Applause! Applause! It was, deservedly so, widespread at graduation time. The Minority Medical Alliance applauded Dr. Herweg and their parents. These graduates are shown applauding their class president. And everyone applauded commencement speaker Howard Nemerov, poet and professor. The story begins on page 12.
On the cover:
The medical school's diploma. It's a sign of the times — graduation time.
"If for the sake of a crowded audience you do wish to hold a lecture, your ambition is no laudable one," Hippocrates wrote, "and at least avoid all citations from the poets ... " The audience was crowded, and there was no lecture. Hippocrates notwithstanding, the Class of '81 invited Washington University's premiere poet, Howard Nemerov, to be commencement speaker. The story begins on page 12.
Research Update: Major New Funding

Nervous System Cell Surfaces

The National Institutes of Health has awarded a 3-year grant of approximately $235,000 to support a multidisciplinary, interdepartmental study of the role of cell surface in development. The grant is a joint effort of Richard Bunge, M.D., Professor of Anatomy and Neurobiology; Elliot Elson, Ph.D., Professor of Biological Chemistry; Luis Glaser, Ph.D., Professor and Head of the Department of Biological Chemistry, and David Gottlieb, Ph.D., Associate Professor of Anatomy and Neurobiology.

The cell surface is an important component in the regulation of how cells grow, and is of obvious importance in how cells recognize their environment. The cell surface acts not only as a target for binding many types of hormones (resulting in an intercellular signal which is responsible for the hormones' effects) but the cell surface also recognizes the presence of many other components in the cell's environment including components of the extracellular matrix and the presence of other cells. As a result of the detection of all of these signals through the cell surface, cells reach some decisions as to whether to grow or not to grow, whether to differentiate and along which pathways they wish to differentiate. This information transfer between the outside and the inside of the cell is important for normal growth and is one of the characteristic differences between normal and malignant cells.

The researchers will study cell surfaces in a variety of systems and using a variety of techniques. The cooperation between a number of laboratories allows the application of several different and complementary approaches. Among the systems to be used, the one that is of great interest is the interaction between axons in Schwann cells. Tissue culture systems developed over a number of years in the laboratory of Dr. Richard Bunge have allowed the preparation of cultures containing only two cell types, Schwann cells and neurons derived from dorsal root ganglia of rat embryos.

One of the components in the research proposal is to study the interaction between Schwann and axon. The function of the Schwann cells is to grow alongside the axons, ultimately to ensheathe them and provide an insulation around them in the form of myelin. Work initiated by James Salzer, M.D., Ph.D., in collaboration with Bunge and Glaser, and continued currently by Dan Cassel, Ph.D., and Patrick Wood, Ph.D., has shown that Schwann cells will not grow unless they are physically in contact with the surface of an axon.

The proposed work in this project aims to isolate and characterize the proteins on the surface of the axons involved in the growth and regulation of Schwann cells.

While it is impossible to discuss all of the projects involved in detail, the interdepartmental interaction represented by this kind of project is an indication of one of the strengths of Washington University where a number of investigators in different laboratories are able to interact and bring their combined expertise to bear on important biological questions.
Milestone on Chromosomes

Maynard V. Olson, Ph.D., Assistant Professor of Genetics, has received a five-year grant for $425,246 from the National Institutes of Health for a study entitled "Physical Mapping of Yeast Chromosomal DNA."

The budding yeast, *Saccharomyces cerevisiae*, which is used in baking and brewing, has become a key experimental organism in contemporary molecular biology. Its importance arises because it is the simplest well-studied, example of a eukaryotic (nucleated) cell. In its gene and chromatin structures, as well as in its mitotic and meiotic cell division cycles, yeast displays characteristics typical of the cells of higher organisms. For basic molecular biological studies, however, it has numerous advantages. For example, yeast cells are easy to grow; they contain only 0.2% as much DNA as is found in mammalian cells; and it is possible to carry out highly detailed genetic studies.

Olson's project involves an effort to use a combination of computer-based data handling methods and recombinant DNA techniques to determine the exact physical map of yeast chromosomal DNA. The seventeen yeast chromosomes are thought to include fifteen million DNA base pairs, which encode the information for several thousand genes. The physical mapping of these chromosomes will involve locating the positions at which a class of site-specific endonucleases, known as restriction enzymes, cleave the chromosomal DNA. The enzymes employed in this study cleave yeast DNA at several thousand sites. A complete map, therefore, will provide a set of physical landmarks separated by distances sufficient to encode one or a few genes.

The potential usefulness of such a map arises because it will allow a much more precise determination of the way in which such functional units as genes, DNA replication origins, and moveable DNA sequences are arranged on the yeast chromosomes.

Yeast chromosomal DNA is one hundred times more complex than any DNA that has yet been physically mapped. Success in this project will depend, therefore, on the development of a set of new techniques which may help pave the way towards the physical mapping of human chromosomal DNA. The computer-based data acquisition and data analysis aspects of this project are being carried out in collaboration with Washington University's Biomedical Computer Laboratory.
Can Lymphocytes Fight Multiple Myeloma?

Richard G. Lynch, M.D.

Research Update: Major Funding for New Studies

Richard G. Lynch, M.D., Associate Professor of Pathology, was recently awarded two NIH grants amounting to more than $600,000 to support continuation of his search for specialized lymphocytes to combat multiple myeloma. There are about 10,000 new cases of myeloma each year in the United States. The cause of myeloma is unknown, but the cancer originates in bone marrow lymphocytes.

There are a large number of different kinds of normal lymphocytes. One type, an immunoregulatory suppressor T lymphocyte, ordinarily regulates the activities of a second type, termed an antibody-producing lymphocyte. Lynch and his coworkers, Richard Hoover, M.D., Howard Urnovitz, Ph.D., Ruth Mordhorst, and Brian Dieckegraefere have discovered that immunoregulatory suppressor T lymphocytes are greatly increased in mice with myeloma.

This finding is particularly interesting because the malignant cells in multiple myeloma develop from antibody-producing lymphocytes. "The appearance of large numbers of immunoregulatory lymphocytes in myeloma is an appropriate response which we believe is an attempt by the host to suppress the malignant myeloma cells," says Lynch. Whether the suppressor T lymphocytes actually influence the myeloma growing in the mouse is not yet clear, but Gary L. Milburn, Ph.D., another member of the team, has succeeded in showing that suppressor T lymphocytes can inhibit myeloma cells grown in tissue culture. "The finding of increased immunoregulatory T lymphocytes in mice with myeloma prompted us to examine humans with multiple myeloma."

In collaboration with Scot Hickman, M.D., a Washington University hematologist, Howard Gebel, Ph.D., of the Pathology Department, and Neil Rebbe, a graduate student in Dr. Hickman's laboratory, we examined newly diagnosed patients with myeloma seen at Barnes Hospital and The Jewish Hospital of St. Louis. We found that patients with myeloma also had very large numbers of immunoregulatory T lymphocytes in their blood."

One of the research grants, "Fc receptor-bearing T lymphocytes in murine myeloma," is to support studies to purify large numbers of immunoregulatory lymphocytes in order to determine the molecular basis of their suppressive activity. "We believe that the reason these cells do not effectively suppress the growing myeloma is because these lymphocytes do not appear until very late in the course of the disease."

Current research involves collecting T lymphocytes from a mouse with myeloma, inducing myeloma in another mouse and injecting the lymphocytes early in the course of the disease. "If this proves to inhibit the production of myeloma cells," Lynch said, "it might be possible to collect and store a patient's suppressor T lymphocytes, treat the patient with conventional chemotherapy to reduce the numbers of myeloma cells, and then reintroduce the lymphocytes to inhibit persisting myeloma cells."

The need to collect and store the patients' lymphocytes is because the drugs used to treat myeloma also kill the suppressor T lymphocytes. Very recently we succeeded in inducing large numbers of immunoregulatory lymphocytes from normal lymphocytes in tissue culture, and we are attempting to propagate these cells so that we can obtain very large numbers of them."

The other research grant, "Immunoregulation of Murine Myeloma," is to support continuing studies dealing with a different set of immunoregulatory lymphocytes which are induced by immunization with the antibody molecules produced by the malignant myeloma cells. "It appears that there are several immunoregulatory circuits involving suppressor T cells," said Lynch. "One circuit is activated by the growing myeloma and a separate circuit is activated by immunization. In addition to the potential for therapeutic manipulation of myeloma in humans, these studies are providing us with new insights into the organization and regulatory interactions of the normal immune system."

Lynch presented the results of these studies at an international symposium in Vienna, Austria in March. Lynch, who has been appointed Chairman of the Department of Pathology at the University of Iowa College of Medicine (effective July 1) will continue his research there along with Drs. Milburn, Hoover and Urnovitz. He has been with Washington University since his internship in 1966.
Regulating Inflammation

Paul H. Schlesinger, M.D., Ph.D., Research Associate Professor of Physiology and Biophysics, has received a three-year grant funded for $103,500 in the first year from the National Institutes of Health to study "Receptor-Mediated Transport of Glycoproteins" and the reticulo-endothelial system. The macrophage is a major component of the reticulo-endothelial system and is widely distributed throughout the body. Because it actively participates in phagocytic inflammatory and immunologic processes, macrophages seem to be important in the body's response to many forms of insult. Macrophages can engage in the phagocytosis of bacteria and particles and, in many cases, lead to neutralization of harmful agents. They are also intimately involved in the production of inflammatory responses and the immune phenomena. To aid in the performance of these functions, macrophages are endowed with a formidable array of lysosomal enzymes. The enzymes have a potent digestive capacity which the macrophage uses in its physiologic functions.

To prevent auto-digestion, the cell packages these enzymes in vesicles (lysosomes) and then brings the vesicles together with the object of intended digestion. Several years ago, Schlesinger and Philip Stahl, Ph.D., Associate Professor of Physiology and Biophysics, described a membrane receptor in macrophages which was capable of specifically binding lysosomal enzymes and moving them from outside the cell into the lysosomes. The process is called endocytosis. Because lysosomal enzymes are frequently released from cells during inflammation, Schlesinger and Stahl reasoned that endocytosis might be a suitable mechanism for recapturing the lysosomal enzymes and regulating this aspect of the inflammatory process. This is especially significant in pulmonary tissue, where it has been demonstrated that excessive extracellular levels of digestive enzymes can lead to severe emphysema in experimental animals.

Schlesinger has undertaken a detailed study of the process by which pulmonary macrophages internalize lysosomal enzymes from the surrounding media. The study includes the mechanism by which these cells identify specifically the receptor-enzyme complex and then cause it to move into the lysosomal vesicle rather than into other intracellular compartments. Using several physical and biological approaches, Schlesinger and his colleagues have been able to show that the receptor recognizes specific carbohydrate residues covalently attached to the lysosomal enzymes. These carbohydrate residues are glycoproteins. The receptor binds the enzyme via the carbohydrate structure and transports the enzyme to the lysosome where it is released. The receptor then returns to the cell surface where it can repeat the process.

Schlesinger and his colleagues are currently engaged in a number of studies to elucidate the biochemical mechanisms of this complex process and determine how the cell can regulate the various steps involved to complete the physiologic task of endocytosis.
Honoring
Estelle Brodman, Ph.D.D.

The Special Libraries Association has selected Estelle Brodman, Ph.D., head librarian at the Washington University School of Medicine and professor of the history of medicine, to receive its prestigious John Cotton Dana Award for library public relations. The award, which was established in 1946, is granted in recognition of exceptional services by members of the Special Libraries Association. A letter from Association president James B. Dodd also stated that the award "is also a token of the high esteem in which Dr. Brodman is held by her colleagues."

The award is named for one of the most prominent and innovative librarians in American history, a man whose ideas about the management of libraries to bring them actively into the communities they serve set the stage for much of what is now taken for granted in library services. John Cotton Dana was born in Woodstock, Vermont, in 1856 and was graduated from Dartmouth in 1878. For the next 11 years, he held a variety of jobs, helping survey mining areas in Colorado, practicing law and editing a newspaper in Minnesota, working in railroad real estate, surveying, preaching and ranching in Colorado. A letter to a Denver paper about the quality and relevance of public education drew the attention of the Denver school board and started his career as a librarian.

Dana took charge of the local high school library which also served the community and later became part of the Denver Public Library System. An energetic publicist for the public library, Dana initiated the use of art exhibits in libraries, established the first children's library with special books and furnishings, selected books for teachers to use in classrooms, simplified borrowing procedures and promoted library services to civic and social clubs. He also provided medical books to the local medical society. He encouraged librarians to extend services to schools, clubs, churches, newspapers, business and professional groups, and he promoted cooperation among libraries.

Later in his career, Dana was head of the City Library Association of Springfield, Massachusetts, and then chief librarian in Newark, New Jersey. His library innovations include improved accessibility through the use of open shelving, minimizing stairs and installing elevators, and inviting groups to hold meetings and lectures in library facilities. He set up interlibrary loan procedures, lengthened hours of service, and increased collections of books and pamphlets directly related to the economic base of the city in Newark, technical education and industrial design. He also began the custom of traveling exhibits and collections, and established America's first collection of business materials.

John Cotton Dana organized and founded the Special Libraries Association in 1909, and continued his interest in community libraries, good printing and the art of bookbinding. Dana's accomplishments constitute a standard against which candidates for the John Cotton Dana award are evaluated.

Letters nominating Estelle Brodman indicate why she was selected to receive this year's award. "She is a multi-talented distinguished librarian," wrote one nominator, "author, editor, lecturer, professor, consultant, information scientist, documentation expert and speaker par excellence; a 'power house' in the transmission and distribution of special librarianship." The nominator also stated that Brodman has served on the board of the Special Libraries Association, was head of the Biological Sciences Division, and is often called "the Dean of Special Librarians."

Perhaps her most prominent area of expertise is computer applications in special libraries. Brodman initiated and developed a computerized system known as PHILSOM (Periodical Holdings in Libraries of Schools of Medicine), first as a system serving only the Washington University School of Medicine. However, PHILSOM now provides services for more than 20 percent of the medical libraries in the country. Its program and systems principles are adaptable to other special libraries.

Brodman is also highly regarded as a scholar and teacher. Librarians from around the United States and from India, China and Japan have trained at the library of the School of Medicine. One nominator wrote: "Dr. Brodman has always emphasized research, publication, teaching and cooperation, and as a result, many special libraries have benefited directly and indirectly from her work."

Another librarian supporting her nomination wrote: "Her characteristics that have meant most to me are the thorough scholarship she has brought to every endeavor, and her willingness to help the small group or the person who had not yet 'arrived.'" Since the 1960's, Brodman has provided annual, nationally recognized workshops training interns in library automation and management. She has developed skilled staff members who have taken leadership positions in other libraries, and continues to expect her staff to study, publish and innovate.

Estelle Brodman received her B.A. from Cornell University in History and Embryology; her B.S. and M.S. in Librarianship from Columbia University; and her Ph.D. in the History of Medicine from Columbia University. She also holds an honorary D.Sc. from the University of Illinois Medical School. Among her many honors are the Gottlieb Award for Medical History and the Marcia C. Noyes Award for Distinguished Librarianship, both presented by the Medical Library Association; and the designation as Woman Of The Year in 1963 by the St. Louis Chapter of the AAUW. She has served as consultant for documentation in New Delhi, India, for the World Health Organization, the United Nations Fund for Population, and the Central Family Planning Council under the United Nations Technical Assistance Board. She has helped many medical schools establish their libraries, has served on the President's National Advisory Commission on Libraries and on the Library Guidelines Committee of the American Association of Medical Colleges. She has been president of the Medical Library Association and Director of the Special Libraries Association. She has written two books on medical librarianship and approximately one hundred articles on librarianship and education, medical libraries, and medical history.

A member of the faculty of Washington University since 1962, Estelle Brodman, Ph.D., retired on July 1, 1981. The School of Medicine established a fund for the annual Estelle Brodman Lecture, the first of which was held on May 18. Eugene Garfield, Ph.D., of the Institute for Scientific Information in Philadelphia, editor of Current Contents and developer of the Science Citation Index, spoke on "Significant Science and Research Productivity: Can We Identify and Evaluate It?" Brodman was honored upon her retirement at a dinner in June at which she was presented with a silver tray.
Match Day 1981

Pavers on the path to the future, internship contracts are aligned on the stage of Cori Auditorium. John D. Vavra, M.D., Assistant Dean for Post Graduate Training, posted statistics on the chalkboard before addressing the assembled seniors.
The general joviality in the auditorium gave way to intense attention as Vavra began his talk.

T

he annual early-spring exercise in intense anxiety, known as Internship Match Day, took place around the country on March 18, 1981. The excited conversations and nervous laughter among the class in Cori Auditorium muted gradually as John D. Vavra, M.D., Assistant Dean for Post-Graduate Education, chalked some basic numbers on the board and turned to the audience to explain their meaning. A total of 95 students in the graduating class of 133 matched to their first, second or third choices in the national computerized matching program. Fifty-eight matched to their first selections; 18 to their second and 19 to their third choices. The Class of '81 will find themselves next year in 29 states and the District of Columbia. The St. Louis area will retain 46 graduates. California will gain 17, and Illinois will gain 11. The other states in the list of 29 will receive from one to five new M.D.'s.

Internal Medicine was the field of choice for 59 graduating seniors, followed by surgery with 19. Thirteen selected Pediatrics, and a dozen chose flexible internships. Seven are going into Family Practice, six into Obstetrics and Gynecology, and five into Anesthesiology. The specialties of Orthopedic Surgery, Psychiatry and Radiology each drew two graduates. Following is a list of internship matches by state.

ALABAMA

Birmingham
University of Alabama
Ernest R. Greene, Jr., Anesthesiology
University of Alabama Medical Center
Stephen W. Lacey, Internal Medicine

ARIZONA

Phoenix
Good Samaritan Hospital
Myron Tanenbaum, Internal Medicine
Tucson
University of Arizona Health Sciences Center
Gary D. Frank, Surgery
Alan M. Grobman, Internal Medicine

CALIFORNIA

Loma Linda
Loma Linda University
Daniel S. Cosgrove, Internal Medicine
Los Angeles
University of California Hospitals
Tye J. Ouzounian, Orthopedic Surgery
University of Southern California Medical Center
James M. Ashton, Internal Medicine
Oakland
Oakland Naval Regional Medical Center
Leo Kusuda, Surgery
Orange
University of California (Irvine)
Affiliated Hospitals
David T. Harris, Internal Medicine
Sacramento
University of California (Davis)
Affiliated Hospitals
Delbert L. Wright, Anesthesiology
San Diego
Mercy Hospital
Todd A. Denholm, Flexible
University of California San Diego
Affiliated Hospitals
James F. Bennett, Surgery
William T. Stewart, Orthopedic Surgery
U.S. Navy Medical Center
Jean E. Butcher, Obstetrics & Gynecology
San Francisco
University of California Hospital
Bruce A. Bach, Internal Medicine
Eric S. Schweitzer, Postdoctoral Fellowship in Physiology
Stanford
Stanford University Hospital
Carl E. Freret, Internal Medicine
Donald E. Rediker, Internal Medicine
Judith J. Ryon, Pediatrics
Ventura
Ventura County General Hospital
Lanyard K. Dial, Family Practice
Mary E. Dial, Family Practice

COLORADO

Denver
University of Colorado Affiliated Hospitals
James P. Loehr, Pediatrics

CONNECTICUT

New Haven
Yale-New Haven Medical Center
Robert Paine, III, Internal Medicine

GEORGIA

Atlanta
Grady Memorial Hospital
Molly E. Eaton, Internal Medicine
Brian C. Organ, Surgery

ILLINOIS

Chicago
Loyola University Affiliated Hospitals
Suzanne Y. Lee, Internal Medicine
McGaw Medical Center
Valerie Armstead, Anesthesiology

INDIANA

Indianapolis
Indiana University Medical Center
William P. Davey, Internal Medicine
Marjorie D. Davis, Pathology
Methodist Hospital
John D. Ray, Jr., Flexible

IOWA

Iowa City
University of Iowa Hospitals
Lesley A. Furlong, Obstetrics & Gynecology
Michael J. Lenardo, Internal Medicine

KANSAS

Wichita
Charles K. Jones, Family Practice

MARYLAND

Baltimore
Mount Sinai Hospital
Gerald Gantz, Internal Medicine

BETHESDA

Bethesda Naval Hospital
Leslie W. Hall, Internal Medicine

MASSACHUSETTS

Boston
Boston University Affiliated Hospitals
Timothy J. Herbst, Surgery
Harvard Medical School
Michael R. Green, Postdoctoral Fellowship in Biochemistry and Molecular Biology

New England Medical Center Hospital (Tufts Service)
Janis C. Kahn, Obstetrics & Gynecology

Worcester
University of Massachusetts Affiliated Hospitals
Ross W. Porter, Pediatrics

Ann Arbor
University of Michigan Affiliated Hospitals
Alan L. Hinderliter, Internal Medicine

St. Louis
Barnes Hospital
Ralph P. Bucy, Pathology
Joseph R. DeSantola, Internal Medicine
Darcy A. Duncan-Myers, Pathology
Jeffrey L. Duncan-Myers, Pathology
Edgar L. Engel, Obstetrics & Gynecology
Gary J. Kurtzman, Internal Medicine
Anthony M. Newell, Anesthesiology
Carol J. Pearis, Anesthesiology
Lawrence D. Piro, Internal Medicine
Clay F. Semenkovich, Internal Medicine
Janice W. Semenkovich, Radiology
Genevieve M. Yue, Internal Medicine
The Jewish Hospital of St. Louis
Kurt M. Anderson, Surgery
Ellen F. Binder, Internal Medicine
James B. Breitmeyer, Internal Medicine
William M. Gee, Internal Medicine
Charles D. Goldman, Surgery
Robert A. Gross, Internal Medicine
Laura R. Hulbert, Obstetrics & Gynecology
Micki Klarman, Internal Medicine
Fredric H. Klopf, Internal Medicine
Cathy J. Lazarus, Internal Medicine
David Levine, Internal Medicine
Mark A. Mintun, Internal Medicine
Bancroft O'Quinn, Jr., Surgery
Valerie S. Schowb, Internal Medicine
David E. Thompson, Internal Medicine
St. John's Mercy Medical Center
Sara L. Anscheutz, Flexible
Ellis B. Nosroph, Flexible
Robert M. Satz, Internal Medicine
David M. Tarlow, Flexible
Jeffrey V. Winston, Flexible
St. Louis Children's Hospital
Michele R. Berman, Pediatrics
Aaron Hamvas, Pediatrics
Michele E. Kemp, Pediatrics
Laura M. Moody, Pediatrics
Janet D. Mosley, Pediatrics
Martin D. Rudloff, Pediatrics
Warren J. Steinmuller, Pediatrics
Douglas C. Watson, Pediatrics
Washington University Affiliated Hospitals
Kimberley Alexander, Surgery
Mark H. Camel, Surgery
Jean M. Dwyer, Psychiatry
Laurence D. Gelstein, Surgery
Stanley W. Golon, Psychiatry
Joseph T. Moskal, Surgery

MISSOURI

St. Louis

Janice W. Semenkovich, Radiology
Genevieve M. Yue, Internal Medicine
The Jewish Hospital of St. Louis
Kurt M. Anderson, Surgery
Ellen F. Binder, Internal Medicine
James B. Breitmeyer, Internal Medicine
William M. Gee, Internal Medicine
Charles D. Goldman, Surgery
Robert A. Gross, Internal Medicine
Laura R. Hulbert, Obstetrics & Gynecology
Micki Klarman, Internal Medicine
Fredric H. Klopf, Internal Medicine
Cathy J. Lazarus, Internal Medicine
David Levine, Internal Medicine
Mark A. Mintun, Internal Medicine
Bancroft O'Quinn, Jr., Surgery
Valerie S. Schowb, Internal Medicine
David E. Thompson, Internal Medicine
St. John's Mercy Medical Center
Sara L. Anscheutz, Flexible
Ellis B. Nosroph, Flexible
Robert M. Satz, Internal Medicine
David M. Tarlow, Flexible
Jeffrey V. Winston, Flexible
St. Louis Children's Hospital
Michele R. Berman, Pediatrics
Aaron Hamvas, Pediatrics
Michele E. Kemp, Pediatrics
Laura M. Moody, Pediatrics
Janet D. Mosley, Pediatrics
Martin D. Rudloff, Pediatrics
Warren J. Steinmuller, Pediatrics
Douglas C. Watson, Pediatrics
Washington University Affiliated Hospitals
Kimberley Alexander, Surgery
Mark H. Camel, Surgery
Jean M. Dwyer, Psychiatry
Laurence D. Gelstein, Surgery
Stanley W. Golon, Psychiatry
Joseph T. Moskal, Surgery

NEBRASKA
Omaha
University of Nebraska Affiliated Hospitals
Susanna G. Von Essen, Internal Medicine

NEW HAMPSHIRE
Hanover
Dartmouth-Hitchcock Medical Center
Ralph F. Reeder, Jr., Surgery

NEW YORK
New York City
Mount Sinai Hospital
Dianne Budd, Internal Medicine
The New York Hospital
Eric B. Staros, Pathology
Presbyterian Hospital
Ira A. Tabas, Internal Medicine
Rochester
Strong Memorial Hospital
Thomas G. Tape, Internal Medicine

NORTH CAROLINA
Chapel Hill
North Carolina Memorial Hospital
Michael J. Boiger, Internal Medicine

DURHAM
Duke University Medical Center
Rita M. Willett, Internal Medicine

NORTH DAKOTA
Bismarck
University of North Dakota Affiliated Hospitals
Steven K. Glinberg, Family Practice

OHIO
Akron
Akor City Hospital
Christopher L. Huerta, Flexible

CINCINNATI
Cincinnati General Hospital
Alice A. Grucoski, Surgery

Cleveland
Case Western Reserve University Affiliated Hospitals

JANICE W. SEMENKOVICH, RADILOGY
GANEVIEVE M. YUE, INTERNAL MEDICINE
THE JEWISH HOSPITAL OF ST. LOUIS
KURT M. ANDERSON, SURGERY
ELLEN F. BINDER, INTERNAL MEDICINE
JAMES B. BREITMEYER, INTERNAL MEDICINE
WILLIAM M. GEE, INTERNAL MEDICINE
CHARLES D. GOLDMAN, SURGERY
ROBERT A. GROSS, INTERNAL MEDICINE
LAURA R. HULBERT, OBSTETRICS & GYNECOLOGY
MICKI KLARMAN, INTERNAL MEDICINE
FREDRIC H. KLOPF, INTERNAL MEDICINE
CATHY J. LAZARUS, INTERNAL MEDICINE
DAVID LEVINE, INTERNAL MEDICINE
MARK A. MINTUN, INTERNAL MEDICINE
BANCROFT O'QUINN, JR., SURGERY
VALERIE S. SCHOWB, INTERNAL MEDICINE
DAVID E. THOMPSON, INTERNAL MEDICINE
ST. JOHN'S MERCY MEDICAL CENTER
SARA L. ANSCHEUTZ, FLEXIBLE
ELLIS B. NOSROPH, FLEXIBLE
ROBERT M. SATZ, INTERNAL MEDICINE
DAVID M. TARLOW, FLEXIBLE
JEFFREY V. WINSTON, FLEXIBLE
ST. LOUIS CHILDREN'S HOSPITAL
MICHELE R. BERMAN, PEDIATRICS
AARON HAMVAS, PEDIATRICS
MICHAELE E. KEMP, PEDIATRICS
LAURA M. MOODY, PEDIATRICS
JANET D. MOSLEY, PEDIATRICS
MARTIN D. RUDLOFF, PEDIATRICS
WARREN J. STEINMULLER, PEDIATRICS
DOUGLAS C. WATSON, PEDIATRICS
WASHINGTON UNIVERSITY AFFILIATED HOSPITALS
KIMBERLEY ALEXANDER, SURGERY
MARK H. Camel, Surgery
JEAN M. DWYER, PSYCHIATRY
LAURENCE D. GELSTEIN, SURGERY
STANLEY W. GOLON, PSYCHIATRY
JOSEPH T. MOSKAL, SURGERY

Naomi L. Wahl, Obstetrics & Gynecology

OKLAHOMA
Oklahoma City
Oklahoma Memorial Hospital
Waden E. Emery, III, Flexible

PENNSYLVANIA
Philadelphia
Thomas Jefferson University
James G. Paraskevas, Family Practice
Raymond W. Phillips, Internal Medicine

Pittsburgh
University Health Center of Pittsburgh
John T. Wisneski, Jr., Internal Medicine

TENNESSEE
Nashville
Vanderbilt University Affiliated Hospitals
Michael E. Brun, Diagnostic Radiology
Barry F. Tillman, Internal Medicine

TEXAS
Dallas
University of Texas Southwestern Affiliated Hospitals
Keith L. Parker, Internal Medicine
San Antonio
University of San Antonio Teaching Hospital
Daniel P. Gluckstein, Internal Medicine
Samuel E. Steinmetz, Internal Medicine

UTAH
Salt Lake City
LDS Hospital
Steve J. Malek, Family Medicine

VIRGINIA
Charottesville
University of Virginia Medical Center
Todd Denholm is a picture of glee after learning that he will be heading for San Diego, California.

Margaret J. Cheadle, Family Practice

WASHINGTON
Seattle
University of Washington
Affiliated Hospitals
Jay W. Heinecke, Internal Medicine

WASHINGTON, D.C.
Georgetown University Hospital
Audrey D. Cobb, Pediatrics
Thomas K. Sweeney, Surgery
George Washington University Hospital
Arthur M. Brewer, Internal Medicine
Goldee H. Gross, Obstetrics & Gynecology

WISCONSIN
Madison
University Hospital and Clinics
Laura J. Brown, Pediatrics
Francis J. Danik, Internal Medicine
Gary A. Pesicka, Flexible

Milwaukee
Medical College of Wisconsin
Affiliated Hospitals
Mike Martinez, Internal Medicine
St. Joseph’s Hospital
Craig J. Secosan, Flexible

Not only the fourth-year students, but also their spouses and children, or their fiancees crowded into the auditorium for the announcements of where they would be living and working in 1981-1982.
The 133 members of the Class of '81 of the School of Medicine joined 1,551 graduating students of Washington University on the morning of May 22 for commencement ceremonies in the quadrangle of the Hilltop Campus. Then, there was lunch for the medical school graduates and their families at the Chase-Park Plaza Hotel, and the medical school's own commencement ceremony in the hotel's Khorassan Room. The graduating physicians and scientists invited the University's premiere poet, Howard Nemerov, to give the commencement address. Nemerov responded with his ample and acclaimed wit, and read one of his poems, "Runes." Before beginning his reading, he told the class and their families: "First, I would like to say to the graduates that you have chosen a vocation which commands, on the part of the lay person, greatest admiration for your courage, and I hope that your lives will reward you as amply in every sense as they have so far, evidently. When you become a doctor, so it seems to this outsider, you deliberately renounce the kind of immunity from the spectacle of suffering, age, illness and death that most of us enjoy for maybe 30 or 40 years, while we are able to look upon the aged as a separate species, one, moreover, which must have done something awful silly early on to get that way." Nemerov introduced his poem by saying that "... it was written with more erudition than I would write with now, but this poem was written by a kid of 38 whom I can scarcely remember." Nemerov, the kid, the poet and the Edward Mallinckrodt Distinguished University Professor, Department of English, has received the Pulitzer Prize and the National Book Award for his Collected Poems. His honors also include a Guggenheim, a Theodore Roethke Memorial Award and a fellowship from the Academy of American Poets. He selected "Runes," he explained, "not because it is serious and rather a strain on the attention, but it is a point where my vocation and the doctor's seem to cross — some thoughts about everything having to do with generation, death and regeneration. It goes around the cycle of the seasons, which is our model for practically everything we think we know. It runs from about August to about May. It takes you down the depths of winter, which is also the falling into illness and despair. But it is guaranteed to bring you out again in April. It is called 'Runes,' which is a species of early alphabet that became associated with magic, as it ought to be because the alphabet is still the most magical device we have. With its help, you can locate any one of four million books in the library in a few minutes. Unless you begin to doubt that the alphabet is in alphabetical order ... And if you hear 'ruins' in 'Runes,' it has to do with that, too."
In his preliminary remarks, Nemerov should be the one to do it. After I got over that, I even put on a tie, although you can’t see it. Then, there came the question, ‘what am I going to say?’ There is my celebrated lecture about how to put a bandaid on the very thumb you use to strip the tape away, but I suppose you already know most of that. Be assured that I am not going to recite the old platitudes — which are the only platitudes there are. In fact, anyone who is capable of making a new platitude is also capable of committing an original sin.”

Runes

“... insaniéhom sal-britér et moriebar vitalité,”

St. Augustine

IV

The seed sleeps in the furnaces of death.
A cock’s egg slept till hatching by a serpent
Wound in his wintry coil, a spring so tight
In his radical presence that every tense
Is now. Out of this head the terms of kind,
Distributed in syntax, come to judgment,
Are basilisks who write our sentences
Deep at the scripture’s pith, in rooted tongues,
How one shall marry while another dies,
Give us our ignorance, the family tree
Grows upside down and shakes its heavy fruit,
Whose buried stones philosophers have sought.
For each stone bears the living word, each word
Will be made flesh, and all flesh fall to seed:
Such stones from the tree; and from the stones, such blood.

V

The fat time of the year is also time
Of the Atonement; birds to the berry bushes.
Men to the harvest; a time to answer for
Both present plenty and emptiness to come.
When the slain legal deer is salted down.
When apples smell like goodness, cold in the cellar.
You hear the ram’s horn sounded in the high
Mount of the Lord, and you lift up your eyes
As though by this observance you might hide
The dry husk of an eaten heart which brings
Nothing to offer up, no sacrifice
Acceptable but the canceled-out desires
And satisfactions of another year’s
Abscess, whose zero in His winter’s mercy
Still hides the undecipherable seed.

VI

White water now in the snowflake’s prison.
A mad king in a skullcap thinks these thoughts
In regular hexagons, each one unlike
Each of the others. The atoms of memory.
Like those that Democritus knew, have hooks
At either end, but these? Insane tycoon,
These are the riches of order snowed without end
In this distracted globe, where is no state
To fingerprint the flakes or number these
Moments melting in flight, seeds mirroring
Substance without position or a speed
And course unsubstantiated. What may the spring be.
Deep in the atom, among galactic snows.
But the substance of things hoped for, argument
Of things unseen? White water, fall and fall.
As the graduating class lined up for the procession, they paused to applaud class president Michele R. Berman, M.D.
At left, Vice Chancellor Samuel B. Guze, M.D., and Dean M. Kenton King, M.D., led the procession, followed by class president Michele R. Berman, M.D., and commencement speaker Howard Nemerov.

Edward Mallinckrodt Distinguished University Professor, Department of English, Washington University.

The "moment" of graduation, after the processions, the speeches and lunches and poetry, is the instant that the diploma passes from the hands of Vice Chancellor Guze to the new physician. Top, Goldee Gross accepts her diploma. She had completed her coursework in mid-year and returned for the ceremonies.

Above, from left to right, John L. Schultz, Ph.D., Assistant Dean and Registrar; Vice Chancellor Samuel B. Guze, M.D., handing the diploma to Neal Christiansen, M.D., and Dean M. Kenton King, M.D., who called each graduate to receive the diploma.

XIII
There sailed out on the river, Conrad saw,
The dreams of men, the seeds of commonwealths,
The germs of Empire, To the ends of the earth
One many-veined bloodstream swayed the hulls
Of darkness gone, of darkness still to come,
And sent its tendrils steeping through the roots
Of wasted continents. That echoing pulse
Carried the ground swell of all sea-returns
Muttering under history, and its taste.
Saline and cold, was as a mirror of
The taste of human blood. The sailor leaned
To lick the mirror clean, the somber and
Immense mirror that Conrad saw, and saw
The other self, the sacred Cain of blood
Who would seed a commonwealth in the Land of Nod.

XIV
There is a threshold, that meniscus where
The strider walks on drowning waters, or
That tense, curved membrane of the camera's lens
Which darkness holds against the battering light
And the distracted drumming of the world's
Importunate plenty.—Now that threshold,
The water of the eye where the world walks
Delicately, is as a needle threaded
From the reel of a raveling stream, to stitch
Dissolving figures in a watered cloth.
A damask either-sided as the shroud
Of the lord of Ithaca, labored at in light
Destroyed in darkness, while the spidery oars
Carry his keel across deep mysteries
To harbor in unfathomable mercies.

XV
To watch water, to watch running water
Is to know a secret, seeing the twisted rope
Of runnels on the hillside, the small freshets
Leaping and limping down the tilted field
In April's light, the green, grave and opaque
Swirl in the millpond where the current slides
To be combed and carded silver at the fall:
It is a secret. Or it is not to know
The secret, but to have it in your keeping.
A locked box, Bluebeard's room, the deathless thing
Which it is death to open. Knowing the secret.
Keeping the secret—herringbones of light
Ebbing on beaches, the huge artillery
Of tides—it is not knowing, it is not keeping.
But being the secret hidden from yourself.
SENIOR AWARDS 1981

Nineteen of the 30 recipients of various awards gathered for a group portrait after the ceremonies. A complete list of the awardees follows:

Alpha Omega Alpha Book Prize ......................... Robert Paine III
American Medical Women's Association Inc., Scholarship Achievement Citations . . Margaret Jensen Cheadle
Mary Elizabeth Dial
Lesley Anne Furlong
Suzanne Y. Lee
Rita M. Willett

Alexander Berg Prize in Microbiology and Immunology ................................. Keith Langston Parker
Richard S. Brookings Medical School Award ........ Bruce Allen Bach
George F. Gill Prize in Pediatrics ........................ Douglas C. Watson
Alfred Goldman Book Prize in Diseases of the Chest ......................... Rita M. Willett
John E. Kirk Scholastic Award ............................ Lanyard Kirby Dial
Lange Medical Publications Book Awards .......................... Mark H. Camel
Leslie Walter Hall

Irwin Levy Prize in Neurology and Neurological Surgery .......................... Robert Alan Gross

Edward Massie Prize for Excellence in Cardiology .................. Lawrence Dominic Piro
Medical Fund Society Prize in Medicine ............ Lawrence Dominic Piro
Medical Fund Society Prize in Surgery ............ Tye J. Ouzounian
Merck Manual Awards ................................. Kurt Morgan Anderson
Jay Walter Heinecke
Micki Klearman

Missouri State Medical Association Award .................. Jeffrey Leon Duncan-Myers
C. V. Mosby Book Awards .............................. John F. Gray
Ira A. Tabas
Barry Forrest Tillman

St. Louis Internist's Club Award .................. Clay Farmer Semenkovich
St. Louis Pediatric Society Prize .................. Janet Debra Mosley
Sandoz Award in Psychiatry .................. Jean Mueller Dwyer
Sidney I. Schwab Prize in Psychiatry .................. Stanley W. Golon
Samuel D. Soule Award in Obstetrics and Gynecology .................. Edgar Leo Engel, Jr.
Upjohn Achievement Award .................. Clay Farmer Semenkovich
Samson F. Wennerman Prize in Surgery .................. Kimberly Alexander
Hugh M. Wilson Award in Radiology .................. Mark A. Mintun
James Henry Yalem Prize in Dermatology .................. Samuel Edwin Steinmetz
(At left) Class President Michele Berman, M.D., presented "Teacher Of The Year" awards to Robert Paine, M.D., (left) Professor of Clinical Medicine in the Department of Internal Medicine; Morton E. Smith, M.D., (Below Left) Professor of Ophthalmology and Assistant Dean of the School of Medicine; and Peter B. Corr, Ph.D., (Below Right) Assistant Professor of Pharmacology.

ALPHA OMEGA ALPHA

(At Right) Fifteen of the 23 seniors selected for membership in the honorary society, Alpha Omega Alpha, were on hand for the group photograph. The complete roster of initiates is:

Alpha Omega Alpha Initiates . . .
Kurt Morgan Anderson
Bruce Allen Bach
Margaret Jenson Cheadle
Edmund Hung-Kei Cheong
Lanyard Kirby Dial
Mary Elizabeth Dial
Jeffrey Leon Duncan-Myers
Carl E. Freier
Lesley Anne Furlong
Robert Alan Gross
Jay Walter Heinecke
Gary Jay Kurtzman
Suzanne Y. Lee
Robert Paine III
Keith Langston Parker
Lawrence Dominic Piro
Donald Ellis Rediker
Robert Mark Saltz
William Thomas Stewart
Ira A. Tabas
Thomas Gerald Tape
Barry Forrest Tilman
Rita M. Willett
The night before commencement festivities, Dean Robert Lee, Ph.D., Assistant Dean for Minority Student Affairs, and the Minority Medical Alliance held a reception to honor graduates and their families. Students in the schools of Medicine, Dentistry, Occupational Therapy, Physical Therapy and Health Administration and Planning attended the reception. The Alliance presented a plaque of appreciation to John C. Herweg, M.D., Associate Dean, for his continuing efforts in support of medical education for minority students. The plaque was engraved: "For over a decade of committing to action what others put only in words, we applaud you." Herweg has been active in recruiting minority medical students, has served as chairman of the admissions committee, and has been a champion of financial aid programs based on need. The graduates in the Alliance voted unanimously to award the plaque to Herweg.

Assistant Dean Lee with, from left to right, Drs. Brian Organ, Valerie Armstead, Audrey Cobb, Michael Martinez, Laura Moody, Anthony Newell, Bryan Apple and Gerald Gant. Not shown are Arthur Brewer and Bancroft O’Quinn.

“Our Mom, the doctor," was probably the thought of Dr. Jean Dwyer’s twin nine-year-old daughters. Dr. Dwyer’s mother, Lenna Mueller, recalled her reaction upon learning that her daughter wanted to attend medical school. "Jean has always been a very high achiever. I thought that if medical school is what she wanted, she could probably do it. She did." A single parent in her thirties when she began her medical education, Dr. Dwyer, who received the Sandoz Award in Psychiatry, has proved that her mother was correct in her assumption.
If anyone were keeping a record of family attendance at commencement, Frank Dank's family would probably hold first place. Twenty-two relatives drove or flew in for the event. Mrs. Dank, at the left in the front row, said that Frank (fourth from the right) is the first to go to medical school, "although I have a daughter-in-law who is a nurse in intensive care. Frank's wife (fifth from the left in the front row) admitted that she didn't get to see much of him during the first two years, but the second two were a bit better." She has a degree in social work and worked at a rural hospital in Washington, Mo., approximately 40 miles west of St. Louis. The Daniks agree that St. Louis was a nice place to live, although they ultimately hope to return to their native Michigan.
The James L. O'Leary Division of Experimental Neurology and Neurological Surgery was established in May, and Edward G. Jones, M.D., Ph.D., was named director. The announcement was made by Sidney Goldring, M.D., and William Landau, M.D., co-heads of the Department of Neurology and Neurosurgical Surgery. Jones is professor of Anatomy and Neurobiology, and was named the Ethel Ronzoni and George H. Bishop Scholar in Neuroscience, and professor of Experimental Neurology and Neurosurgical Surgery coincident with his appointment as director of the new division. As director, Jones will serve a scientific leadership role to foster basic neurological science approaches among graduate students, fellows and clinicians. The new division is named in honor of the late James L. O'Leary, M.D., Ph.D., who was professor and head of the neurology department from 1928 until his death in 1975.

Jones joined the faculty of the School of Medicine in 1972. He is known for his work on the anatomy of sensory-motor interactions of the cerebral cortex. Recently, his work has focused on the way the cortices of animals in utero adapt to injury. Jones received his M.D. at the University of Otago in Dunedin, New Zealand, and his Ph.D. at the University of Oxford, England. He is a member of the American Association of Anatomists, the American Association for the Advancement of Science, and the Society for Neuroscience. He chairs the Education Committee of the Society of Neuroscience, and is Associate Editor of the Journal for Neuroscience. He has received the Syngenta Memorial Prize of the Anatomical Society of Great Britain and Ireland, and the Rolleston Memorial Prize of Oxford University, among his numerous awards.

Gerald D. Fischbach, M.D., has been named head of the Department of Anatomy and Neurobiology and Edison Professor of Neurobiology. He comes to Washington University from Harvard Medical School where he has been a professor of pharmacology. Fischbach received his M.D. degree from Cornell University Medical School in 1965, and served an internship at the University of Washington Hospital in Seattle.

From 1966 through 1969, Fishbach was senior surgeon, Public Health Service, Laboratory of Neurophysiology, National Institute of Neurological Diseases and Stroke of the National Institutes of Health. From 1969 through 1973, he was a staff fellow at the Behavioral Biology Branch of the National Institute of Child Health. He joined Harvard in 1973.

Fischbach is a member of the Scientific Advisory Board of the National Paraplegia Foundation, the Neurology B Study Section of the NIH, and is clerk of the Corporation of Marine Biology in Woods Hole, Massachusetts. He is a member of the American Physiological Society, the Society for Neuroscience, and the American Society for Pharmacology and Experimental Therapeutics. He is a pioneer in the development of methods for the study of muscle and nerve cells in tissue culture and has brought to these studies...
his expertise in electrophysiology and cell biology. The major focus of his work has been the study of the formation of the synapse between nerve and muscle and the development by muscle cells of sensitivity to neurotransmitters. His most recent work has resulted in the identification of a substance released from nervous tissue which modulates the differentiation of the muscle cells.

**Phillip R. Dodge, M.D.,**
Professor and Head of the Edward Mallinckrodt Department of Pediatrics and Professor in the departments of Neurology and Neurological Surgery, recently chaired a Consensus Development Panel at the National Institutes of Health in Bethesda, Md. Also participating on the panel was James P. Keating, M.D., Professor of Pediatrics. The panel examined diagnosis and treatment of Reye's Syndrome, an acute and often fatal childhood illness. The panel is part of the Consensus Development program of the Department of Health and Human Services, and is intended to bring together biomedical investigators, practicing physicians, patients and their families to evaluate and review scientific soundness of health-related technologies. Among the goals of the program are to disseminate knowledge of biotechnical advances to physicians and consumers, and to facilitate appropriate use of new technologies and methods.

**Mallinckrodt Institute of Radiology** will celebrate its 50th anniversary with a three-day scientific and social program on October 1, 2 and 3, 1981. Contact the public relations office of MIR for additional information.

**David H. Alpers, M.D.,**
Professor of Medicine and Chief of the Division of Gastroenterology, is one of six Washington University faculty members awarded fellowships by the John Simon Guggenheim Memorial Foundation. The six fellowships, the largest number presented to Washington University faculty in recent years, comprise all of the Guggenheim fellowships granted this year in Missouri.

Alpers said that he applied for the Guggenheim award so he could take a research sabbatical leave. He will take his sabbatical "across the street" from his Wohl Clinic office, in the McDonnell Medical Sciences Building of the medical school, collaborating with Arnold Strauss, M.D., Associate Professor of Pediatrics, in his laboratory in the Department of Biological Chemistry. They will study the genetic expression and processing of proteins which are unique to the small intestine. These proteins are made by the lining of cells which face the inside of the small intestine. "We have recently become aware that intestinal cells do more than just absorb food and break it down," Alpers said. "They also secrete unique proteins into the blood stream in larger amounts than for some proteins made for the intestine itself."

Part of this study of the mechanisms involved in the regulation and synthesis of proteins focuses on producing apolipoproteins A and A, in a cell-free system and is underway in Dr. Strauss' laboratory. A and A, are normally made largely in the intestine. Signal peptides are usually formed on one end of secreted proteins and direct their movement into secretory pathways. Specific signal peptides are removed from the molecule before its mature form is recovered outside the cell. In the cell-free system, the protein with the signal peptide on it can be made in a test tube, and the enzyme signal peptidase introduced to remove the signal. This system enables researchers to study the molecular processes involved in the production and discharge of the secreted protein.

Alpers will work with Strauss to learn his methods and to study variations in the synthesis and regulation of secretion of alkaline phosphatase and calcium-binding protein in the ducdenum, jejunum and ileum of the rat. Ultimately, they hope to assay the messenger RNA content of these proteins by making clones of each gene and defining the amount of messenger RNA required to produce the appropriate protein. In the long run in humans, detecting abnormalities in intestinal messenger RNA for apolipoprotein could be helpful in understanding some of the diseases associated with abnormal blood lipids and heart disease, giving added dimension to the old adage that the way to a man's heart is through his gastrointestinal tract.

Alpers received his M.D. degree from Harvard Medical School in 1960, and served his internship and residency at Massachusetts General Hospital. He was on the faculty of Harvard until 1969, when he came to Washington University, a move he made, he said, "because life on the East Coast was too hectic, and there were too many doctors. I wanted to be useful. Back there, sometimes I wondered if it would matter if I even showed up for work. I wanted to feel that what I did would make a difference." At the urging of Carl V. Moore, M.D., Professor of Medicine, Alpers came to St. Louis "because this seemed to be a place where I could work unimpeded and yet supported by people dedicated to investigative work. It has turned out better than I thought it could be."

**Thomas B. Ferguson, M.D.,** clinical professor of surgery, was named president-elect of the American Board of Medical Specialties (ABMS) at the organization's annual meeting in March. He will assume the office of president in March 1982. The ABMS is composed of representatives of 23 primary and conjoint specialty boards, and works to assist members in their efforts to promote equality and efficiency in the process of evaluating and certifying physician specialists. Ferguson also was the Richardson Lecturer and Visiting Professor at Harvard Medical School, and guest faculty member for the postgraduate course in general thoracic surgery at Massachusetts General Hospital in March.

**Paula J. Clayton,** professor of psychiatry at the WU School of Medicine, gave the presidential address at the 71st annual meeting of the American Psychopathological Association last March in New York City. The conference was on "Treatment of Depression: Old Controversies and New Approaches." Clayton and **C. Robert Cloninger,** associate professor of psychiatry at the School of Medicine, also chaired meeting sessions.
3M Life Sciences Award To Dr. Paul E. Lacy
The Federation of American Societies for Experimental Biology (FASEB) presented its prestigious 3M Life Sciences Award to Paul E. Lacy, M.D., Ph.D., Mallinckrodt Professor and Chairman of the Department of Pathology at the School of Medicine.

Lacy will receive $5,000 and the School of Medicine, $10,000 to support his research and travel. Additional funds will be provided to send three young scientists of Lacy's choosing to the FASEB Annual Meeting or another appropriate meeting.

Lacy is the sixth recipient of the 3M award which is administered by FASEB and funded by 3M to honor researchers whose work has made a significant contribution to human health and welfare. Lacy was recognized for his multidisciplinary research efforts in diabetes which have spanned 25 years and resulted in a better understanding of the disease's pathophysiology and improved therapies.

Initially, Lacy's work focused on the structure and function of the islets of Langerhans. Lacy established the first ultrastructural criteria for identifying islet cells; made the first immunological demonstration of insulin in beta cells, the predominant cells of the islets of Langerhans; and was the first to use quantitative histochemical techniques to study enzyme activities in the beta cells. In 1967, Lacy developed a technique for isolating pancreatic islets, a technique which is used throughout the world.

In the early 1970s, Lacy's interest shifted to the possibility of treating diabetes by transplanting healthy islets into diabetic patients. To date, he has successfully transplanted healthy islet cells from non-diabetic to diabetic animals and, by doing so, has reversed the disorder in the diabetic animal. The procedure does not require immunosuppression and transcends the usual problem associated with transplantation — rejection.

Major Career Development Award Given To Dr. Ludmerer
In a new program established by the Henry J. Kaiser Family Foundation of Menlo Park, California, to develop leaders in academic general internal medicine, the Foundation has selected Kenneth M. Ludmerer, M.D., as one of the first six recipients of five-year, $50,000-per-year grants. Ludmerer is Assistant Professor of Medicine in the Department of Medicine at Washington University School of Medicine, and Assistant Professor of History on the Faculty of Arts and Sciences. Ludmerer was selected from nominees of major medical schools throughout the country which met the Foundation's criteria for commitment to scholarship with particular focus on general internal medicine. The program is the Foundation's response to a growing concern among many medical educators that there is too great an emphasis on training for the subspecialties of medicine. The Foundation has been supporting postgraduate fellowships in general internal medicine and hopes, through the new program, to develop the careers of young faculty members who will eventually be able to enhance the quality of education and of patient care. Awards to individual faculty members were based on demonstration of skills in patient care and in teaching general internal medicine, research scholarship recognized by the faculty as meriting academic advancement, and leadership qualities.

Ludmerer received his M.D. degree at Johns Hopkins University in 1973 and served his internship and residencies from 1973 through 1976 at Barnes and Cochran Veterans Administration hospitals, which are affiliated with Washington University School of Medicine. He was chief resident in internal medicine at Barnes Hospital in 1978-1979. The School's Department of Medicine established a unique two-year fellowship for Ludmerer, enabling him to serve both as Instructor of Medicine at the School and Research Associate in the Department of The History of Science at Harvard University.

Ludmerer was appointed to his current positions in 1979. He has published extensively in journals of history of medicine and sciences; authored a book, Genetics and American Society: A Historical Appraisal; and is actively involved in patient care and the teaching of third- and fourth-year medical students, interns and residents. Ludmerer's positions at Washington University are believed to be unique in American medicine — a practicing physician and professor of medicine conducting research in medical history rather than in basic biomedical science.

Robert A. Ratcheson, M.D., Associate Professor of Neurological Surgery has accepted the position of Director of the Division of Neurological Surgery and Harvey Huntington Brown, Jr., Professor of Neurological Surgery at the School of Medicine of Case Western Reserve University in Cleveland, Ohio. Ratcheson received his M.D. degree from Northwestern University School of Medicine in Chicago in 1965, and took his surgical internship and resident training at Johns Hopkins Hospital in Baltimore, Maryland. He was assistant resident and chief resident in neurological surgery at Barnes Hospital, and in 1973, following nearly a year as visiting scientist at the Brain Research Laboratory of the University Hospital in Lund, Sweden, Ratcheson became Assistant Professor of Neurological Surgery at Washington University School of Medicine. He became Associate Professor in 1977.

Virginia V. Weldon, M.D., Professor of Pediatrics at Washington University School of Medicine, is now also Associate Vice Chancellor for Medical Affairs. She is also Vice President of the Washington University Medical Center, a position to which she was appointed in 1980.

Weldon earned her M.D. degree at the University of Buffalo.
School of Medicine in 1962 and was an intern and then assistant resident in Pediatrics at the Harriet Lane Home of the Johns Hopkins Hospital in Baltimore. After a fellowship and instructorship at Johns Hopkins Medical School, Weldon joined Washington University School of Medicine in 1968. She became Assistant Professor of Pediatrics in 1969, Associate Professor in 1973, and Professor in 1979. She has served as Co-Director of the Division of Pediatric Endocrinology and Assistant Director of the Clinical Research Center.

Weldon has received numerous medical and scientific awards. Her current research includes studies of glandular abnormalities, growth problems and synthetic human growth hormone, and problems associated with juvenile diabetes. A member of the Association of American Medical Colleges for the past five years, Weldon currently serves on the Executive Council. She has been an active consultant to federal and state government agencies. She is a member of the boards of the United Way of St. Louis, The Visiting Nurse Association, and St. Louis Union Trust Company.

David M. Kipnis, M.D.,
Busch Professor and Chairman of the Department of Medicine, was elected to the National Academy of Sciences, has become the first person to receive the three most prestigious honors of the American Diabetes Association, and was awarded an honorary Doctor of Sciences degree from his alma mater, the University of Maryland School of Medicine. Kipnis' most recent award from the American Diabetes Association was the Charles H. Best Award, presented "for outstanding service in the cause of diabetics.” Kipnis served as Chairman of the National Diabetes Advisory Board from its establishment by Congress in 1976 until 1980. The Board was formed to monitor and report on progress made under the Long Range Plan in Diabetes which was instituted and funded by the federal government in 1976. The current level of funding for the Long Range Plan is $135-$140 million yearly. Charles H. Best, for whom the award is named, was one of two Nobel laureates who isolated the hormone insulin. The other was Sir Frederick G. Banting. Kipnis has received the American Diabetes Association's Banting Medal, its highest scientific honor, as well as its Lilly Award for original research in diabetes.

These scientific awards, Kipnis' election to the National Academy of Sciences, plus his honorary Doctor of Sciences degree recognize the three major areas of Kipnis' research: nutritional and endocrine control of the metabolism of carbohydrates, amino acids and fats by skeletal muscle; the molecular and physiological mechanisms regulating the synthesis and secretion of insulin and other hormones involved in maintaining normal metabolism; and the development of new technologies - such as immunochemical assays, mass spectroscopy, and nuclear magnetic resonance - applicable to the study of endocrine and metabolic disorders in humans.

The Heart Research Foundation selected Burton E. Sobel, M.D., Professor of Medicine and Chief of the Division of Cardiology, and Adjunct Professor of Chemistry, to receive the Foundation's Second International Recognition Award. Sobel was selected for the award from a field of six nominees, and cited for his research in the biochemistry of heart disease. Since the publication of his first paper in the Proceedings of the National Academy of Sciences in 1965, Sobel has published 241 research reports on aspects of cardiovascular disease.

Sobel's early work sought a correlation between the amount of heart muscle damage and the prognosis for the patient. Methods based on serial measurements of the blood levels of enzymes, such as MB-CK, which is released by damaged hearts, were developed.

Currently, Sobel is part of an interdepartmental, multidiscipline research program to develop external detection of the biochemistry of the heart and study its relationship to a variety of cardiac diseases. Sobel's colleagues are: Steven R. Bergman, Ph.D., medical physiologist and Assistant Professor of Medicine; Edward M. Geltman, M.D., Assistant Professor of Medicine; Robert Roberts, M.D., Associate Professor of Medicine; Michel Ter-Pogossian, Ph.D., Professor of Radiation Sciences; and Michael Welch, Ph.D., Professor of Radiation Chemistry. Their work is in two general areas, cardiomyopathy and intervention to reduce heart tissue damage.

Using the positron-emission transaxial tomography (PETT) scanner developed by Ter-Pogossian and his colleagues, the researchers are studying calcium antagonists administered to prevent injury to heart muscle which is temporarily jeopardized, anti-platelet drugs which could reduce the amount of coronary occlusion, and spasmodic drugs which seem to reduce coronary vasospasm.

In the general area of cardiomyopathy, they are seeking to quantify possibly altered metabolism of sugars, fats and amino acids in normal and abnormal hearts. The goal is to advance beyond description to identify the biochemical factors underlying impaired pumping of the heart. Again, the PETT scanner is being applied to various aspects of cardiomyopathy, in addition to efforts to assess the amount of damage created by reduced flow of blood to specific regions of the heart in ischemic heart disease.
Jessie L. Ternberg, M.D., Ph.D., (above) professor and chief of Pediatric Surgery, received an honorary Doctor of Sciences degree from the University of Missouri–St. Louis on May 17. She is shown receiving the degree from Dr. Melvin George, University of Missouri Vice President for Academic Affairs. Ternberg, who received her M.D. degree from Washington University School of Medicine in 1953, has been affiliated with the medical school since 1957, following residency at Boston City Hospital and internship at Barnes Hospital. She is the first woman surgeon at the medical school and the first woman division head in the medical school since 1957.

Erwin B. Montgomery, Jr., M.D., assistant professor in the Department of Neurology and Neurosurgical Surgery, will study how different areas of the brain control movement, and what happens to the brain when certain disorders affect movement. Montgomery received a $20,000 grant from the American Parkinson’s Disease Association for his research into Parkinson’s Disease, which affects movement. Parkinson’s Disease is a chronic nervous disorder of unknown origin which afflicts people between the ages of 50 and 65. It is characterized by rhythmic tremors in the limbs, muscular weakness and rigidity, and a peculiar gait. Sometimes it is called shaking palsy. Recovery is rare. Montgomery will study the relationships between movement and the effects of lesions on the substantia nigra, a part of the basal ganglia which is primarily affected in Parkinson’s disease.

Montgomery will study the brain cell activity of monkeys performing a task which they will have been taught, and compare the compiled data with data about brain cell activities after the substantia nigra of the monkeys has been destroyed, rendering them Parkinsonian.

Montgomery received his M.D. degree from the State University of New York at Buffalo in 1976, and served his internship and residency at Barnes Hospital. He was a Fellow in Motor Neurophysiology at Washington University School of Medicine in 1980-1981, and became assistant professor in the Department of Neurology and Neurosurgical Surgery in July.

The American Cancer Society has awarded a $40,000 Institutional Research Grant to Washington University to fund promising new projects in cancer research by junior investigators at the University. This is the 28th time the grant has been awarded to the University, which is considered a major center for cancer research by the Society.

Researchers university-wide can apply for funding up to $5000 to be used over one year to finance cancer-related projects. Recipients are selected by a committee chosen by Chancellor William H. Danforth. Currently the committee is chaired by Elmer B. Brown, Jr., M.D., of the University’s School of Medicine.

Although researchers throughout the University are eligible to apply for this funding, most of the recipients have come from the School of Medicine. Subsequently, many of them have received additional funding for their projects from the American Cancer Society and other agencies after exhausting the money supplied by the original grant.

Richard H. Fallon, M.D., assistant professor of clinical surgery, will begin serving his second term as the part-time faculty representative to the Executive Faculty, the School’s governing body.

Fallon was graduated from Harvard University School of Medicine in 1956. He served his internship at Barnes Hospital and his residency at Boston City and Barnes Hospitals. He also served as research fellow and instructor at Washington University and chief resident at Barnes Hospital. After military service, he began private practice in 1964 and has been assistant professor of clinical surgery since 1969.
1981 Reunions

On May 6, 7, & 8, Class Reunions were held for the Classes of 1931, 1936, 1941, 1946, 1951, 1956, 1961, 1966, and 1971. As can be seen by the following photos, a good time was had by all.

Forty-five members of the WUMS Class of 1956 and 42 spouses gathered for their 25th reunion. The crowd filled Augie and Caroline Geise’s home and patio for a delightful cocktail party and dinner. Eight couples came all the way from the west coast, and three from Florida. Al Hathcock, bones broken here and there from a fall down a mountain, limped in with Kodachrome slides taken of most class members during medical school days, and Hav Parish piloted his plane into town with prints of the old days. Lyss brought wine, just in case Alumni President Geise’s should fall short, which gesture was borne by Geise with neurosurgical imperturbability.

This class, which had an unusual degree of closeness throughout medical school, fostered by several skits and musical shows back then, turned out for one of WUMS’s biggest reunions ever. Name tags were essential to prevent misidentification secondary to aging, widening girth and the growth of facial fur. Character, though, seemed changed not at all, with Fox still leading the charge into the 18th Century and exchanging barbs as of yore with Wald, ever the free spirit, mustachioed shrink of the Golden Gate, with lovely new French bride.

We’ll gather in force again in 2006.

Dick Hudgens (’56)
Reunion Chairman
Louise Powers Ainsworth ('31), receiving her Senior Membership Certificate from Fred Peterson ('57), In-coming President, (Above)

William Crawford ('31), spokesperson for the 50th year reunion class. (At Right)

Michele Berman ('81), president and spokesperson for the newest alumni class.
Welcoming Cocktail Party

Grace & Nelson Saphir (36), Peggy & William Sellers (36)

Eleanor Connolly, Ken Koerner (41), Jane Koerner
In Memoriam

January 1, 1979
Henry C. Allen, ’33 .......... May 16, 1980
May, 1979
July 1, 1980
George Arrington, FHS .......... May 20, 1981
date unknown
December 5, 1980
William K. Beare, ’33 .......... December 26, 1980
February 7, 1981
Roland S. Bassman, ’37 .......... December 11, 1980
January 16, 1981
Walter Baumgarten, Jr., ’39 .......... November 13, 1980
December 6, 1980
Donald M. Bramwell, ’41 .......... May 16, 1980
June 1980
Frank A. Brown, Jr., ’42 .......... October 9, 1980
January 5, 1981
George M. Chambers, ’48 .......... December 30, 1980
May 16, 1980
Walcott Denison, ’14 .......... November 3, 1980
July 23, 1980
Saul Dworkin, ’36 .......... March 4, 1981
May 20, 1981
Dennis B. Elrod, ’31 .......... April 24, 1981
February 16, 1981
Julius Elson, ’28 .......... July 23, 1980
December 26, 1980
Gilbert Gordon, ’66 .......... April 7, 1981
December 11, 1980
November 13, 1980
November 1979
Marion S. McGrath, ’37 .......... April 24, 1981
April 18, 1981
November, 1979
George T. Noel, FHS .......... Kenneth Shulman, ’54 .......... date unknown
Paul F. Max, ’32 .......... February 26, 1981
November 8, 1980
Norman C. Miller, . ’33 .......... March 12, 1981
December 22, 1980
April 1, 1981
March 12, 1981
April 18, 1981
Kenneth Shulman, ’54 .......... March 22, 1981
Washington University
Medical School
Class of 1931 — 50th Reunion —
May 7, 1981
Seated: Drs. Brua, Ainsworth, Wray, Sundwall.
Standing: Drs. Tompkins, Barber, Crawford, Whayne, Canady, Stauffer, Magnes.
Washington University
Medical School
Class of 1936 — 45th Reunion —
May 7, 1981

Washington University
Medical School
Class of 1941 — 40th Reunion —
May 7, 1981
Washington University
Medical School
Class of 1946 — 35th Reunion —
May 7, 1981
1st row: Drs. Bailey, Seabaugh, Wald,
Wiedershine, Barrow.
2nd row: Drs. King, Rauber, Ishii,
Walker, Funsch, Shapeleigh.
3rd row: Drs. Adams, Perry, Williams,
Thiel, Weiss, Lanier, Ernst, Sisk,
Owen, Hawkins.

Washington University
Medical School
Class of 1951 — 30th Reunion —
May 7, 1981
1st row: Drs. Veit, Burnside, Roehrs,
Levin, German, Vaughn, Evenson.
2nd row: Drs. Morgan, Hartmann,
Wiles, Jannings, Schaper, Gissen,
Swarm, Holmes, Simmons, Holtz,
Mullen, Kappesser, Mendenhall,
Paldin.
3rd row: Drs. Feierabend, Roberts,
Kirkpatrick, Dunlevy, Rader, Faw,
Hendrix, Krietmeyer, Comens.
Washington University
Medical School
Class of 1956 — 25th Reunion —
May 7, 1981

Washington University
Medical School
Class of 1961 — 20th Reunion —
May 7, 1981
Washington University
Medical School
Class of 1966 — 15th Reunion —
May 7, 1981
Drs. Rumelt, Mayes, Lee-Brigham,
Trueworthy, Boyd, Waltz, Liss, Grady,
George, Leary.

Washington University
Medical School
Class of 1971 — 10th Reunion —
May 7, 1981
1st row: Drs. Rouse, J. Aronberg,
Potkin, Swartout, Blake.
2nd row: Drs. D. Aronberg, Seale
(’72), Oda, Cooper, Galatz-Ley,
Blank.
Standing: Drs. A. Cohen, Stenson,
Taylor, Shapiro, Blath, D. Diedrichsen,
J. Diedrichsen, Uhlemann, Shaw,
Rose, Schwarz (’72), Laibovitz,
C. Cohen, Rigg.
Shell game?

Not pearls on a half-shell or a prudent distribution of eggs among baskets, the photo above is a fungus! Richard C. Walters, M.D. '73, took the photo of dime-sized “Bird’s Nest Fungi” in a park west of St. Louis. They are unusual, and “due to their size, they are only rarely seen,” he wrote. He also said that he has been actively interested in close-up nature photography for the past five years, and exhibits his work through The Photographic Society of America, in international exhibitions which the Society sponsors. He has judged the nature division of several of the Society’s exhibitions in the Midwest, an activity which led to his meeting F. Glenn Irwin, M.D. ’30, whose photo of a woodpecker appeared in OUTLOOK’s Autumn 1980 issue. Walters occasionally publishes photographs in nature magazines. He is in solo practice of dermatology in Webster Groves.

OUTLOOK encourages students and alumni of the school to submit photos on any subject for use on this page. Color slides are acceptable, although the printed picture will be black and white. Please write or call the editor if you need more information.