift-store bread or imported wine and cheese; shopping the factory outlets or fashion boutiques; washing their cars or tending their flowers; enjoying the sidewalk cafes, the pubs, the seemingly numberless ethnic restaurants.

Urban decay is giving way to urban revitalization, good design and good management. The work which WUMCRC proved could be done during the past decade needs to continue. Where once WUMCRC stood alone, its efforts have been joined by many investors, owners and developers, drawn to the city by WUMCRC’s remarkable ten-year turnaround.

In Gibson Heights, south of the medical center, single-family homes, duplexes, and four-flats are being repaired, repainted, and restored by owners and investors.
The Washington University Medical Center neighborhood is now a bustling blend of old and new homes, shops and offices. Above, a restored home displays its own portrait in stained glass. Above right, the ultra-modern offices of Sun Gellman Graphic Design are housed in the building below right, once a fine residence but more recently a boarded-up boarding house. Below is a view of Empanadas sidewalk cafe on Euclid.
It is almost worse than getting into medical school — this business of getting out of school and into residencies. Some years, the graduating class fills Cori Auditorium with hushed excitement and a mass munching of fingernails. Not the Class of '83, however.

Even the admittedly nervous looked calm, sipping sodas, smiling and slouching casually in their seats. The acutely confident showed up in sky-blue T-shirts custom-printed by a classmate with “FYBIGMI,” the last four letters standing for “I Got My Internship.”

Envelopes holding the long-sought contracts (results of a nationwide computerized program to match medical school students with internships and residencies) lay in alphabetical order across the apron of the stage, while class president Steve DeWitt addressed the class.

“The program that paid for my medical education, the National Health Service Corps, has been drastically reduced,” DeWitt said. “But I am delighted to tell you that the Horncrest Foundation has recently awarded the School of Medicine a matching grant of $20,000 a year for the next five years to establish a revolving loan fund for medical students here. In order to receive this award, we must match their support, dollar for dollar.”

DeWitt continued, “Our alumni have always been very generous to the school, supporting endowed professorships and buildings. But those who have been out of school for several years do not understand the severity of the problems today’s medical students face. They have not experienced the extent of our requirements for need-based financial aid.”

So, DeWitt asked the class to pledge toward the matching grant. “Pledge some kind of donation for the next year,” he urged, “even if it is only ten dollars. Surely you can imagine having ten dollars extra sometime next year.” Many in the audience laughed wryly.

Undaunted, DeWitt continued, “I want to be able to tell the Alumni Association next year that 90 percent of my class pledged to this need-based financial aid matching grant.” The Alumni Association will match the class pledge amount. DeWitt told his classmates to expect a letter and pledge card in the mail, followed by phone calls from volunteers. DeWitt also expressed gratitude to Associate Dean John Herweg, M.D., for working with the Alumni and Development office on the matching grant, and concluded by saying: “We had the opportunity to go to this school without extreme financial difficulties. With many federal programs of financial assistance now eliminated, next year’s entering class won’t be able to make that statement unless we help. We should pass along to others some help in securing the opportunities we have had.”

DeWitt introduced and thanked staffers Phyllis Feagans and Lydia Swystun for coordinating the national Match Day program. The applause was loud and long. DeWitt then turned the podium over to Assistant Dean John Vavra, M.D., who told the assemblage that 107 of the 125 members of the Class of ’83 had participated in the matching program, and that 85 percent had matched within their top three choices. “Half of you in the program matched with your first choices,” Vavra said. “Half of the class will stay in St. Louis.” Half of the class cheered. Vavra explained how to locate the long-awaited contracts neatly arrayed on the stage. And then, the results became known. The Class of ’83 will head for 26 states and go on in the following specialties:

- Internal Medicine, 68;
- Pediatrics, 9;
- Flexible, 8;
- Pathology, 8;
- Obstetrics & Gynecology, 6;
- General Surgery, 9;
- Preliminary Surgery, 2;
- Orthopedic Surgery, 2;
- Psychiatry, 3;
- Anesthesiology, 2;
- Diagnostic Radiology, 3;
- Family Practice, 2;
- and Pediatrics/Medicine, 1.

A total of 38 new physicians will remain at Washington University Medical Center, and 13 others will be at four other St. Louis area medical centers and hospitals.

Sodas and smiles characterized the Class of '83 on Match Day.
For Tom Prater, Robb Ohtani, and Casey Younkin, Match Day is anticipation... shared with old friends... who will go their separate ways.

**ARIZONA**
Phoenix
Good Samaritan Hospital
   Dana Kellis, Internal Medicine
Tucson
   Tucson Hospitals
      Douglas Munro, Flexible

**CALIFORNIA**
Los Angeles
   Los Angeles County–University of Southern California Medical Center
      Mark Riganis, Psychiatry
   University of California, Los Angeles
      Daniel Spalte, Internal Medicine
      Oakland
         Oakland Naval Regional Medical Center
            Brian Aprill, Internal Medicine
San Diego
   U.S. Naval Regional Medical Center
      William Horstman, Surgery
Sepulveda
   Veteran’s Administration Hospital
      Gregory Jenkins, Preliminary Medicine
Stockton
   San Joaquin General Hospital
      David Moitoza, Flexible

**COLORADO**
Denver
   Presbyterian Denver Hospital
      Helen Kilzer, Internal Medicine
      Presbyterian-St. Luke’s Medical Center
         John Smith, Flexible
   University of Colorado Affiliated Hospitals
      Mark Boothby, Internal Medicine

**CONNECTICUT**
Waterbury
   Waterbury Hospital
      Roger Sullivan, Internal Medicine

**HAWAII**
Honolulu
   University of Hawaii
      Steven DeVitt, Internal Medicine

**ILLINOIS**
Chicago
   McGaw Medical Center
      Keith Shulman, Internal Medicine
   Michael Reese Hospital
      Daniel Ballin, Internal Medicine
      Mitchell Blatt, Internal Medicine
      David Carpenter, Internal Medicine
      Wayne McCormick, Internal Medicine
      Michele Pearson, Internal Medicine
      David Puchalsky, Internal Medicine
      Donald Wilkerson, General Surgery
   University of Chicago Clinics
      Andrew Davis, Preliminary Surgery
      Kenneth Morton, Preliminary Medicine
      Brian Scanlan, Diagnostic Radiology

   Evanston
      McGaw Medical Center
         Irene Lipinski, Primary Medicine
         Gary Plotke, Primary Medicine

   Assistant Dean John Vavra, M.D.

**INDIANA**
Indianapolis
   Indiana University Medical Center
      Jerry Johnson, Pediatrics
      Andre Strzembosz, Internal Medicine
   LOUISIANA
   New Orleans
      Tulane University Affiliated Hospitals
         Gregory Collins, Preliminary Surgery

**MARYLAND**
Baltimore
   University of Maryland Hospitals
      Dana Wollney, Pediatrics

**MASSACHUSETTS**
Boston
   Children’s Hospital
      Christine Parker, Pediatrics
   Springfield
      Baystate Medical Center
      Kenneth Horwitz, Internal Medicine

**MICHIGAN**
Ann Arbor
   University of Michigan Affiliated Hospitals
      Jonathan Hall, General Surgery
      Hokyun Yi, Internal Medicine

**MINNESOTA**
Minneapolis
   Hennepin County Medical Center
      Mark Fay, Flexible
   University of Minnesota Hospitals
      Robert Kramer, Orthopedic Surgery
      Arthur Krieger, Internal Medicine
      Paul Lambie, Internal Medicine
   Rochester
      Mayo Graduate School of Medicine
      Thomas Chelimsky, Internal Medicine

**MISSISSIPPI**
Biloxi
   Keesler Air Force Base
      John Harsch, Internal Medicine

**MISSOURI**
St. Louis
   Barnes Hospital
      Michele Bloch, Pathology
      Mark Cohen, Internal Medicine
      Jane Corteville, Obstetrics & Gynecology
      William Dunagan, Internal Medicine
      Neil Ettinger, Internal Medicine
      Edward Fry, Internal Medicine
      Carl Fulwiler, Internal Medicine
      John Hamm, Internal Medicine
      J. Randall Hansbrough, Internal Medicine
      John Harsch, Internal Medicine
Lisa Hyman brought a basket-bound bouquet of bagels to Match Day, and sported an optimistic 'Nashville, Here We Come' button for her fiance, Jason Morrow. With the young couple are his parents, Professor and Mrs. Ralph E. Morrow. Morrow is Dean of the Faculty of Arts and Sciences. Jason Morrow matched to his first choice, Vanderbilt.
Kenneth Moore and his wife and daughter check the list to learn where their friends will be going after graduation. Moore matched with his first choice, Albert Einstein Medical Center in Philadelphia.

David Melamed, General Surgery
Benjamin Schwartz, Pediatrics

Columbus
Ohio State University Hospitals
Robb Ohtani, Obstetrics & Gynecology

Youngstown
Youngstown Hospital
Stephen Klem, Flexible

OREGON
Portland
Good Samaritan Hospital
John Hills, Preliminary Medicine
Oregon Health Sciences University
Michael Fortune, Pathology

PENNSYLVANIA
Philadelphia
Albert Einstein Medical Center
Kenneth Moore, Pediatrics/Medicine
Hospital of the University of Pennsylvania
James Malter, Pathology
Marvin Natowicz, Pathology
Thomas Jefferson University
Steven Feinstein, Internal Medicine

Pittsburgh
University Health Center of Pittsburgh
Robin Jones, Internal Medicine

SOUTH CAROLINA
Charleston
Medical University of South Carolina
Thomas Ewing, Family Practice

TENNESSEE
Nashville
Vanderbilt University Affiliated Hospitals
Jason Morrow, Internal Medicine

TEXAS
Dallas
University of Texas S.W. Affiliated Hospitals
Katherine Parker, Internal Medicine

Houston
Baylor College of Medicine
Bryan Eggert, Internal Medicine
University of Texas Affiliated Hospitals
Vickie Shannon, Internal Medicine

Mark Ravenscraft and Dawn Groten.

VIRGINIA
Charlottesville
University of Virginia Medical Center
Mark Austin, Pathology

Portsmouth
U.S. Naval Regional Medical Center
Keith Hansen, Obstetrics & Gynecology

WASHINGTON
Seattle
University of Washington Affiliated Hospitals
Deborah Jenkins, Anesthesiology
Jonathan Tait, Pathology
Virginia Mason Hospital
Mark Selland, Internal Medicine

Spokane
Inland Empire Hospital
Craig Roberts, Family Practice

WASHINGTON, D.C.
Children's Hospital National Medical Center
Janie Cox, Pediatrics

WISCONSIN
Madison
University Hospitals
Brian Fiedler, Diagnostic Radiology
I am honored to have been asked to participate in these commencement festivities and to be among the first to greet and congratulate you as physicians.

It is impossible for me to keep from reminiscing at a moment like this. Although my medical school commencement was not long ago (15 years doesn’t seem so long anymore), the progress in medicine and health care has surpassed by far the dreams my classmates and I had in 1968. Smallpox is now a disease in history. Large measles outbreaks in the U.S. are so rare as to be newsworthy. We are so accustomed to the explosion of technology that laser surgery and heart transplants no longer lead the news.

The infant mortality rate for the U.S. in 1968 was 21.8 infant deaths per thousand live births; the rate for blacks being 36.2, and the rate for whites, 19.2. It is now 11.2 per thousand for the nation. Although discrepancies based on income, ethnicity, and social status remain, this decrease is a tremendous accomplishment.

Today, approximately a thousand community health centers are caring for the underserved, whereas there were but two in 1968. Nearly 3,000 National Health Service Corps (NHSC) assignees are providing a significant portion of this care, and 7,000 NHSC scholarship recipients are preparing to follow them.

Yes, medicine and health care have come a long way and have grown. Whereas 88 medical schools were holding commencement ceremonies late in May in 1968, today 128 are doing so. I had 9,900 classmates nationwide; you have 17,000. My class was nine percent women and 3.6 percent minority. In your class, 31 percent are women and 10 percent are minority.

This growth has led many to ask: how many physicians are needed to meet the U.S. health care needs, and what is the most appropriate specialty distribution of these physicians?

In 1976, the Graduate Medical Education National Advisory Committee, GMENAC, was formed. The need for such a committee was recognized by the Congress and the Administration during the debates on health manpower legislation in 1974 and 1975. GMENAC’s purpose, broadly defined, was to advise, consult with, and make recommendations to the Secretary of Health and Human Services on strategies to achieve an appropriate number of physicians in each specialty, to assure adequate financing for graduate medical education, and to achieve proper use of other categories of complementary manpower.

The major findings of the committee, reported in 1980, were that by 1990 there would be 70,000 too many physicians in the U.S. The supply of physicians will have increased by 80 percent over 1968 levels. There will be one physician for every 456 persons, compared with one for every 694 in 1968. The 1990 supply is double that considered adequate by GMENAC to meet minimum health care needs; it is seven times the figure currently used in designating health manpower shortage areas. This supply of physicians will continue to grow so that in 2000, there will be 642,000 physicians, a 117 percent increase over the 1968 level. During this period, the national population will have grown by only 30 percent.

In pediatrics, projections were difficult to determine, primarily because of the lack of data on subspecialists. After considering the information available on general pediatrics and its subspecialties, the best projections for the field held it to be in “near balance.” The report shows a small surplus in general pediatrics, and a small shortage in pediatric subspecialties. However, there is a wide range of variation for all of these figures.

GMENAC concluded that there would be small surpluses in general practice and family practice, and in...
Graduates listened intently to Noonan's data on shortages and surpluses expected in the 1990s and beyond.

General internal medicine, but again considered these specialties to be roughly in balance for 1990. All of the subspecialties of internal medicine will be oversubscribed, according to GMENAC, except hematology/oncology and gastroenterology. The greatest surplus will be in cardiology. General surgery and virtually all surgical specialties will be in surplus by 1990. Indeed, GMENAC reported that a surplus of more than 20,000 physicians would be accounted for by general surgery, ophthalmology, and orthopedic surgery.

In obstetrics and gynecology, projections were much more difficult to agree upon. The supply of midwives and nurse practitioners in ob/gyn can lead to a difference in the need for obstetricians of from 4,000 to 6,000. GMENAC's estimate, however, was that there would be 10,000 too many ob/gyn physicians in 1990. Evidence already appears that more ob/gyn residents wish to subspecialize than there are fellowships for them.

In contrast to the foregoing specialties, in which surpluses are projected, the committee tells us that in 1990 shortages will occur in emergency medicine, preventive medicine, and general and child psychiatry. Physicians in 1990 are expected to keep their practices accessible for longer hours, enabling them to see patients who, today, would be treated in an emergency room. But a small shortage of physicians trained in emergency medicine is expected.

In preventive medicine, where half of the physicians deliver public health services, the shortage will again be small. This judgment, too, was arrived at with difficulty because of the conflicting definition of the specialty and because preventive medicine is only a part-time activity for many physicians in other specialties.

In surveying specialties in 1990, we witness a deluge which, if the projections are true, crests in surgery and recedes with internal medicine and pediatrics. Preventive medicine hints of dryness, but the drought will be in psychiatry.

This country will need nearly 13,000 psychiatrists by 1990 — 8,000 for adults and 5,000 for children. An area with a ratio of less than one psychiatrist per 20,000 population can be designated a shortage area. The projections indicate that there will be only one child psychiatrist for every 60,000 children in 1990.

Deluge or drought? We have seen the landscape. How do we determine its effect on us? If you and I are at all alike in problem solving, the first thing we do is to question GMENAC's method of arriving at these startling conclusions.

In its initial attempts to project numbers of specialists, the committee ran into many roadblocks. They found that the existing data on physician residency programs did not relate to what doctors do in their practices, and were inadequate for public policy analyses. No data linked training and practice on a disease-specific basis. No data linked physician utilization and physician supply. The committee, therefore, had to develop and test models for forecasting future physician supply and requirements.

Expert specialty panels were established to address these problems.

Models of physicians' behavior were developed and tested. U.S. and foreign physicians who had graduated from domestic and foreign schools as of 1978 were included. Mathematical models, intended to replicate the switching behavior of physicians between specialties, were considered and adopted when appropriate. The GMENAC study was not being carried out in a vacuum. Additionally, other studies were made by other groups, all with varied conclusions on the magnitude of the surplus expect-
ed. In summary, conclusions of these studies indicate an aggregate surplus of physicians in 1990. It may be as small as 30,000 or as large as 150,000.

My next question would be: how are these problems being addressed? The committee recommended that the number of medical students be decreased, that the entry of foreign medical graduates be curtailed, and that the appropriate number of non-physician health-care providers to be trained be reassessed. It cautioned, however, that the number of minorities in medicine not be thwarted.

Let us look with caution at some of the changes in these areas, remembering that their evolution is difficult to attribute to GMENAC, or to government, to institution or to specialty board policies, or to the vagaries of individual student or professional actions.

After years of increase, the number of enrolling medical students has stabilized. Federal funds which had been made available to medical schools based on the number of enrollees were gradually reduced and eliminated. Construction funds for medical schools have been eliminated, and have not been replaced by other government sources to any great extent, leaving the schools to look for private resources, including tuition.

Tuition costs have increased to the extent that many non-medical professions are appearing to be more rewarding. Medicine is losing the talented people whom it had previously attracted. Consequently, the number of medical school applicants has decreased 15 percent since 1974.

The number of first-year medical school enrollees in 1982 decreased for the first time in 20 years. This was true for both total enrollees and for black enrollees as well. Is this the stabilization that GMENAC called for?

Before 1977, non-American foreign medical graduates were allowed to obtain residencies and to practice in the U.S. in large numbers because physicians here were thought to be in short supply. Foreign practitioners were, therefore, granted preference under the immigration laws and policies. Since 1977, however, hospitals have been able to provide residency slots to non-Americans only if they could prove that substantial disruption of services would result from not doing so. The number of non-Americans occupying residency positions dropped significantly, and the rate at which these physicians are being matched to first-year residencies is declining sharply.
The pattern of the returning foreign-trained U.S. citizens is also changing. While their number has grown rapidly in recent years, their success in being matched to residencies is declining. A further decline is expected after July 1984, when all foreign-trained physicians will be required to pass an examination equivalent to Part I and Part II of the National Boards.

The re-evaluation of the training of nurse practitioners, physicians assistants, and midwives continues. The numbers being trained have remained stable or declined slightly over the past several years. It is impossible to predict future levels, but there is no indication of an imminent decrease of any proportion.

There are other recommendations of GMENAC to which I would like to call to your attention. One is that to minimize disruption, no specialty or subspecialty should increase or decrease its number of first-year

The honorary society Alpha Omega Alpha initiated 21 new members, 20 of whom assembled for this portrait. In the front row, from left to right, are: Drs. Carl Fulwiler, Neil Ettinger, Ethan Haskel, Kathy Parker, Mark Boothby and Lynn Seacord. In the second row: Drs. Christy Parker, Robert Benedett, William Dunagan, James Clonahan, Hazel Vernon, and Sandra Hofmann. Standing, from left to right, are Drs. John Harsch, Thomas Hubbard, Benjamin Schwartz, Daniel Spait, Thomas King, Mark Stark, James Schwob, and Daniel Lips.

A total of 25 named awards were won by 34 students, 20 of whom regrouped after the ceremonies for this portrait. In the front row, from left to right, are: Drs. Robert Swarm, Carol North, Christine and Katherine Parker, James Clonahan, and Jason Morrow. In the second row are: Drs. Carl Fulwiler, Mark Stark, Sandra Hofmann, Ethan Haskel, Lynne Seacord, and Anat Feingold. Standing from left to right are: Drs. John Hills, Craig Roberts, Donald Wilkerson, Daniel Lips, Andrew Davis, David Epstein, Edward T.A. Fry, and Jonathan Jantz.
trainees by more than 20 percent by 1986. The response to that recommendation is that the numbers of positions for first-year residents (which increased annually until 1980 and remained at about the same level for 1981 and 1982) have decreased slightly for 1983. This decrease can be seen in all specialties except internal medicine.

Another recommendation is that medical school graduates should be strongly encouraged to enter specialties where a shortage is expected, or to enter the primary care specialties, general pediatrics, internal medicine or family practice. Support of the National Health Service Corps, family medicine departments in medical schools, and continuing support for primary care and preventive medicine residencies indicate continuing federal concurrence with this recommendation.

A final recommendation was that medical students should be encour-

Vickie R. Shannon, M.D. ‘83, is the 100th black graduate of Washington University School of Medicine. She was interviewed by Al Wiman of KMOX-TV, Channel 4 in St. Louis. (A story about minority medical education at WUMS will appear in the Autumn ‘83 issue of Outlook Magazine.)
aged to practice in underserved areas, both urban and rural. The National Health Service Corps is the major federal vehicle for carrying out this objective. Corps assignees can practice only in federally designated shortage areas, urban or rural, or they may practice in the Indian Health Service. There is much evidence of cooperation from the private sector in meeting this objective. Nearly 1,000 NHSC assignees are practicing privately. We foresee further strides in this area because of the partnerships of the federal and state governments with the private sector.

We have looked at this question of a physician surplus in hopes of helping you to prepare for your future practice. I have pointed out that by 1990 there will be at least an adequate number of physicians, and probably a national surplus. The effect of this surplus on you will depend on many factors in addition to the specialty you chose or have chosen. Geographic location, the needs of particular population groups, policy changes by specialties, changes in patterns of utilization of nurse practitioners and midwives, the trend toward increased personal responsibility for health care, and the increasing focus on preventive health care all play major roles.

It will become imperative for physicians to recognize the role of other members of the health care team. For you to practice, you will have to work with nurse practitioners, midwives, social workers, and health administrators. In many instances, their decisions will supersede yours. That will be reality.

The format of health care practice will change. Surgi-centers, for example, are already increasing — many think in response to the physician surplus.

Many aspects of medical practice will remain the same, however. Medicine will continue to be a "political" profession. You will have the opportunity to develop health policy in working with your peers in the local medical society, or presenting to your school board a sex education curriculum in such a manner that adopting it will seem logical. Politically astute physicians will continue to play major roles in persuading governments to enact and implement health programs beneficial to large segments of society.

Because your career will be affected by our growing numbers, there are, I believe, actions essential for you to consider. First among these is the continuing pursuit of excellence. To be an excellent physician is a life-long, energy-consuming task. But in medicine, excellence is recognized and rewarded — with independence to pursue the activities of your choice and calling. Second, monitor information on health manpower. By keeping up to date on information about projected surpluses and shortages, you will be able to make informed career decisions. Third, should you be in the position of choosing a specialty, consider one in which there is a shortage or a projected shortage.

I remind you of psychiatry because the shortage is so great. And I remind you of public health, also because of the shortage and especially because it is my first love. A career in public health affords a physician the opportunity to help resolve mankind’s greatest problems — infant mortality, over-population, pollution, mental health, environmental contamination.

By 1990, there will be only one child psychiatrist for every 60,000 children — a shortage.
Public health physicians are even playing lead roles in informing the citizens of the consequences of nuclear war.

I always think of practice in underserved areas as part of public health, although it may not necessarily be. Practice in rural areas or inner cities, on Indian reservations, in migrant health centers or prisons or mental institutions can be a great challenge, and can bring even greater awards. I urge you to keep these options in mind.

Above all this, remember who you are, henceforth. You are a physician. You are the person whom society has trained to teach it how to prevent illness, to rely on in illness, and to deal with pain. People will come to you with their physical and psychological pain. People will honor you for being a physician. I urge you to see these many and varied individuals not only as patients, but also as fellow travelers on the human voyage.

No one, not even a practicing physician, can tell you the effect of this responsibility on your life. You will have to fight to steal time for yourself. You will always be working above and beyond the call of duty. You will swell with pride when you can assure a leukemic child that her disease has been conquered. You will sob when the man whose life you have been working to save in the cardiac care unit for 48 hours suddenly perishes. You will always have this feeling deep inside — I am spending my life in the best way I can. I am a physician.
the State of the Medical Center

by Samuel B. Gaze, M.D.

President, Washington University Medical Center

(Samuel B. Gaze, vice chancellor for medical affairs and president of the Washington University Medical Center, spoke to WUMC alumni and alumnas at Reunion '83 in May. This article is based on his remarks.)

Washington University Medical Center faces some major, unprecedented problems — problems we share with nearly all other university medical centers. We have historical strengths to meet these problems, and we have made some interesting innovations that should also help.

Our location, which worked so well for us in the past, is no longer the advantage it used to be. In the evolution of Metropolitan St. Louis, as in the evolution of most other major metropolitan areas where university medical centers are located, the population has shifted toward the suburbs. These shifts began approximately 30 years ago, slowly gained momentum, and in the past 15 years have become very intense. In 1950, for example, the population of the City of St. Louis was 850,000. In 1980, it was under 450,000. (Some people moved out of the city and into the adjacent counties; people also moved out of the state and into "The Sunbelt." The center of population in this metropolitan area is now near the intersection of Highway 40 and Lindbergh Boulevard, 12 miles west of us.

Concurrently, private hospitals and private doctors' offices have moved from the city and inner suburbs to the newer areas further west. St. Louis has experienced one of the largest out-migrations of hospital beds and doctors' offices of any major metropolitan area. This medical center is no longer considered convenient by some physicians and patients in the west county. Consequently, they choose our medical center hospitals only when they require an extraordinary level of care. As a major tertiary care center, however, we see a disproportionate number of very sick patients with very complicated problems. For the most part, the care they require is more costly than most reimbursement mechanisms allow.

In addition to shifting demographics and greater competition, there are the rapidly escalating costs of medical care, and the increasing resistance to such increases on the part of patients and insurers. As an academic health center, we incur unusual costs associated with our educational and research programs. The Federal government has decided that it can no longer afford to support its share of this growing expense so as to keep up with inflation. We have never received state support for these programs. Industry and, sometimes, labor are exerting pressure on third-party payers to combat rapid increases in the costs of medical care. New rules and regulations are in place, others are in the offing. There is a great deal of pressure on the entire health care industry, but academic medical centers are particularly vulnerable to some of these pressures. We tend to have higher costs; we tend to treat sicker patients; and we tend to receive a disproportionate number of the medically indigent, especially the very sick medically indigent. Last year alone, Washington University Medical Center provided nearly $54 million in unreimbursed medical care.

In the history of this medical school and medical center, we find some important strengths that can help in meeting future challenges. The first phase of this history began with the Flexner revolution and continued into the early 1950s. During that 40-year span, important changes were instituted which enabled us to become a nationally recognized medical school and medical center. Robert Brookings, who was president of the Washington University corporation, paid attention to Abraham Flexner's report about the medical school, and heartily espoused the recommended changes. Brookings
also knew that a great deal of financial backing was necessary to implement Flexner’s suggestions. Brookings involved many of his friends and associates in the business community, and succeeded in getting them to make major contributions to the medical school and Barnes Hospital. These gifts, plus the reorganization, set into motion a chain of events which led to outstanding physicians being attracted to our faculty and hospital staffs.

Attracting and holding distinguished faculty put us in a strong competitive position for the next phase of our history — the "golden era" of growth in the National Institutes of Health. This began in the early 1950s and lasted for nearly 20 years. Washington University School of Medicine has been one of the national leaders in responding to the challenges and opportunities made possible by the growth of the NIH. During this period of astounding development in biomedical sciences, our school played a national leadership role. Nine Nobel laureates in the 1960s and 1970s either trained here or were on the faculty prior to receiving their Nobel prizes, joining the ranks of our four Nobel laureates in the 1940s and 1950s.

During the past decade, because of national and international economic forces, the growth of the NIH and ADAMHA research budgets slowed so that they failed to keep up with the rate of inflation. Our faculty is very competitive and has been acquiring a growing share of research funds. However, the total funding for research, corrected for inflation, has declined. In essence, we are competing better for less.

To gain a perspective, consider these facts. When I became vice chancellor in 1971, 70 percent of our operating budget was carried by federal grants. This year, federal grants amount to approximately 35 percent of our budget. As research funding declined, income from patient-care activities became more important in the medical school’s operating budget. A major part of our income from patient care has been devoted to academic programs — our teaching and research. For example, in about a year the Clinical Sciences Research Building will be completed. Almost half of the cost of the building will be funded by retained surpluses, largely made possible by patient care activities over the past 10 years. In addition to that $25 million, we have spent during the past decade approximately $20 million on major renovations of laboratories and purchases of major equipment. We are proud of these accomplishments; we also realize that it will be much more difficult, and perhaps impossible, to repeat this in the next 10 years.

To summarize our history — during the first phase, private gifts were the key to success. In the second phase, the growth of federal grant dollars became the most important factor. As federal dollars declined, income from patient care activities became preeminent. With the shifting demographics in the metropolitan area, and with increasing pressure for cost containment in patient-care activities, my concern for the future is easy to understand.

For the school, historically, tuition has been approximately four percent of our total income. For many years, we tried to peg our tuition near the juncture of the bottom third and the middle third tiers of other private medical schools. A few years ago, we discovered that we were at the bottom. We had been continuously raising our tuition, but at nowhere near the rate of other private medical schools. For the future, we plan to maintain tuition income at four percent, at the least. There will be further tuition increases during the next few years. However, from what I hear around the country, our tuition will continue to be competitive so far as private schools will be concerned.

There are several schools now with tuition approaching $20,000 per year. Many are in the $16,000 to $20,000 range. Our tuition for next year, approximately $9,000, is very low by comparison. It is still very, very hard for our students and their families. We worry about the fact that most of our students receive some form of financial aid. We are seriously concerned about the substantial debt that so many of our students accumulate by graduation day. We are, and will continue to be, a national medical school. Class after class here includes students from 40 to 45 states, and usually one or more foreign countries. We continue to be able to attract many of the ablest students in the country.
We must continue to be a top national medical school. We must consider how we can maintain our patient-care activities against demographic shifts. We must become more efficient in managing our resources so we can compete in the environment of cost containment. We must generate new funds for research. And we must re-establish the relative importance of endowment in our operating budget. As part of the new fund drive, The Alliance For Washington University, announced on May 2, the medical school hopes to increase its endowment so it can regain its importance in our operating budget. We must also establish new sources of funding, and we have already taken first steps.

These are research partnership agreements with industry. I believe the mechanisms we have implemented with Monsanto and with Mallinckrodt are noteworthy. They protect the academic priorities of the University. They provide for future financial benefits if any commercially viable products are developed. They assist major St. Louis corporations with which the University has had many and varied interactions in the past.

The generosity of the Mallinckrodt and Monsanto-Queeny families to this University has been crucial to both of Washington University's campuses.

We have worked for several years building a common understanding between our scientists and the industry scientists. We have identified what is important in their culture and what is important in our culture. Their people and our people know that in order for us to be important to them, and perhaps to other companies, we must preserve our scientific and professional integrity. We all also know that the corporation is in business to make money and participate in the prosperity of the St. Louis economy and the national economy.

Our research partnerships can be construed as setting up "institutes," similar to the NIH. The "Monsanto Institute" is a fund with a clear focus of scientific activity — protein and peptide regulation. The "Mallinckrodt Institute" deals with hybridomas. Any faculty member who so wishes may apply to the fund, or "institutes," for research support. A committee of scientists from industry and from the University will review and evaluate the proposals in much the same way that a study section does at the NIH, based on relevance to the institute's goals and the proposal's scientific quality. The funding will operate just as it would if one were getting an NIH grant. There is even provision for an overhead, analogous to the NIH situation.

It is important to emphasize that no faculty member is under any pressure to apply for these funds, although any faculty member may apply. When research is ready to be published, the company will have up to a month to review the final manuscript before it is submitted to a journal. During that month, they will, if appropriate, recommend to the University that a patent be sought. If the University approves, the company will then seek the patent in the University's name. The product would then be developed by the company, and the University would be paid royalties from sales and profits.

Part of the royalties will go into the Dean's budget for the School of Medicine; part of the royalties will accrue to the department of the faculty member who conducted the research; and part of the royalties will go to the labora-

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**Academic Programs at WUMC**

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tory of the faculty member. No money will go to the faculty member himself or herself. This is in keeping with our long tradition that clinical practice income generated by our full-time faculty is used for departmental and school purposes, and does not directly benefit the faculty physicians.

We anticipate that delay of publication will be very infrequent because there is now so much informal liaison between University scientists and Monsanto and Mallinckrodt scientists. We believe that our industrial partners understand the necessity of supporting basic research, and a substantial portion of the partnership budget is allocated for very basic research with few, if any, apparent immediate commercial possibilities. Monsanto is currently organizing its own biological research capabilities to complement our research efforts.

Again, all arrangements are between the University and the corporation. Individual faculty members do not contract directly with the corporation and cannot benefit personally from the research agreement. In addition, for the Monsanto program, at least every three years a panel of internationally distinguished scientists will convene to review the scientific calibre of the work supported by this program. They will report to the University trustees and to the Monsanto board of directors. This panel will deal with such issues as adverse consequences of this agreement on the University’s teaching and academic environment and other programs. The panel’s reports will reassure Monsanto that the work they are supporting is first rate, and it will reassure the University that the program is having no significant adverse effects on our academic programs.

While this research partnership with Monsanto and the smaller though similar one with Mallinckrodt represent first steps in seeking additional research funding, it is important to keep the impact in context. During the first five-year contract, the total dollars in the Monsanto project will represent no more than five or six percent of our total externally funded research budget. The potential for greater impact certainly exists. The research in hybridoma monoclonal antibodies, with Mallinckrodt, should be viewed in the light of the fact that nearly half of all the research proposals going to NIH now involve molecular genetics technology.

To conclude — yes, there are some major problems, but they are not unique to Washington University Medical Center. We have the benefit of our traditions and history as a base for meeting those problems. We are going to have to reassert the importance of endowment. We are going to have to become better managers. We must explore the possibility of important new income from industry or other institutions.

We could hardly be in a better position to face these problems. The calibre of our students has never been better, and there is no indication of any slacking off of student interest in our school. Our faculty is first rate and successful in getting NIH and ADAMHA grants. If rank in grant-getting were published in such a way that one could compare grant support on a faculty per capita basis, I believe that we would be second to none. We are approaching the end of an important period of major construction and renovation of all of our facilities. I don’t know of any other medical center that will have a better physical plant.

I know that people in positions like mine all over the country are worrying about the future and struggling to meet challenges, just as we are here. I believe that with the continued support of the St. Louis community and the growing support of our alumni, we will make it through the challenging years ahead.
In Part II, bandits kidnap PUMC faculty member Harvey Howard, M.D., and kill his friend. Howard survives captivity and returns to the U.S. as head of the Ophthalmology Department at WUMS from 1927 to 1933.

Among the bodies was Sun Yat-sen, embalmed by WUMS alumnus Paul Stevenson, M.D. ’16.

Among the bones was the Missing Link, Peking Man, whose bones are still missing, shanghiaied in Tianjin possibly, as World War II erupted.

When Edmund V. Cowdry began recruiting faculty for the PUMC Department of Anatomy among his first contacts was Robert J. Terry, head of the anatomy department at Washington University. Terry responded by recommending the name of Paul H. Stevenson. In view of the Rockefeller commitment “to maintain the religious tone and work in the college and hospitals” pledged to the London Missionary Society at the time of the purchase of Union Medical College, Stevenson must have seemed an ideal choice.

Not only was he a physician with a degree from the newly reorganized and prestigious Washington University, but he was also an ordained clergyman with the Disciples of Christ.

Stevenson was born in 1890 in Monmouth, Illinois, the son of a clergyman. While Stevenson was in his teens, his family moved to St. Louis, where he graduated from Central High School in 1909. He entered Hiram College, which was operated by the Disciples of Christ. There he combined studies toward bachelor’s degrees in science and in divinity, completing both in 1913. At Washington University, Stevenson distinguished himself very early in anatomy, winning the George F. Gill Prize during his first pre-clinical year. While a medical student, Stevenson met June Lapsley, who was training to be a nurse at St. Luke’s Hospital in St. Louis. After a short courtship the two were married in 1914. The problem of how the young couple would support themselves prior to graduation was resolved when a local Disciples of Christ congregation, the Maplewood Christian Church, made known the need for a pastor. Paul and June Stevenson arranged to lead the church jointly until he completed his work at Washington University. In 1916 twins, Robert and Margaret, were born to the couple. His mounting extra curricular responsibilities did not prevent Stevenson from finishing high in his class and being named to the honorary medical fraternity, Alpha Omega Alpha.
There was one outstanding problem concerning Stevenson’s recruitment by the China Medical Board. PUMC was not ready for him in 1917. Cowdry was not yet in Beijing and the Anatomy Building was only in the planning stage. The obstacle was overcome again, thanks to the Disciples of Christ. The denomination maintained medical missions in several Chinese cities, notably in the Yangtze River valley. Its foreign missions organization agreed to cosponsor the Stevensons and to employ Paul in one of their hospitals until a PUMC position was available. Accordingly in the summer of 1917, the Stevensons and their two infant children departed for Shanghai. Their first stay, for about a year, was in Nanjing. Located in that city was the oldest Disciples of Christ mission and there the Stevensons undertook intensive study of the Chinese language.

The following year the family moved a hundred miles west to Hefei, capital of Anhui Province. Hefei, situated in one of China’s most productive rice- and wheat-growing regions, was the site of a small mission hospital. The institution had been established a quarter century earlier, when the city was known as Luchowfu. Pioneer missionaries in the region had suffered through two outbreaks of violence directed at foreigners in 1891 and 1900. But by 1918 Anhui was controlled by warlords who fought only among themselves, leaving missionaries for the most part in peace. Where Stevenson served was still known by the old name, Luchowfu Christian Hospital.

Stevenson was named superintendent of the hospital. In that capacity the young physician struggled against a gamut of medical problems in addition to being charged with upgrading the training of the native staff. At that time cases of cerebral-spinal meningitis reached epidemic proportions in Anhui. There was unquestionable need for someone with Stevenson’s background and skills in Hefei. Yet the situation and its responsibilities did not deter him from his original objective of pursuing a career in anatomical research. Having learned by 1919 of Cowdry’s progress at PUMC, Stevenson wrote to him, “I feel more or less orphaned here in my present work... and (I am) biding my time for the day when I can return for further study in one of the allied subjects of anatomy, probably embryology.”

Cowdry was delighted to add an embryologist to his department. In 1920 Stevenson received an appointment to serve as Assistant in Anatomy. He and his family moved to was like stepping forward a century or more in time. (The Chinese educator Hu Shi, an associate of John Dewey, pithily put it, PUMC was “an airplane college in a wheelbarrow country.”) Stevenson was assigned to teach gross anatomy. His students arrived at the laboratory fully qualified from their premedical studies and able to receive instruction in English. But Stevenson’s ability to speak and write Chinese, far surpassing that of most of his Western colleagues, was also a great asset, in that it permitted him to develop personal rapport with the students. Back in Hefei, a perceptive Mandarin had dubbed him in Chinese Xu Wensheng, which not only approximated the pronunciation of Stevenson but also could be translated roughly as “Xu (a common surname), the born scholar.” The Chinese appreciated his willingness and ability to learn about their culture. Stevenson became, it was later remarked, a kind of unofficial “dean of students” at PUMC.

In 1921 major construction of the PUMC campus was completed and, the new facilities were dedicated in September. It was a festive occasion.
Distinguished scientists from around the world attended. Present to deliver the principal address at the ceremonies was the great benefactor himself, John D. Rockefeller, Jr. The General Bulletin of the Rockefeller Foundation was almost romantic in its description: "scientists from the East and from the West (marching) together in occidental academic costume, passing in slow procession beneath the great overhanging roofs of green tile, past modern laboratories and age-old water carts, through rows of students of Western medicine and past groups of wondering coolies and ever present beggars."

Davidson Black had, by this time, been named to succeed Cowdry as head of the Department of Anatomy. Both Canadians, Black had known Cowdry since they had been undergraduates at the University of Toronto. Black's specialty was paleontology and he had received his doctorate from Western Reserve University. His promotion at PUMC was approved, but only after misgivings were expressed by some members of the China Medical Board, who preferred an anatomist with a specialty more oriented to medicine.

Black was not alone in Beijing in his choice of research interests. China at this time afforded extraordinary opportunities for work in paleontology and anthropology. It had long been surmised that the arid interior of the Middle Kingdom and Mongolia could yield fascinating discoveries concerning the evolution of higher life forms, including the human race. The suppositions were based in part on observations by geologists and mining engineers employed by the Chinese government to find iron and coal deposits. Commenting on fossil-bearing deposits found in a hillside at Zhoukoudian, not far from Beijing, a Swedish mining engineer, J. Gunnar Anderson, went so far as to pronounce: "Here is primitive man, now all we have to do is find him!" By the 1920s the international scientific community was ready and able to explore these leads. Several well-equipped expeditions were mounted, among the best publicized and financed being one led by Roy Chapman Andrews of the American Museum of Natural History in New York. His venture, launched in 1921, aroused intense interest among the American public, particularly after it was represented in the popular press as the hunt for the "missing link."

Stevenson and Black joined the Andrews expedition for a short period after it established a base in Mongolia early in 1922. The venture deeply impressed the younger anatomist. He decided to put aside his work in embryology in favor of investigations in physical anthropology. Stevenson realized, however, that he lacked sufficient background to pursue this new interest. He had a leave of absence approved for 1922-1923 and, with Black's recommendation, secured permission to study at Western Reserve University. With his wife and children, Stevenson journeyed to Cleveland where he undertook a postgraduate course in human osteology.

Upon returning to PUMC, Stevenson elected to employ the technique which he learned in anthropometry, the measurement of living persons, rather than to join Black in paleography. Nevertheless, his situation forced him to come to intellectual terms with theories of human evolution, which he had once rejected on religious grounds. His denomination, like many of the time, ascribed to a very literal interpretation of the Biblical creation story. While never openly renouncing ties to the Disci-
pies of Christ, he clearly came to distance himself from the teachings of the church. This was somewhat painful for him. In one of his writings he confessed “... oriental students are fortunate in not having had canonized for them by zealous forefathers those particular ancient writings that recorded the early ideas of the race on the subjects of human origins and cosmic relationships. The fundamental viewpoint of man’s place in nature has never had, and never will have, to suffer the radical change in the Eastern mind that has been necessary in Western Christian thinking.”

Stevenson soon encountered a soulmate in Beijing in the person of the French Jesuit paleographer Pierre Teilhard de Chardin. Teilhard was exiled to China in 1923 for publishing writings judged contrary to the official teachings of the Roman Catholic Church. Central to Teilhard’s condemned views was the notion that evolution and Catholic doctrine could be reconciled. He and Stevenson became lifelong friends. Teilhard was permitted to work at the PUMC Anatomy Building and frequently joined Black and Stevenson on forays outside the city to the beginnings of excavations at Zhoukoudian.

The power vacuum which left much of China in the hands of warlords and bandit chieftains continued into the mid 1920s. But political forces were being organized to unify the nation. Most powerful was the Guomindang, the National People’s Party, reorganized under the leadership of Sun Yatsen in 1924. The fledgling Chinese Communist Party was active all this time as well, but members were under orders from the Communist International to infiltrate the Guomindang rather than to control for power on their own. Sun accepted Russian advisors sent by Stalin to help in the reorganization of his forces. From the point of view of the foreign community, the Guomindang was a radical threat to its privileged existence. Sun, however, who had been struggling for power for a quarter of a century, was a known entity and personally respectable.

Early in 1925 Sun came to Beijing and was admitted as a patient at PUMC Hospital. He was diagnosed as suffering from advanced abdominal carcinomatosis. By March he was dead. The disposition of Sun’s body now posed a delicate political problem for the college. Nationalists of every faction revered the deceased as a hero; there were immediate plans for building a gigantic mausoleum in his honor, where the embalmed body could be seen by his people, like Lenin in Moscow. The embalming was assigned to Stevenson. He was rigorously required to respect Chinese taboos against removing internal organs from the body. The work was performed in a temple located between Beijing and Zhoukoudian.

Stevenson had custody of the body for two years, during which the political struggle determined where the final resting place would be. Ultimately, under Chiang Kai-shek’s authority, Sun’s tomb was constructed in Nanjing. All parties at that time agreed that Stevenson had fulfilled his assignment flawlessly (although mishandling by others in Nanjing prevented placing the body on display) and he was later to be awarded the “Order of the Blue Jade” by the Nationalist government for his work.

UMC faculty generally assumed that travel outside Beijing was safe if one took proper precautions until, late in 1925, a faculty member was captured by bandits. Harvey J. Howard, Professor of Ophthalmology, was visiting an American friend at the latter’s ranch in northern Manchuria, not far from the Soviet frontier. The two were inspecting the property when they were attacked by an armed band that had been plundering in the district. The friend was killed.

The outlaws forced Howard with them on a trek across the rugged terrain of the Sungari River basin. Subsequent American diplomatic protests galvanized the local warlord, Zhang Zuolin, into action to track them down. With a price on their heads and hundreds of troops in pursuit, the bandits realized that they could not ransom their captive. They threatened repeatedly to kill him.
But Howard proved to be quite resourceful. Like Stevenson, he had been a medical missionary and could speak fluent Chinese. He worked to establish rapport with his captors by treating their minor ailments. Given their unsanitary communal life, Howard was not surprised that many of the bandits suffered from trachoma and venereal diseases. Howard possibly saved his own life by holding out the promise of treatment on condition of his release. Finally, after ten grueling weeks, the band was overtaken by Zhang's forces and Howard was freed.

Howard attempted to make good his promises to the bandits. He maintained contacts with one of them for months thereafter, although was never able to arrange for his safe conduct to Beijing. Meanwhile, Howard wrote a thrilling account of his adventure which was syndicated in newspapers throughout the United States and eventually was published in a book, *Ten Weeks with Chinese Bandits*. He left PUMC in 1927 to become head of the Department of Ophthalmology at Washington University. Howard held that position until 1933, after which he entered private practice in St. Louis.

It is unlikely that the Howard incident deterred anyone at PUMC from planning research expeditions. In the spring following the ophthalmologist's release, for example, Stevenson set forth on a long journey through the mountainous borderland between Sichuan province and Tibet. His objective was "an anthropological reconnaissance" of the many district tribes and peoples of the region. He succeeded in encountering and defining characteristics of hundreds of inhabitants of that isolated land, in some of whom he recognized marked similarities to American Indians. Along the way, Stevenson was nearly lost by his party on a mountain pass and later almost drowned in the fierce current of a river. Chinese political anarchy gave him little trouble, except in Sichuan, where feuding military factions blocked travel on the main highway to Tibet, forcing lengthy detours.

With the publication of his findings from the Tibetan borderland and the elaboration of his anthropometric technic, Stevenson won an international reputation as an expert on ethnic stocks in China. He was promoted to Assistant Professor at PUMC. Late in 1926 he was asked to be consultant on plans for an elaborate German-financed expedition across the Gobi desert to the far westernmost region of China, Xinjiang. The expedition was to be led by the Swedish geographer Sven Hedin, then probably the most famous living European explorer. He had begun his travels in the 1880s and had counted among his patrons Kaiser Wilhelm II of Germany and Tsar Nicholas II of Russia. He was the author of 24 books, each translated into many languages. For Hedin to call upon Stevenson for assistance was a distinct honor for the American and he gladly instructed Hedin's medical staff in the fine points of anthropometry.

Stevenson was not personally to join the "Sino-Swedish Expedition," as it was commonly known. He had a leave of absence planned and had arranged to travel to England. Moreover, political tensions in China had increased, so that now, the winter of 1926-1927, only the most daring foreigners were planning forays to other parts of the nation. Chiang Kaishek, Sun's successor as head of the Guomindang, had undertaken a campaign north from his stronghold in Guangzhou (Canton) and was attempting to take control of cities in the Yangtze Valley. Insurrections fomented by Communists in Nanjing and Shanghai resulted in the killing of a small number of foreign residents, and that was enough to trigger a wave of fear among the enclaves throughout the country. Many of the PUMC faculty, Stevenson included, evacuated their dependents from Beijing to the

Ophthalmologist Harvey J. Howard in 1925, upon his release.

Sven Hedin interviewing a Mongolian high lama on the compassion of his soul.
relative safety of the seaport Dalian. June Stevenson and the children waited there until Stevenson's commitments in the capitol were finished for the year.

The Stevensons went to London, where he studied under Karl Pearson, Professor of Eugenics at the University of London. Pearson was an acknowledged leader in the field of biostatistics. He had developed hundreds of mathematical formulas applicable to areas of interest to Stevenson, ranging from models for testing theories of evolution to means of computing skin surface from height and body weight.

On Stevenson's return to Beijing he was promoted to Associate Professor at PUMC. He found his colleagues at the Anatomy Department absorbed in work relating to human evolution, not at Pearson's theoretical remove, but with all eyes trained to the fossiliferous deposits of Zhoukoudian. Stevenson had already witnessed some of the excitement. As early as 1923 a hominid molar was discovered in a cave on the site by members of a Swedish team. Finds of other fossilized teeth followed. The investigations were now officially in the hands of the National Geological Survey of China, headed by Pei Wenzhong and Young Zhongjian. The National Geological Survey accepted Black as "honorary director" and Teilhard as "honorary advisor." The name "Peking Man" was first applied colloquially to the prehistoric inhabitants of Zhoukoudian. In 1927, however, Black officially designated a generic status, as Sinanthropus pekinensis.

In 1929, by agreement between PUMC and the National Geological Survey, facilities in the Anatomy Building and adjacent Lockhart Hall were officially declared the Cenozoic Research Laboratory, with operating costs underwritten by the Rockefeller Foundation. Stevenson was an active participant in the work there. He also contributed to the search for fossils at Zhoukoudian where laborers were slowly stripping away a hillside.

Late in 1929 Pei made the dramatic find of a nearly complete skull. Carefully wrapping this treasure, he transported it to Cenozoic Research Laboratory. Black set to work immediately to free the fossil from its rock matrix. What emerged was judged to be the cranial remains of an adolescent Sinanthropus. It was, in the words of Teilhard, who assisted in the work, "as typical a link between man and the apes as one could wish for." From that point on, of course, activity both at Zhoukoudian and in the laboratory was intensified.

Stevenson and his family were on leave from PUMC in the summer of 1930, during which he lectured at the University of California. When the Stevensons returned there were signs that China was about to embark upon a new era of national unity and strength under the leadership of Chiang Kaishek. Chiang not only subdued most of the independent warlords, he also began to win back the concessions operated by European powers on Chinese territory. But events in 1931 proved how vulnerable his Guomindang regime actually was.

The one foreign power which Chiang could not dislodge was Japan, which exercised power in southern Manchuria and Shandong. When Chiang's government attempted to restrict importation of Japanese goods, Japan declared its vital interests threatened and struck back. In September 1931 Japanese troops stationed near Shenyang (Mukden) attacked Chinese forces and from there seized control of all Manchuria. The Chinese responded to the "Mukden incident" by imposing a total boycott on Japanese goods. That provoked the Japanese to still more extreme reactions: a savage aerial attack on Shanghai and creation of a puppet state in Manchuria, re-christened "Manchukuo." In the months that
followed, several attempts were made to reach an armistice between the two warring nations. Repeatedly, negotiations broke down, followed by a Japanese advance until, by 1933, the invaders controlled all of northeastern China down to the Great Wall. The situation, of course, worried everyone at PUMC. Teilhard described the uncertainty to a correspondent, "we are living here in profound tranquility, though we expect every morning to wake up and find ourselves annexed by Manchukuo." At the Cenozoic Research Laboratory, the special concern was to extract as many of the precious remains of Peking Man from Zhoukoudian as possible while there was still access to the site. The National Geological Survey was under pressure from the Chinese government to evacuate the laboratory and its treasures from Beijing. Yet, the period 1931-1933 was when the richest finds were being made. Major sections of the once inhabited cave were opened up, yielding more skulls, jaws, teeth, a clavicle, and other bones. In addition, there were discoveries of various stone and bone implements, necklaces of pierced teeth, and animal bones. The stratum from which the fossils were taken was judged to have been laid down as charcoal and ash, suggesting long duration to the abode of Sinanthropus.

In March 1934, Black, the principal coordinator of these investigations, died suddenly of a heart attack. Stevenson gave the principal address in Black's honor at a memorial service. He was not, however, considered to succeed his old boss. The China Medical Board, accustomed now to paleographers, appointed Franz Weidenreich, known for his discoveries concerning Neanderthal Man, to fill the post. Stevenson continued principally with his investigations in anthropometry.

Late in 1934, the Stevensons departed once again for the United States. Leave this time gave Stevenson the opportunity to confer with Sven Hedin, who was then touring North America, about the results of the Sino-Swedish Expedition. When the family returned to Beijing, the armistice with the Japanese was still holding. At PUMC, the quality of medical education was being maintained, despite austerity, at a high level. Over the years increasing numbers of well-trained Chinese faculty had taken positions held originally by foreigners. Their ranks were now supplemented by visiting professors. Among the visitors in 1935 was G. Canby Robinson, who twenty years earlier had instructed Stevenson in internal medicine at Washington University and who had served as dean from 1917 to 1920. Robinson was immensely impressed with what he saw. He commented in his memoirs, "In 1935 China was in her modern heyday. It was a favorable time to be there. The medical college was a strong, well-directed institution."

Robinson was correct about PUMC, but deceived about the political situation. With the Japanese poised so near Beijing, and with Tokyo adamant about withdrawal from China, it was inevitable that hostilities would break out again. In July 1937 the conflict was reignited. Japanese troops on maneuvers exchanged shots with a Chinese garrison, whereupon the former moved quickly to seize a town just south of Beijing. At the town was a bridge, dubbed by foreigners the "Marco Polo Bridge." Over it passed the rail line connecting Beijing with the seaport of Tianjin and also the road linking the old capital with Zhoukoudian. The city and all its environs fell to the Japanese a month later. Chinese authorities announced that there would be no more truces with the invaders. World War II had effectively begun in Asia.

At the time of the Marco Polo Bridge incident, Paul and June Stevenson were on route to the United States on another leave of absence from PUMC. Their travel plans called for meeting again with Hedin, this time in Sweden, following a visit with their daughter, Margaret, who was in Michigan. The couple had left Beijing fully intending to return. Stevenson had signed a five year contract with the China Medical Board less than a year earlier. Not yet completed was the text of a book on the origins of China's ethnic populations, which was to be the culmination of his work. However, upon arrival in the United States, Stevenson was advised that his career at PUMC was now at an end, that the China Medical Board could no longer vouch for his and his family's safety in a country at war.

The Stevensons arrived in Sweden late in 1937 and stayed as Hedin's guests until the following spring. Stevenson worked on his book using data brought back from the Sino-Swedish Expedition. By 1938 Europe had its own war clouds gathering and Stevenson might well have received an intimation of the future conflict while he was the guest of the venerable explorer. Hedin, since they last met, had become an outspoken apologist for Hitler. Perhaps his views were grounded more in nostalgia for the lost world of the Kaiser and the
Tsar, and in loathing for Communism, than in a clear appreciation of Nazism. But he had gone so far as to publish a book hailing Hitler's cause (and, indeed, would persist in this role until the end of World War II). For his part, Stevenson chose to reject any suggestion of Nazi sympathies. The war severed all contacts between him and Hedin.

Stevenson was never a man to waste time bemoaning lost opportunities. Otherwise he might have protested the decision to terminate his work at PUMC. The American faculty who remained in Beijing were not called back. Moreover, the China Medical Board even sent additional visiting professors, once it learned that the Japanese were not interfering with the college. Eugene Opie, another former dean of Washington University School of Medicine, taught pathology at PUMC in 1939 and 1940. He returned calling his year "an illuminating experience."

At the age of 48, Stevenson decided to make a major career change. Still receiving his PUMC salary, he began study for a doctorate in Public Health at Johns Hopkins University. That, for the most part, is another story. However, there is a dramatic epilogue to this account of his China years. In 1941, with his doctorate completed, Stevenson accepted a commission as Senior Surgeon with the United States Public Health Service. At the request of Chiang Kai-shek's government, he was ordered to Burma to serve as a member of the American Medical Commission to the Yunnan-Burma Railway. The Commission was to consult on the medical and sanitary requirements of an estimated 150,000 Chinese laborers who were to build the railroad.

At first, Stevenson saw in this turn of events a golden opportunity to study again the tribes of western China. He took along the manuscript of his book, intending to finish it during the assignment. But en route across the Pacific he changed his mind, realizing more clearly the rigors ahead. Unfortunately, Stevenson decided to entrust the manuscript to a friend in Manila. Less than a month later, the United States was at war with Japan and the Philippines were invaded. Japanese forces seized Manila and ransacked American property. The manuscript disappeared and was never recovered.

In Beijing, within hours of the reported attack on Pearl Harbor, the gates of PUMC were cordoned off. Not even Teilhard, with his Vichy French visa a "friendly alien," was allowed to enter. Three remaining Americans were arrested by the Japanese and were interned until the end of the war. In a lamentable parallel to the fate of Stevenson's manuscript, the priceless bones of Peking Man also were lost. Anticipating the open hostilities, PUMC staff had secretly packed the fossils for shipment to the United States. The precious cargo was last accounted for in Tianjin. There it had to be abandoned on the docks and was never seen again.

Stevenson survived the war, serving American forces in India after the Japanese invaded Burma. His active career in public health lasted until 1960, when he retired in St. Louis. He died in 1971. The facilities of PUMC also survived the war. An attempt to reestablish the college was aborted by the Communist takeover in 1949. The whole group of buildings was converted into a hospital, defiantly tagged "Anti-Imperialist" during the Cultural Revolution. Now more appropriately renamed the Capital Hospital, the institution continues to serve the people of China, and attract an occasional visitor or two from Washington University.
John M. Fredrickson, M.D., has been appointed professor and head of the Department of Otolaryngology at Washington University School of Medicine. The announcement was made by William H. Danforth, M.D., chancellor. Frederickson, formerly professor of otolaryngology at the University of Toronto, and director of its clinical sciences division, succeeds the late Joseph H. Ogura, M.D.

Internationally recognized for his vestibular research, Fredrickson developed an implantable middle-ear hearing aid in 1973, and a voice box for laryngeal cancer patients in 1981. He received his medical degree from the University of British Columbia in 1957 and interned at Vancouver General Hospital. He completed additional residencies in pathology at Vancouver General Hospital, in surgery and medicine at Shaughnessy Hospital in Vancouver, and in otolaryngology at the University of Chicago. Fredrickson's awards include a research award in 1964 and an award of merit in 1976 from the American Academy of Ophthalmology and Otolaryngology, the University of Toronto Graham Campbell Prize in 1966, and an honorary medical doctorate from the University of Sweden in 1975. He is a member of many medical societies and organizations including the American Society of Head and Neck Surgery, the American Otological Society, and the American Laryngological Society.

Orthopedic surgeon Paul R. Manske, M.D., has been appointed chief of the division of orthopedic surgery in the Department of Surgery. The announcement was made by Samuel Wells, M.D., department head. Manske will also be chief orthopedic surgeon for the Barnes Hospital at Washington University Medical Center.

A 1965 graduate of WUMS, Manske took his post-graduate surgical training at the University of Washington in Seattle. He was a resident orthopedic surgeon at the Barnes Hospital from 1969 through 1972, taking a special six-month fellowship in hand surgery at the University of Louisville with Harold Kleiner, M.D. He was an instructor in orthopedic surgery at Washington University, and became assistant professor in 1976, directing the training of residents in orthopedic surgery.

Manske established his private practice in orthopedic surgery in south St. Louis County in 1979, and joined the staffs of St. Anthony's, St. Joseph and Missouri Baptist hospitals. Also in 1979, he became Research Assistant Professor of surgery at WUMS.

Manske's research specialization is in hand surgery, and he served on the research and congenital deformities committees of the American Society for Surgery of the Hand. He is also a member of the Hand Study Society, The American Academy of Orthopedic Surgeons, The American College of Surgeons, The American Medical Association, and several local and regional medical specialist societies.

For the past 10 years, Manske has been director of hand surgery at Shriners Hospital for Crippled Children. His NIH-funded research at Washington U. involved work to develop artificial pulleys for use in the hand, and studies of tendon nutrition and healing in anticipation of surgery. His current research, supported by Shriners Hospital, focuses on changes in tendons with age and in various diseases. He has published numerous articles and abstracts in scientific journals and books, principally on joint replacement, various aspects of the development and healing process of hand tendons, tendon grafts, and artificial tendons. Long interested in medical education, Manske has presented lectures and seminars at medical meetings and schools throughout the U.S., and in Canada, Mexico, and The Netherlands.
LACY ELECTED TO NAS

Paul E. Lacy, M.D., Edward Mallinckrodt Professor and Chairman of the Department of Pathology at WUMS, has been elected to the National Academy of Sciences, one of the highest honors that can be given to an American scientist or engineer.

Chartered by Congress in 1983 as a society for distinguished scholars in science and engineering, the NAS is dedicated to advancing science and its applications for the general welfare. It serves as an official adviser to the Federal government on questions of science and technology.

Lacy, one of 60 new members, was elected in recognition of his distinguished and continuing achievements in transplanting islet cells, clusters of pancreas cells which produce insulin. His work represents a significant advance in immunology and organ transplantation, as well as in the continuing search for better methods of treating insulin-dependent diabetics.

Lacy earned the M.D. degree cum laude, and the M.S. degree in anatomy from Ohio State University in 1948. He received his Ph.D. in pathology in 1955 from the Mayo Foundation of the University of Minnesota. He was assistant instructor in anatomy at Ohio State University, interned at White Cross Hospital in Columbus, Ohio, and was a fellow in pathology at the Mayo Clinic. He joined the anatomy department at WUMS in 1955 as a post-doctoral fellow of the National Cancer Institute's Public Health Service, and became an instructor in pathology in 1956. He was named Mallinckrodt Professor and chairman of the pathology department in 1961. He is also pathologist-in-chief of the Barnes Hospital, Jewish Hospital and St. Louis Children's Hospital at Washington University Medical Center.

FURTHERMORE

Robert C. Collins, M.D., associate professor of neurology, is one of two recipients of the Klingenstein Senior Fellowships. The Esther A. and Joseph Klingenstein Fund, Inc., awards $100,000 for a three-year period to support clinical and basic science investigators in the neurosciences whose work may lead to a better understanding of epilepsy. The Klingenstein Fund also awarded fellowships to six junior investigators in the U.S., and will make no further awards until 1985.

Peter M. J. Burgers, Ph.D., and Richard W. Gross, M.D., have been named Searle Scholars by the executive committee of The Chicago Community Trust. Burgers is assistant professor of biological chemistry, and Gross is assistant professor of medicine. They were among 19 outstanding biomedical research investigators who received the honor. Each Searle Scholar receives a grant of $157,500 to support research for the next three years.

Searle Scholars are chosen because they have demonstrated potential for conducting innovative research, and for making significant contributions to their chosen profession. There were more than 130 applicants from 76 American universities for the 1983 scholars program. Forty-seven scholars across the USA are supported by the program. Burger's research attempts to understand how a very complex protein in the bacterium E. coli replicates DNA, the chemical basis of heredity. Gross will study the effects of heart attack and therapeutic drugs on the biochemistry of heart cells.

Barbara Illingworth Brown, Ph.D., professor of biological chemistry, was honored by the Yale Graduate School, which presented her the Wilbur Lucius Cross Medal. The Cross Medal was initiated in 1966 to be awarded from time to time to Yale Graduate School alumni and alumnae for outstanding achievement in an activity significant in the career of Cross, former dean of the school. The activities include scholarship, writing, teaching and leadership. After retirement from Yale, Cross was governor of Connecticut for four terms. The citation engraved on the back of Brown's medal reads: "Distinguished biochemist, gifted investigator of the molecular basis of inherited disorders."

Brown received her Ph.D. in 1950 from Yale University, and joined Washington U. as a research assistant in biological chemistry. She was named professor in 1974. From 1966 to 1971, she was an Established Investigator of the American Heart Association. She has also served on the Veterans Administration Review Board for Basic Sciences, and as director-at-large for the Society for Inherited Metabolic Disorders. She is currently on the board of directors of the Association for Glycogen Storage Disease. She is a member of several scientific societies, including the Ameri-
can Society of Biological Chemists, the Biochemical Society of England, and the American Society of Human Genetics.

Students Stephen C. Massey, Ph.D., and Eric Rubin, are co-recipients of the sixth annual James L. O'Leary Prize for research in neuroscience. The prize recognizes original and important accomplishments in neuroscience research by a pre- or post-doctoral student at Washington U. The competition is based on research abstracts, and the prize is presented at the medical school's annual neuroscience symposium. Massey's abstract explains his efforts to identify the chemical language used by light-sensitive cells communicating with optic nerves. Such knowledge, Massey believes, is essential to the eventual development of treatment for a variety of sight disorders including night blindness and color blindness.

Rubin's work, a summary of his doctoral research, describes the development of complex circuit-like connections among cells in the brain. The special feature of the study, according to Rubin, is that the research was done in a relatively simple part of the nervous system where developmental events can be observed and later applied to the more complex human brain.

The O'Leary Prize was established in memory of the eminent neuroscientist James L. O'Leary, Ph.D., a professor and head of the Department of Neurology at WUMS, whose career extended from 1928 until his death in 1975.

Sidney Goldring, M.D. '47, was chosen president-elect of the American Association of Neurological Surgeons at the association's annual meeting in Washington, D.C. Goldring is professor and head of neurological surgery at WUMS and neurosurgeon-in-chief at Barnes Hospital and St. Louis Children's Hospital at Washington University Medical Center. The American Association of Neurological Surgeons was founded in 1931 as The Harvey Cushing Society, and is the primary organization for neurological surgeons in the U.S.

Gregorio A. Sicard, M.D., assistant professor of surgery, was elected to the board of the Boy's Club of St. Louis. A native of Ponce, Puerto Rico, Sicard is an assistant surgeon at Barnes Hospital, staff surgeon at the Veterans Administration Hospital, and attending surgeon at St. Louis Children's and St. Louis County hospitals. The Boys' Club, on 11th Street in St. Louis, is 54 years old and the first nationally affiliated Boys Club in America. The organization provides daily programs for 3,500 boys from 6 to 18 years of age. It is affiliated with the Boys Club of America and the United Way.

Washington U. is one of five institutions included in the third Mental Health Research Network, created by the John D. and Catherine T. MacArthur Foundation of Chicago. The network researchers will study risk and protective factors in major mental disorders. Using an interdisciplinary approach, the network scientists will examine risk and protective factors in patients with schizophrenia, anti-social personality disorders, and affective disorders such as depression and manic-depressive illness.

The Washington U. researchers involved in the project are: Lee Robins, Ph.D., professor of sociology in psychiatry; C. Robert Cloninger, M.D., professor of genetics and psychiatry; Felton Earls, M.D., associate professor of psychiatry; Irving Gottesman, Ph.D., professor of genetics and psychiatry; John E. Helzer, M.D., associate professor of psychiatry; Dabeeru C. Rao, Ph.D., associate professor and director of the Division of Biostatistics, professor of psychiatry and associate professor of genetics; and Theodore Reich, M.D., professor of genetics and psychiatry.

The network is funded for five years at approximately $1 million per year. Other participating institutions include the Institute of Psychiatry at Maudsley Hospital in London, the University of California at Irvine, the University of California at Los Angeles, and Yale University.

Richard P. Bunge, M.D., and Patrick M. Wood, Ph.D., received a three-year $134,158 grant from the National Multiple Sclerosis Society to conduct research geared to the understanding of ways myelin sheaths may be repaired following damage by multiple sclerosis or other diseases. Bunge, professor of anatomy and neurobiology, is recognized worldwide as an expert on oligodendrocytes, often called oligos. Oligos are brain cells that produce myelin, the sheath that covers nerves in the brain and spinal cord. The myelin sheath damage resulting from multiple sclerosis blocks nerve signals and causes injury to the central nervous system.

Bunge and Wood, who is research instructor in anatomy, specifically hope to learn whether the cells will make new myelin more than once, and whether it is possible to identify immature cells that will become oligos and assist in the repair process.

H. Brent Clark, M.D., Ph.D., assistant professor of pathology, will study the biochemical structure of myelin, supported by a three-year $124,031 grant from the National Multiple Sclerosis Society. He will examine the exact location...
of two important chemicals in the myelin sheath—myelin basic protein and proteolipid protein. He will try to discover how and where the proteins are formed, and to understand their roles in growing new myelin during development and during any potential repair phase of multiple sclerosis.

Leonard Berg, M.D. and Warren L. Danziger, Ph.D., spoke at the first Missouri Conference on Alzheimer's Disease and Other Dementias, held at Tan-Tar-A, Lake of the Ozarks, in March. Berg is clinical professor of neurology at St. Louis Children's Hospital and at Jewish Hospital, both member institutions of the Washington University Medical Center. Danziger is director of the Memory and Aging Project at Washington U. medical school, and research assistant in the neurology department. The conference participants examined the impact of Alzheimer's Disease, political considerations, clinical diagnosis and management, and the role of the family and support groups. Alzheimer's Disease is a progressive neurological disorder with no known cause or cure, and is the fourth leading cause of death among adults in the U.S. The two-day conference was sponsored by the St. Louis and Kansas City chapters of the Alzheimer's Disease and Related Disorders Association; Comprehensive Mental Health Services, Inc.; Missouri Department of Mental Health, Division of Comprehensive Psychiatric Services; the University of Missouri-Kansas City Medical School, and the University of Missouri at Columbia.

Mallinckrodt Institute of Radiology completed installation of its fourth linear accelerator, a Clinac 6, and opened a new Hyperthermia Treatment and Research Center in April. Linear accelerators provide high energy beams used to destroy cancer cells. The Clinac 6 is located on the newly renovated ground floor of the Mallinckrodt Institute. Facilities include a staff room, in-patient waiting area and two examining rooms. Mallinckrodt Institute handles almost 50 percent of all radiation therapy in the greater St. Louis area, and is a major radiation oncology referral center for Missouri and southern Illinois. The Hyperthermia Treatment and Research Center is in Barnard Free Skin and Cancer Hospital, and is the first of its kind in the midwest, as well as one of the most advanced hyperthermia treatment centers. Hyperthermia involves heating cancerous tissues to temperatures which will kill or seriously retard the growth of tumor cells while avoiding appreciable damage to normal cells. The new facility will allow Mallinckrodt Institute to treat approximately 100 patients each year. An inaugural scientific program was held to mark the opening of the new facilities.

The Child Guidance Clinic of Washington University School of Medicine has undertaken a pilot project with four St. Louis-area school districts involved in the voluntary desegregation plan. A five-member team from the Child Guidance Clinic is consulting with school principals, counselors and teachers, discussing ways of working with students having adjustment problems and helping transfer students who encounter other difficulties. Team members include: Ada Jemison, M.D., child psychiatrist and psychiatry fellow; Martha Sellers, Ph.D., developmental psychologist and instructor in medical psychology, psychiatry and child psychiatry; Felton Earls, M.D., head of the Division of Child Psychiatry, child psychiatrist-in-chief at St. Louis Children's Hospital; Peggy Guest, Ph.D., clinic advisory board member and director of the Washington University Graduate Institute of Education counseling psychology program; and G. Lee Judy, executive director of the Child Guidance Clinic.

H. Mitchell Perry, Jr., M.D., professor of medicine, is serving as consultant on hypertension to the Ministry of Public Health in Kuwait. He is physician coordinator for hypertension for the Veterans Administration in Washington, D.C., and directs the Hypertension Section at the St. Louis V.A. Hospital. He has been involved in hypertension research in the U.S. National High Blood Pressure Program since its inception. He has directed the WUMS hypertension division in the Department of Internal Medicine since 1957, and has been director of the Hypertension Clinic since 1964. The Kuwait Ministry of Public Health intends to develop a hypertension control program based on the U.S. National High Blood Pressure Program.

Perry visited Kuwait earlier this year, surveying physicians' practices at hospitals and out-patient clinics, and evaluating the present and future needs of the Kuwaiti people. A return visit will be made to demonstrate American treatment methods.

Adolph I. Cohen, Ph.D., professor of anatomy in ophthalmology, has received the prestigious Proctor Award for 1984, from the Association for Research in Vision and Ophthalmology (ARVO). The award was presented to Cohen for "his many meaningful contributions to visual science and ophthalmology." Ophthalmology department head Bernard Becker, M.D., was a previous recipient.

Charles B. Anderson, M.D., professor of surgery, has been elected president of the Missouri Chapter of the American College of Surgeons. The Missouri chapter was char-
Ogura stepped down June 30, 1982, after 16 years as head of the otolaryngology department at Washington University School of Medicine and as otolaryngologist-in-chief at the Barnes and St. Louis Children’s Hospitals. He retained his title as Lindburg Professor of Otolaryngology at the medical school and as a staff otolaryngologist at the two hospitals.

During a career that spanned more than 40 years, Ogura gained international respect as a pioneer in laryngological surgery and research. Through patient care, teaching and research, he set an example that inspired surgeons who were trained by him, as well as otolaryngologists throughout the world who implemented his surgical techniques. He trained more than 100 otolaryngology specialists, many of whom went to other academic institutions to teach otolaryngology.

Washington University School of Medicine established the Ogura Lectureship in 1977 in his honor. Ogura is one of three physicians in the history of the American Laryngological Association to receive all three of its prestigious awards — the Casselberry Award, the James Newcombe Award and the DeRoalds Gold Medal. His honors also include the 1980 Gold Medal Award from the New York Eye and Ear Infirmary for outstanding achievements in otolaryngology, and selection in 1980 to the Royal Society of Medicine.

He was a member of 30 professional societies, among them the elite international Collegium Oto-Rhino-Laryngologicum Amicitiae Sacrum, limited to only 20 active otolaryngologists in the nation. He was past president of the American Society for Head and Neck Surgery, the American Laryngological Society, the Society of Academic Chairmen of Otolaryngology and the Triological Society.

In 1972 Ogura was appointed to the National Cancer Advisory Board by President Richard M. Nixon to complete the term of the late Wendell G. Scott, M.D., a professor of radiology at Washington University School of Medicine. Ogura was reappointed to the board in 1974 by President Gerald R. Ford for a full six-year term.

He wrote almost 300 articles for professional journals and chapters for 20 books, and delivered more than 100 lectures.

Ogura came to Washington University School of Medicine in 1948 as an instructor in otolaryngology. He became a full professor in 1960, and was named Lindburg Professor and head of the department in 1966. He served as a consultant in otolaryngology to the Jewish Hospital of St. Louis, St. Louis City Hospitals, Veterans Administration Hospital and St. John’s Mercy Hospital.

A native of San Francisco, he held the bachelor of arts and doctor of medicine degrees from the University of California. He served an internship at San Francisco County Hospital, an assistant residency in pathology and medicine at the University of California Hospital, and residencies in pathology and medicine at Cincinnati General Hospital of the University of Cincinnati College of Medicine. His postgraduate training also included an assistant residency in otolaryngology at the Barnes Hospital, a postgraduate course in otolaryngology at Washington University School of Medicine, and a residency in otolaryngology at McMillan Hospital, the Barnes Hospital and St. Louis City Hospitals.

Ogura is survived by his wife, Ruth, and by three children — John Ogura, M.D., of Houston; Peter Ogura of San Francisco, and Susan Ogura Bell of Indianapolis. In lieu of flowers, donations may be made to charity or to the Joseph H. Ogura Lecture Fund, Department of Otolaryngology, Washington University School of Medicine, 517 S. Euclid Ave., St. Louis, MO 63110.
Reunion '83

Washington University medical alumni and alumnae from the classes of 1928 and 1933 to the classes of 1968 and 1973 came to St. Louis from 30 states and Washington, D.C., to be part of Reunion '83's scientific sessions and social events on May 5, 6, and 7.

A full schedule of symposia was held in the Wohl Auditorium at the Washington U. Medical Center. The symposium on “Management of the Information Explosion” included information and demonstrations of personal computers and office- and information-automation devices. Moderator was Susan Crawford, Ph.D., professor of biomedical communications and chief librarian of the School of Medicine.

Speakers were: Steve Rentmeester on the American Medical Association/GTE Teledent system; Robert Drews, M.D. '55, on practical experience and advice about practice management information and office records, and Susan Crawford, Ph.D., on scientific information.

Equipment was set up, and hands-on opportunities abounded during the demonstration sessions following the symposium.

On May 6, the symposium focus was on ischemic heart disease, with sessions on non-invasive assessment of ischemic heart disease in the morning, and on newer modalities of treatment for coronary artery disease in the afternoon.

Saturday's program began with the “State Of The Medical Center” address by Samuel B. Guze, M.D. '45, Washington University vice chancellor for medical affairs, president of the medical center, and head of the department of psychiatry. (See separate article, p. 20.)

Under the umbrella title of “Overview of Selected Medical Center Projects” were four seminars. Geoffrey Herzig, M.D., associate professor of medicine, discussed bone marrow transplantation. Radiology professor Michael Ter-Pogossian, Ph.D., reviewed the newest developments in nuclear magnetic resonance. Julio Santiago, M.D., assistant professor of medicine, spoke about the use of insulin pumps. And David Scharp, M.D. '70, assistant professor of surgery, gave a presentation on islet cell transplantation. All of the symposia were arranged by the Washington University office of Continuing Medical Education. Attendees received 10.75 hours in Category 1 of the Physician's Recognition Award of the American Medical Association.

While the medical alumni and alumnae were in scientific sessions, their spouses and guests participated in a variety of tours and activities planned by the Spouses' Committee, chaired by Rosalie Parsons.

The social program for Reunion '83 included a welcoming cocktail party in the courtyard and lobby of the McDonnell Medical Sciences Building on May 5, separate dinners for the 11 reunion classes at various locations throughout St. Louis on May 6, and the gala dinner dance at the Marriott Pavilion Hotel on May 7, which was also attended by 70 members of the Class of '83.

The Alumni Council presented Alumni Faculty Awards and Alumni Achievement Awards. And for the second year, the Alumni Council presented Alumni Faculty Awards and Alumni Achievement Awards. And for the second year, there was a 55-year reunion class in attendance. Co-chairmen for the Class of '28 were Samuel D. Soule, M.D., and A. Norman Arneson, M.D. Class members in attendance were Drs. Ted Jean, John F. Patton, Edward Schaller and George Seib. The class invited as special guest the widow of classmate Dr. Guy Magness, Ella Mae Magness.
1983 Alumni Faculty Awards

Medical School Dean M. Kenton King, M.D., presents, at right, the first of three 1983 Alumni Faculty Awards to A. Norman Arneson, M.D. '28. With a career combination of obstetrics and gynecology and therapeutic radiology, Arneson has been an exemplary alumnus of the Washington U. School of Medicine since his graduation in 1928. His early work pioneered the use of radium and external radiation, with rigorous control of the dosimetry, in treatment of cancer of the female reproductive organs, and is credited with stimulating interest throughout the world in the use of these elements.

For almost 50 years, Arneson has been a dedicated and trusted physician of women throughout the St. Louis area, practicing at the old St. Louis Maternity Hospital, the Barnes Hospital, the Jewish Hospital, and St. Luke's Hospitals.

His academic appointments in the School of Medicine have ranged from assistant instructor to professor in clinical obstetrics and gynecology. He is currently professor emeritus of clinical obstetrics and gynecology, and associate professor emeritus of clinical radiology. He is in private practice of Ob/Gyn in St. Louis.

Arneson is a diplomate of both the American Board of Obstetrics and Gynecology and the American Board of Radiology. He was the second physician named diplomate by both groups. He also served as president of the American College of Obstetricians and Gynecologists, the American Radium Society, the Central Association of Obstetricians and Gynecologists, the St. Louis Medical Society, the St. Louis Gynecological Society, and the St. Louis Surgical Society. He has served the Washington University Medical Center Alumni Association as president in 1951-1952, and as alumni representative to the board of governors of Washington University.

The recipient of many professional awards, Arneson was also awarded the University's Alumni Citation on Founders Day in 1958 for his service to medicine and to the University. It is with pride that Washington University honors A. Norman Arneson, M.D. '28, with the Medical Center Alumni Association's 1983 Alumni Faculty Award.

(Charles W. Parker, M.D. '53, professor of medicine and of microbiology and immunology, holds his award certificate. He is seated next to his wife, Mary Parker, M.D. '53, and classmates Dr. and Mrs. Theodore Repp.

Presently, Parker is head of the Division of Allergy and Immunology, and is director of the Howard Hughes Medical Institutes' Laboratory for the Study of Clinical Immunology and Allergy. Parker recently received an honorary fellowship in the American Academy of Allergy and Immunology, a distinction reserved for scientists who have made unique and innovative contributions to hypersensitivity research.

Parker has written more than 275 scientific articles; his published works include several basic contributions which have advanced the fields of allergy, immunology and microbiology. His work was instrumental in the discovery and characterization of leukotrienes and prosta-glandins, particularly their roles in the human immune system.)
system. The further study of these two groups of intracellular messengers has evolved into a major research commitment at Washington University Medical Center. As a result of the work of Parker and his colleagues, WUMC enjoys the reputation of being on the leading edge of research in these fields.

Parker has spearheaded collaboration within the medical school and has worked to develop projects bridging the Howard Hughes Medical Institute with the departments of medicine, radiology, pharmacology and others. Recent projects include research on the desensitization of allergy patients, activation and cellular metabolism of lymphocytes, and early detection of cancer through the use of human monoclonal antibodies.

Parker received his undergraduate degree from Washington University. In his last year in medical school, he was inducted into the honorary society, Alpha Omega Alpha, and he received the Mosby Award. He took his postgraduate training on the ward medical service at Barnes Hospital, and was chief medical resident in 1958-1959. He received a Research Career Award from the National Institute of Arthritis and Infectious Diseases in 1962, and became head of the immunology division that same year. He was named professor of medicine in 1971, and professor of microbiology and immunology in 1975.

Parker is married to Mary Langston Parker, M.D. '53, who holds faculty positions in the departments of Medicine, and Preventive Medicine and Public Health, and directs the university's student health services. Together the Parkers have made unique and significant contributions to the School of Medicine, including Keith, class of '81; Charles, class of '82; twins Kathy and Christy, class of '83. Their youngest daughter will receive her B.A. degree from Washington U.

C. Alan McAfee, M.D. '42, was unable to attend the awards presentation ceremonies. George Rader, M.D. '51, accepted the certificate for him. McAfee is a member of Alpha Omega Alpha, the American College of Surgeons, the AMA, the Missouri State Medical Association, the St. Louis Surgical Society, and the St. Louis Medical Society. He was president of the Washington University Medical Center Alumni Association in 1966-1967. Included in his service to the St. Louis community are his appointments to the St. Louis Community, the Washington U. Advisory Board to the Medical Director of St. Louis City Hospital. He was chairman of the Unit I Advisory Committee, St. Louis City Hospital.

He has published numerous articles on surgery, and has received such honors as the U.S. Marine Corps Commendation Ribbon, the St. Louis City Hospital Award, and the Washington U. Founders' Day Citation.

C. Alan McAfee has enhanced and improved every institution with which he has been associated, and he has consistently fashioned great surgeons from young physicians throughout his exemplary career.
1983 Alumni Achievement Awards

Jack Barrow, M.D. ’46, displays his Achievement Award certificate to his dinner companions.

Students, alumni, and faculty of the School of Medicine have benefitted for more than a decade from Barrow’s unselfish contributions to the Alumni Association and to Washington U. During the past 12 years, he has brought his talents to bear on virtually every position within the Medical Center Alumni Association. He was the 1971-1972 president of the Association, and has been a member of every one of its committees.

Currently he chairs the Alumni Placement Service and the Alumni/Graduate Program. He was instrumental in founding the placement service, which offers medical alumni the opportunity to advertise available positions directly to house staff physicians at the hospital and can help introduce them to their new communities.

A native of Carbondale, Illinois, Barrow served his internship at St. Louis City Hospital and held a fellowship in medicine at Washington U. School of Medicine, where he went on to spend three years as a National Research Council Fellow in Medicine. His military service included posts as a ward medical officer at the U.S. Naval Hospital in Philadelphia, an investigator at the Naval Medical Research Institute in Bethesda, and a medical officer at the U.S. Naval Hospital in San Diego and the U.S. Naval Auxiliary Air Station in Miramar, California. He is currently a retired Marine Corps commander in the U.S. Naval Reserve.

Barrow joined the staff of Washington U. School of Medicine in 1951 as an assistant in clinical medicine and became assistant professor of clinical medicine and associate physician at the Barnes Hospital in 1975. Since 1955 he has been an associate staff physician at St. Luke’s and Deaconess hospitals in St. Louis. He has also served as a consultant in infectious diseases to St. Louis City Hospital Unit 1, as director of house staff training at Deaconess Hospital, and as a visiting physician at the Veterans Administration Hospital and the St. Louis City Hospital.

Barrow is a diplomate of both the American Board of Internal Medicine and the American Board of Allergy and Immunology. He is a member of several professional societies, among them the American Academy of Allergy, the American College of Physicians, the American Society of Internal Medicine, and the St. Louis Metropolitan Medical Society. He is an emeritus member of the American Federation for Clinical Research. The 1983 Medical Center Alumni Achievement Award is presented to Dr. Jack Barrow to recognize his outstanding achievements and immeasurable service to the Association, to his profession, and to his patients.

Russell John Blattner, M.D. ’33, is a pediatrician who has merited countless honors and awards, and has gained the admiration and respect of colleagues throughout the world during his 35-year career. Perhaps his greatest accomplishment has been his development of the Department of Pediatrics at Baylor College of Medicine in Houston and the establishment of the Texas Children’s Hospital which he planned and which has emerged as a multidisciplinary subspecialty hospital. Today, in his travels throughout the U.S. and the world, Blattner’s former residents welcome his visits.

A native of St. Louis, Blattner served an internship in pathology at the Barnes Hospital, and a residency in pediatrics at the St. Louis Children’s Hospital, with the last six months of his residency at Princess Elizabeth of York Hospital for Children in London. He joined the staff of the pediatrics department at Washington U. School of Medicine in 1937 and stayed for ten years until departing for Texas.

Many of his most significant contributions to the medical profession were made while he was professor and chairman of the
Department of Pediatrics at Baylor College of Medicine from 1947 through 1977, and as physician-in-chief at Texas Children's Hospital from 1952 through 1977, when he retired. He remains active in the training of physicians through his Distinguished Service Professorship, which he has held since 1968. He is also director of the Department of Continuing Education at Texas Children's Hospital, and recently accepted a position with the Well Child Clinic in Houston, where he teaches Baylor students and treats infants and children.

Blattner has written more than 100 articles for the professional journals. He is a fellow of the American Academy of Pediatrics and the American Association for the Advancement of Science, and is a member of many professional societies, including the American Medical Association, the American Pediatric Society, the International Pediatric Society, New York Academy of Sciences, the Society for Pediatric Research, and the Texas Pediatric Society.

He has received citations and honors from Washington U. School of Medicine and from many civic and professional organizations. He was the first recipient, and the namesake, of the Blattner Ambulatory Pediatric Fellowship, presented annually by the Junior League of Houston. The Baylor Pediatric Alumni Association established the Russell J. Blattner Lectureship, an annual pediatric postgraduate symposium. The Houston Pediatric Society created the Russell J. Blattner Library Fund at the Texas Medical Center Library in his honor.

For his humanitarianism and commitment to the education of physicians, the Washington U. Medical Center Alumni Association is honored to present the 1983 Alumni Achievement Award to Russell John Blattner, M.D. '33.

C. Read Boles, M.D. '43, returns to his table with his Alumni Achievement certificate.

C. Read Boles' 40-year career exemplifies a concept of service to patients, community, profession, and education which brings honor to Washington University.

He received both his A.B. and M.D. degrees from Washington U., and served his internship at the Medical Center's affiliated hospitals (Barnes, Maternity, and St. Louis Children's). After three years in the U.S. Army Medical Corps and post-graduate work in pediatrics at Harvard, Boles returned to St. Louis Children's Hospital for residency training. He has been in the private practice of pediatrics, and on the staff of St. Louis Children's Hospital since 1949, and on our School of Medicine's clinical faculty since 1950.

He was certified by the American Academy of Pediatrics in 1950, and has served the Academy as assistant state chairman, and as state chairman for three years. Long a member of the Missouri State Medical Society, he has served on the Maternal and Child Health Committee and the Long-Term Planning Committee. He has been a convention delegate, treasurer, and president of the St. Louis County Medical Society, and earned the Society's Award of Merit in 1977.

In addition to being a Fellow of the American School Health Association, Boles has been pediatrician for the Community School, Edgewood Children's Center, Grace Hill House, and the St. Louis County Well Baby Clinic. He served on the boards of South Side Day School Nursery, Delta Gamma Foundation for the Blind, and St. Louis Speech and Hearing Center, and is a past chairman of the St. Louis County Health and Hospital Advisory Board. In 1974, he was one of the organizers of the Missouri State Child Care Coordinating Council, which he later chaired. He has generously given his leadership and experience to many metropolitan, regional and statewide organizations for health planning and care. He is currently active on the medical advisory board of Life Seekers, which funds care of the newborn throughout the metropolitan St. Louis area.

Boles was a member of the board of the Washington U. Medical Center Alumni Association from 1962 through 1965, and was president of our Association in 1968-1969. He served on the Medical National Committee of the important and successful Washington University "70 by '70" campaign.

In recognition of his concern and caring for children — whether well, ill, or disabled, whether in his office or in hospital, clinic or school — in honor of his service and leadership to improve health care and his work for the future of education and the future of Washington University, the Medical Center Alumni As-
Society is honored to present the Alumni Achievement Award of 1983 to C. Read Boles, M.D.

Samuel D. Soule, M.D. ’28, received his Alumni Achievement citation and another special award, from his wife, Selma.

Samuel D. Soule, a founding fellow of the American College of Obstetricians and Gynecologists, is distinguished not only in patient care, but also for his efforts in education for children, adults and his professional colleagues. For more than 50 years, Soule has been the beloved and trusted obstetrician and gynecologist for hundreds of patients at the old St. Louis Maternity Hospital, the Barnes Hospital, Washington University Clinics, the Jewish Hospital of St. Louis, Jewish Sanitorium, the St. Louis Children’s Hospital, and the Sheridan Medical Group. He served as consultant to Youth Emergency Services and to Cochran Health Center.

He has expressed his interest in, and concern for, education for better public health in a variety of ways and for a variety of constituents. As a member of the St. Louis Medical Society, he served on the Health and Public Instruction Committee, and the Health and Public Relations Committee. He was a member of the Radio and Television Committee, and a radio-and-television adviser for the St. Louis Medical Society. He was honored as a Life Member of the Society, as well as of the American Medical Association, in 1977.

To advance science education among the public and within the profession, Soule has chaired the St. Louis Medical Society Science Fair Committee and served on the Media Relations Committee for the Fair. He has been a member of the St. Louis Society for Medical and Science Education since 1978, and served on the Board of Directors of the Mark Twain Summer Institute, a program for academically gifted teenagers from the St. Louis metropolitan area.

Among the religious, civic, and scientific organizations upon whose boards he has served are: Life Seekers, St. Louis Children’s Research Foundation, the Jewish Federation of St. Louis, the Jewish Children’s Welfare Association, Jewish Family and Children’s Service Agency, and Temple Israel.

Soule’s research and scholarship accomplishments include the study of the roles of hormones in pregnancy, the effects of diseases and medications on pregnancy, and surgical techniques in obstetrics and gynecology. Soule was elected to Alpha Omega Alpha in 1928.

In 1975, he turned his intellect and writing prowess to the cause of medical history, writing papers on six physicians prominent in the founding of the St. Louis Medical Society. He is the author of several historical manuscripts on medicine and medical schools in St. Louis. These historical works have appeared in the Bulletin of the St. Louis Medical Society, St. Louis Medicine, and the Journal of the Missouri State Medical Association. Several of his historical series have been collected and published as volumes.

In addition to medical history, Soule is also historian and correspondent for the Washington U. School of Medicine Class of ’28. He has long been active in the Medical Center Alumni Association and has served as chair of the Alumni Relations Committee and as vice president of the Association. Since 1980, Soule has served as the chairman of the Dean’s Committee of the Medical Century Club. In 1969 a gift established the Samuel D. Soule Award in Obstetrics and Gynecology to honor distinguished scholarship by a member of the third- or fourth-year class.

Through the years, the elected officers and individual members of the Washington U. Medical Center Alumni Association, and the association’s staff have benefited from the leadership, energy, attention, insight, judgment, and kindness of Samuel D. Soule. The 1983 Alumni Achievement Award is given with affection to honor Samuel Soule by the Alumni Association and the many of us whose lives he has so significantly touched.
Obviously pleased, Richard Y. Sakimoto, M.D., shows his Special Citation to a classmate at the dinner table.

Richard Y. Sakimoto, M.D. '33, went home to Hawaii in 1938, after completing his resident training at Washington University, Maternity, and Barnes hospitals. When he began his practice in Honolulu, he was the Islands' first board-qualified obstetrician and gynecologist.

A founding fellow of the American College of Obstetricians and Gynecologists, Sakimoto overcame a myriad of difficulties in establishing and building an ob/gyn practice in a resort area with a mobile population. His personal style, meticulous records, and high standard of medical care merited the respect and honor of all segments of Hawaiian society, and he became a role model for aspiring physicians on the Islands. He is well known for his outstanding help to Hawaiian graduates of Washington U. School of Medicine who seek to return home to pursue their careers in academic or clinical medicine.

Active in the alumni association of the University of Hawaii, and recipient of that institution's Distinguished Service Award, Sakimoto is a strong advocate for Washington University School of Medicine. He is consistent in sharing his knowledge of, and praise for, our school among his friends and associates who are academic, civic, and social leaders in Hawaii.

Sakimoto has always supported the School of Medicine in a very meaningful, warm, and personal way. He is a gracious and generous host to Washington U. faculty and alumni, and to his colleagues and classmates who visit Hawaii. They can count on a warm welcome to his home and aboard his 55-foot sportfishing cruiser, Kamome. More of his warmth and generosity is shown when he brings a bit of the Islands, orchids and leis, to Alumni Council meetings, reunions, and conferences in St. Louis.

Richard Sakimoto, M.D., is truly Washington University's emissary of good will in the Hawaiian Islands, where his colleagues and friends have dubbed him "The Hawaiian Dean of Medicine." Washington University Medical Center Alumni Association is happy and proud to recognize all of the levels of service, friendship, and commitment shown again and again by Richard Sakimoto to this Association and to its members.

Reunion is a time for renewing old friendships ... and telling or hearing new jokes.
Class of 1928
Seated: Drs. Seib, Reese, Hildreth, Jean, and Patton.
Standing: Drs. Schaller, Soule, Trotter, Arneson.

(All class photos by McCarty Studio)

Class of 1933
Front center: Drs. Sakimoto and Blattner.

Class of 1938
Standing: Drs. Rose, Silverberg, Mulster, Mangum, Findley, Kimelman, Smith, Hughes, Meeker, Blaney, Brookes, Pratt, and Ruff.
Class of 1943M
Seated: Drs. Ellis, Nancey, Stauss, Charnas, Firminger, Bergner, Lemoine, Guterman, Feldman, and Modern.

Class of 1943D
Center front: Dr. Miller.
Front row: Drs. Wilson, Stadler, Alex, Covington, Clay, Wiegard, Mallory, Moore, and Boles.

Class of 1948
Seated: Drs. Huck, Rifkin, R. Johnson, Burstein, J. Malin, Huckstep, and Behrens.
Class of 1953
Top row: Drs. C. Parker, M. Parker, McClure, Miller, Turner, Nelson, Bowles, Heeb, Commerford, Jones, Page, Burrus, Repp, and Newport.

Class of 1958

Class of 1963
Class of 1968
Seated: Drs. Gregg, Nachenberg, P. Shackelford, Smith, and Brock.

Class of 1973

From left to right: Charles Norland, M.D., '59, M. Kenton King, M.D., Dean of the School of Medicine, June King, Samuel B. Guze at the dinner dance. Norland is the 1983-84 president of the Alumni Association.
And How They Danced ...
Make the Connection

The computerized data bank being established by Washington University's alumni and development office will result in a new WUMCAA alumni/alumnae directory next year, and more frequent and accurate updated editions in the future.

The system will make it possible to list medical school graduates and those who took post-graduate training at the Washington University Medical Center member hospitals by medical specialty and geographic location, as well as by class year and the ever-popular alphabetical order.

All graduates and former house-staff physicians will soon receive a survey questionnaire in the mail. Current data such as name, address and class year will be printed on the form. Please make any changes, fill in any empty blanks, and return the survey form as soon as possible.

The new information system will help the University's alumni and development staff with such activities as admissions, post-graduate placement, and continuing education for all schools. The School of will be the first data base established and brought into use. The WUMCAA expects the expanded information and online access to the data bank to be helpful in the Network Cities program and in planning and hosting receptions at the major medical specialties conferences throughout the country.

Washington U.'s present computer system for alumni and development records, established in the 1960's, was the first such system in the country. It became a model for many other universities and colleges in the U.S. The new system, which does not require new "mainframe" equipment, will accommodate more data and provide online terminal access in the offices of the WUMCAA. In the field of computer applications, it is considered to be on the leading edge of programming technology.

But its ultimate success depends on you, and on how and when you fill out your survey form. We are counting on you to make the new system work.

Charles C. Norlund, M.D. '59

President, Washington University Medical Center Alumni Association