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THE BOARD OF TRUSTEES

CHARLES ALLEN THOMAS  Chairman
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D A V I D  R A N D O L P H  C A L H O U N ,  J R .
G E O R G E  H O W A R D  C A P P S
C L A R K  M C A D A M S  C L I F F O R D
F R E D E R I C K  L E W I S  D E M I N G
J A M E S  M A R S H  D O U G L A S
P A U L  A B R A H A M  F R E U N D
J O H N  K Y L E  G U S TA F S O N
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R U S S E L L  C H A R L E S  W H E E L E R

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George Edward Pake, Ph.D., Sc.D.  Provost
Carl Anton Dauten, Ph.D.  Vice Chancellor for Administration
Charles Melvin Blair, Ph.D.  Vice Chancellor for Finance
Robert Louis Payton, M.A.  Vice Chancellor for Planning
William Henry Danforth, A.B., M.D.  Vice Chancellor for Medical Affairs
OFFICERS AND COMMITTEES OF THE
FACULTY OF THE SCHOOL OF MEDICINE

EXECUTIVE FACULTY

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<tr>
<td>Thomas Hopkinson Eliot</td>
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<td>George Edward Pake</td>
<td>Provost</td>
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<td>M. Kenton King</td>
<td>Dean</td>
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<tr>
<td>William H. Danforth</td>
<td>Vice Chancellor for Medical Affairs</td>
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<td>Herman N. Eisen</td>
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<td>James L. O'Leary</td>
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<td>Eli Robins</td>
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<td>David Goldring</td>
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<td>Sol Sherry</td>
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<td>Joseph Ogura</td>
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<td>William Sleator, Jr.</td>
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<td>Samuel B. Guze</td>
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<td>George R. Drysdale</td>
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<td>Harvey R. Butcher</td>
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The General Faculty is composed of members of the staff holding appointments as professor, associate professor, or assistant professor.

The Faculty Council consists of those professors and associate professors not on the Executive Faculty but holding tenure appointments. Officers of the Faculty Council are:

<table>
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<tr>
<td>David M. Kipnis</td>
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<tr>
<td>Michel Ter-Pogossian</td>
<td>Secretary</td>
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<tr>
<td>Walter C. Bauer</td>
<td>Vice Chairman</td>
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Other members of the Executive Committee of the Faculty Council are:

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<thead>
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<tr>
<td>Carl Frieden</td>
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<td>F. Edmund Hunter</td>
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<td>Malcolm R. Peterson</td>
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STANDING COMMITTEES²

MEDICAL EDUCATION

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<td>Edward W. Dempsey</td>
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<td>Herman Eisen</td>
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<td>Samuel B. Guze</td>
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<td>Ernst Helmreich</td>
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<td>John C. Herweg</td>
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<td>Sam L. Clark, Jr.</td>
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<td>Joe W. Grisham</td>
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<td>J. Russell Little, Jr.</td>
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<td>Sarah A. Luse</td>
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<td>William B. Parker</td>
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<td>Warren G. Stamp</td>
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¹ Representing the Faculty Council during 1966-67.
² The Dean is ex officio a member of all standing committees.
FELLOWSHIPS AND AWARDS
Sam L. Clark, Jr., Chairman
Bruce Brekenridge
Harvey R. Butcher
William H. Daughaday

David E. Kennell
William M. Landau
P. Roy Vagelos

PROMOTIONS
Willard M. Allen, Chairman
P. Roy Vagelos

Robert E. Shank
Oliver H. Lowry

LECTURESHIPS
Stanford Wessler, Chairman
Estelle Brodman, Secretary
Ernst Helmreich

William T. Newton
David Schlessinger
Mildred Trotter

BEAUMONT—MAY INSTITUTE OF NEUROLOGY
James L. O'Leary, Chairman
Irwin Levy
Oliver H. Lowry

Sarah A. Luse
Henry G. Schwartz

THE MEDICAL CENTER
Barnes Hospital, St Louis Children's Hospital, St. Louis Maternity Hospital, McMillan Hospital, David P. Wohl, Jr., Memorial Hospital, Renard Hospital, and Barnard Free Skin and Cancer Hospital.

JOINT MEDICAL ADVISORY COMMITTEE
Paul E. Lacy, Chairman
Willard M. Allen
Bernard Becker
Louis T. Byars
William H. Danforth
Robert B. Dodd
Robert E. Frank
David Goldring

Marshall B. Greenman
Lilly Hoekstra
Michael M. Karl
M. Kenton King
Virgil Loeb, Jr.
Carl V. Moore

Joseph Ogura
James L. O'Leary
William Perry
Eli Robins
Henry G. Schwartz
Robert E. Shank
Juan Taveras
MEDICAL ADVISORY COMMITTEE TO THE CLINICS

M. Kenton King, Chairman
Harvey R. Butcher, Jr.
Robert E. Frank
Samuel B. Guze
B. V. Jager

William M. Landau
Henry G. Schwartz
Robert E. Shank
Juan M. Taveras
Ralph B. Woolf

ADMINISTRATIVE OFFICERS
SCHOOL OF MEDICINE

M. Kenton King
B.A., University of Oklahoma, 1947; M.D., Vanderbilt University, 1951.

Dean

John C. Herweg
B.S., Drury College, 1943; M.D., Washington University, 1945.

Associate Dean

Samuel B. Guze
M.D., Washington University, 1945.

Assistant to the Dean

William Bahlmann Parker
A.B., University of Missouri, 1921.

Registrar and Secretary to
the Executive Faculty

John L. Midkiff, Jr.
B.S.B.A., Washington University, 1948; C.P.A., Missouri.

Business Manager

OTHER OFFICERS
OF THE SCHOOL OF MEDICINE

Assistant Vice Chancellor
Benjamin Roth, A.B., LL.B.
for Medical Affairs

David H. Brown, Ph.D.

Co-ordinator of Pre-Clinical
Science Planning

James C. Peden, Jr., M.D.

Physician in Charge of Student Health
Service at the Medical Center

Helen Kaiser

Administrative Assistant to the Dean
Louise Jacoby, A.B.

Administrative Secretary to the Dean
Dorothy I. Miller

Assistant Registrar
Patricia Brown, B.A.

Director of News Bureau
Estelle Brodman, Ph.D.

Librarian
Edward Mallinebrodt Institute of Radiology

St. Louis Children's Hospital
HISTORY
OF THE MEDICAL CENTER

Washington University School of Medicine was formed in 1899 by the union of the first two medical schools established west of the Mississippi River, the Missouri Medical College and the St. Louis Medical College, popularly known as McDowell’s College and Pope’s College because of the close identification of the two schools with their respective Deans, McDowell of the Missouri Medical College and Pope of the St. Louis Medical College.

These pioneer colleges set high standards for medical education during the heyday of the medical diploma mills, when there were four times as many medical schools operating in the city of St. Louis as there now are in the entire state of Missouri. From their beginnings each school sought university affiliation. The St. Louis Medical College was established as the Medical Department of St. Louis University, became independent in 1855, and affiliated with Washington University in 1891, although it retained its name until the union with the Missouri Medical College in 1899. The Missouri Medical College was established as the Medical Department of Kemper College, was later the medical department of the University of Missouri; it finally became independent in 1857. In 1899, the Missouri Medical College affiliated with the St. Louis Medical College, and thus formed the Medical Department of Washington University.

Both colleges were particularly fortunate in attracting men of energy, integrity, and skill. Members of their faculties were well known at home and abroad. Charles A. Pope at thirty-six became the youngest president in the first hundred years of the American Medical Association, and his successor as professor of surgery at the St. Louis Medical College, E. H. Gregory, was elected president in 1886. John T. Hodgen, a graduate of the Missouri Medical College and later dean and professor of surgical anatomy at the St. Louis Medical College, was president of the American Medical Association in 1880. Hodgen originated the splint for hip fractures. The Hodgen splint is still used today.

Both colleges continued to raise their requirements, so that at the time they became associated in 1899, each required its students to complete satisfactorily a four-year graded course for the M.D. degree.

In 1909 Abraham Flexner began a survey of 155 medical schools in the United States and Canada for the Carnegie Foundation for the Advancement of Teaching. A similar survey by the American Medical Association and Flexner’s survey, the famous Bulletin Number Four on the state of medical education in the United States and Canada, created a national sensation. Some schools collapsed, others pooled their resources, while still others reorganized.

The Medical School of Washington University did not escape criticism. In the report Flexner made to Dr. Pritchett, president of the Carnegie Foundation for the Advancement of Teaching and former professor of astronomy at Washington University, he said that one of two courses must be adopted: “the department must be either abolished or reorganized.”

Dr. Pritchett mailed the report to Robert S. Brookings, a St. Louis merchant who
was president of the Board of Directors of Washington University. Mr. Brookings was shocked and immediately went to New York to see Flexner, demanding proof that the conditions were as bad as described. Abraham Flexner returned to St. Louis with Mr. Brookings, and the two men went through the School. In less than two hours Mr. Brookings was convinced that drastic action was necessary if the School were to be of highest caliber.

The meeting in 1909 of Robert S. Brookings and Abraham Flexner was of unsurpassed significance in the history of the Washington University School of Medicine, for it led to the complete reorganization of the School and the establishment of the present Medical Center. Abraham Flexner inspired the dream of a model medical school. Robert S. Brookings accepted the challenge, and with the energy and vision which characterized all his enterprises, made the dream a reality.

No time was lost in making changes. The Bulletin of the Medical School for July, 1910, makes the following general statement: “The Corporation of the University, becoming convinced that in no other direction could greater service be rendered than through a great, modern medical school, determined to reorganize the School and to place it in the front rank of American medical institutions. It has called to the heads of a number of the leading departments the ablest men it could secure, who shall give their time to teaching and research, providing each with a staff of permanent assistants, who likewise shall give their time to instruction and research, and has associated with this staff groups of the strongest men in the medical profession in St. Louis.”

When Robert A. Barnes died in 1892, he left a will which directed that the trustees of his estate should use $800,000 for the erection and equipment of a hospital “for sick and injured persons, without distinction of creed, under the auspices of the Methodist Episcopal Church, South.” Investigation by the trustees into the cost of building a modern hospital convinced them that the sum was not large enough to build an efficient, fireproof building, and they therefore invested the trust. By 1912 the value had increased to two million dollars, a sum which permitted the building of a hospital and left an endowment greater than the original fund. The trustees were studying hospital construction at the time Mr. Brookings was studying medical schools.

It was apparent to everyone concerned that the two projects, the building of a medical school and the construction of a modern hospital, were so interrelated that the purpose of each would be more successfully fulfilled by an affiliation. A medical school would provide a highly trained staff and would assure the most modern methods and superior laboratory facilities for the hospital. A teaching hospital would give the patient superior care and provide the essential clinical experience consistent with modern medical teaching methods.

During the spring of 1912 construction was begun on the medical school and hospital buildings which form the nucleus of the present center. The laboratories were moved from their old quarters in downtown St. Louis into the new buildings on Euclid and Kingshighway during the summer of 1914, and late in the fall of the same year the activities of the Washington University Hospital were transferred to the Barnes

10
Hospital. Concomitantly, the St. Louis Children's Hospital, then located on Jefferson Avenue, became affiliated with the School of Medicine and moved to its new quarters in the medical center.

On April 28, 29, and 30, 1915, exercises were held to celebrate the completion of this group of buildings designed to promote the practice, the teaching, and the progress of medicine. The dedication ceremonies marked what Dr. William H. Welch of the Johns Hopkins University called "one of the most significant events in the history of medical education in America." Robert S. Brookings, the one man most responsible for the reorganization, voiced the hope that "our efforts will contribute, in some measure, to raising the standard of medical education in the West, and that we will add, through research activities, our fair quota to the sum of the world's knowledge of medicine."

These prophetic words of Mr. Brookings have been realized. Local, national, and international recognition has come to the School and to members of the faculty. Three members of the faculty have been given the St. Louis Award, and research done at the School has resulted in five Nobel Prizes.

In the ensuing years the medical center has continued to grow, and now its facilities are unexcelled. With the increase in the physical plant there has also occurred a great increase in the size of the faculty; the expansion has been made without compromise in the standards which marked the early development of the medical center. As a result, significant achievements in both research and clinical areas have been recorded steadily.

AIMS AND GENERAL PLAN OF INSTRUCTION

The efforts of the School are directed toward providing able students with a stimulating and challenging milieu in which they may pursue the study of medicine. Because Washington University is a private institution, its School of Medicine is not bound by any arbitrary restrictions in its admissions policy; indeed, the School seeks the most able applicants without reference to geographic, racial, or religious origin. A large scholarship program, which continues to grow, helps to make it possible for the School to lend support to able students whose personal resources might otherwise prevent them from obtaining a medical education. At any given time the student body includes representatives from most of the fifty states and from the territories and foreign countries as well.

The educational policies are such as to offer the student not only a factual background, but more importantly, the opportunity to acquire a long-term approach to medicine. In a field which is developing as rapidly as is medicine, education only begins in medical school and must be considered a continuing project. It is hoped that
McMillan Hospital and
Oscar Johnson Institute
for Medical Research

Renard Hospital
this important concept will be inculcated in each student during his four years in the Medical School.

The educational exposure available makes it possible for students to develop the foundation for a career in medical practice or in medical education and research. The student research program enables any student interested to become acquainted with original laboratory investigation; a significant group avails itself of this opportunity, and a number of original contributions result from student research each year.

The course of study for candidates for the degree of Doctor of Medicine in all medical schools is designed as a basic preparation for the practice of medicine. As interpreted in this School, the basic preparation for a career in any field of medicine must include first of all an introduction to the principles of the medical sciences. There are reasons for strong emphasis on this point of view.

The phenomenal advances that characterize modern medicine and promise its continued progress for human betterment are the outgrowth of systematic experiments rather than merely of individual observation, experience, and skill. A fusion of accumulated systematic knowledge, the medical sciences, with the arts of medical practice constitutes medicine of today and tomorrow. Orderly information in terms of the scientific principles involved, acquired by those having an inclination to apply them to practical problems, furnishes an attitude of mind as well as a factual background that is essential to the study of clinical medicine.

The technical knowledge that has created modern medicine will surely continue to grow. Medical students must, therefore, form the habit of keeping up with new developments, of preparing themselves for the continued study of the medical sciences; without that habit and preparation, the subsequent progress of medicine will bring obsolescence to the individual. These ideas pervade the spirit of the medical science courses given during the first and second years.

Before entering upon the examination and study of patients who exhibit and illustrate the phenomena of health and disease treated by the medical sciences, the student must become acquainted with and acquire practice in techniques of clinical examination. This beginning experience is gained mainly from the conjoint courses given by teachers from several clinical departments during the second year.

With this preparation the student is ready, when he enters the third-year class, to begin the observation and study—first hand—of a variety of manifestations of health and disease as seen and cared for in clinics and hospitals. This clinical instruction occupies the third and fourth years. It consists mainly of a series of clerkships in wards and hospitals and outpatient services, supplemented by systematic courses of lectures and clinical conferences.

It is this planned sequence of scientific and practical training, combined with individual experience of student with patients, under guidance of clinical teachers who are also physicians and surgeons, that characterizes the basic professional course in medicine.

Because every medical student, irrespective of the field or specialty of medicine in
which he may desire or expect to practice, must become first a broadly trained doctor of medicine, nearly all courses of the undergraduate medical curriculum are obligatory. At the same time all students are encouraged to cultivate their individual interests and talents by special study of subjects or topics of their own selection. For this purpose several half days are left free in the class schedules, during which able students may do additional work in subjects of their greatest interest. A large number of student research fellowships are awarded each year to qualified applicants for summer work. Certain junior clerkships are offered during the summer so that students who elect to do so may satisfy course requirements in these subjects during the summer and may then devote an equal amount of time to research or other elective activities in the school year. In the second and fourth years six weeks are set aside for elective courses or for research. Some students who wish to arrange for eighteen weeks of uninterrupted free time for research may do so. The opportunity for special study is afforded in every department of the School.

The academic year is thirty-six weeks in length, except for seniors. The first year is divided into semesters, the second and third years into three twelve-week terms. The senior year consists of four twelve-week terms. The program is an intensive one and demands the full time and best efforts of students. They are discouraged from attempting outside work or employment during the sessions, especially the first two years.

MEDICAL SCHOOL BUILDINGS

The School is located along the eastern edge of Forest Park in the center of the city and is served by convenient public transportation; its site thus combines the advantages of pleasant surroundings and easy accessibility.

The laboratories and lecture rooms of the preclinical departments are housed in two wings of the main building of the School and in the West Building. The North Building contains the offices of the Vice Chancellor and the Dean, the Medical School library, an auditorium, and the facilities of the Department of Anatomy. The Cancer Research Wing houses other administrative offices, the bookstore, and numerous research laboratories. In the South Building are the Departments of Biochemistry, Physiology and Biophysics, and Pharmacology. The Departments of Microbiology, Pathology, and Preventive Medicine each occupy a floor in the West Building. The Student Health Service is also located in this building. The Biomedical Computer Center and the Department of Physical Therapy are situated in the McKinley Avenue Building.
THE HOSPITALS AND LABORATORIES

Adjacent to the Medical School building proper are the following hospital facilities:

The Barnes Hospital. This unit, which constituted the first hospital structure in the center, has grown from 150 beds to its present total of 520. Included are the medical and surgical wards, representing about half of the total number of beds, as well as the floors on which are available beds for semiprivate and private patients. In the extensive operating suite, all of the general surgical procedures as well as those relating to neurosurgery, thoracic surgery, urologic surgery, plastic surgery, orthopedic surgery, and gynecologic surgery are performed. The new Queeny Tower has three floors of beds. A large central diagnostic laboratory, under the direction of the Medical School staff, provides diagnostic service to all of the medical center. In the Barnes Hospital there is also a large cafeteria for the professional staff and the medical students.

The McMillan Hospital, including the Oscar Johnson Institute for Medical Research. This building is owned by the School of Medicine, but like all the hospitals within the medical center proper with the exception of St. Louis Children's Hospital, it is operated by the Director of Barnes Hospital. In it are 164 beds for the treatment of patients whose diseases fall in the fields of ophthalmology or otolaryngology. A small number of general medical patients are also admitted to the McMillan Hospital. The operating rooms and outpatient clinics of both the Departments of Ophthalmology and Otolaryngology are situated in the McMillan Hospital. The Oscar Johnson Institute, occupying the top five floors of the building, provides unexcelled research facilities for the above two departments, and for the Division of Neurology as well.

The St. Louis Maternity Hospital. Now owned by the University, this hospital became affiliated with the University in 1923, and moved to its present quarters in the medical center in 1927. Its 114 beds are devoted to ward, semiprivate, and private obstetrical and gynecologic patients, and there are corresponding facilities for newborns, including a unit for premature infants. The building also houses the research facilities of the Department of Obstetrics and Gynecology.

The St. Louis Children's Hospital. With the newly completed facilities there are now 163 beds for the care of infants and children. Also available are new outpatient facilities and extensive clinical and research laboratories for the Department of Pediatrics.

Edward Mallinckrodt Institute of Radiology. This unit, one of the largest and best equipped in the world, houses the diagnostic, therapeutic, and research activities of the Department of Radiology. The Institute, which is University owned, is connected on most of its floors with the adjoining Barnes and Barnard Hospitals, and through them with the other hospitals of the center, thus providing easy access for all inpatients. Many important advances, including the development of cholecystography by the late Dr. Evarts A. Graham and his associates, have been made at the Mallinckrodt Institute.
David P. Wohl, Jr., Memorial Hospital. The Wohl Hospital contains 81 beds for the care of medical and surgical patients, and also provides excellent new laboratories and offices for the Departments of Medicine and Surgery. Within the building are located a large amphitheatre, several small classrooms, and a student lounge.

Barnard Free Skin and Cancer Hospital. This building provides 34 beds for the treatment of indigent patients suffering from skin diseases and tumors. The Barnard Hospital has had a long and notable history, and its recent affiliation with the University medical center constitutes an important step in the development of both institutions.

Renard Hospital. The Renard Hospital, opened in 1955, provides 106 beds for patients with psychiatric diseases and also affords new laboratories and offices for the Department of Psychiatry and Neurology.

The Irene Walter Johnson Institute of Rehabilitation provides training for personnel in rehabilitation procedures, facilities for treatment of disabled persons in the St. Louis metropolitan area, and an active research program relating to Chronic Diseases.

The David P. Wohl, Jr. Memorial—Washington University Clinics building was opened in May, 1961. Five floors of the building are used for Washington University Clinics and five floors are devoted to facilities for research. In addition a 225-seat amphitheatre is located on the ground floor.

In addition to the above named facilities which make up the Washington University Medical Center proper, patients are available for teaching purposes in the following hospitals:

The various hospitals operated by the City of St. Louis, including two general hospitals: the St. Louis City Hospital with 909 beds, Homer G. Phillips Hospital with 511 beds; and Koch Hospital for tuberculosis.

Cochran Veterans Administration Hospital with 513 beds.

The Jewish Hospital of St. Louis with 509 beds.

All members of the staffs of the various hospitals in the Washington University Medical Center hold University appointments, and the Medical School nominates members of its faculty to the staffs of the various municipal hospitals.
STUDENT ACTIVITIES

Although the demands of the medical curriculum impose a greater load on students than they usually face in undergraduate colleges, there are opportunities for extracurricular activities, among which the following are of interest:

(a) **Student Representative Council.** This body is the official student government organization and is composed of the officers of the four classes. The Council works closely with the Associate Dean and has responsibility for such matters as the examination honor system, the student curriculum report (an annual compilation which presents student opinion regarding course material, teaching methods, etc.), and other matters of interest or concern to the students.

(b) **Washington University Medical Society.** This society, whose membership includes the faculty and all students, holds five meetings yearly, at which members present investigative work being carried on at the Medical School. In addition, in the Spring of each year, the Student Research Assembly is held for the purpose of enabling seniors to report on original research completed at any time during their four years in the School.

(c) **Athletic Facilities.** Excellent facilities for indoor and outdoor sports are available on the main University Campus. Students are furnished tickets free of charge for the many intercollegiate athletic events which take place throughout the year. The gymnasium in the Spencer T. Olin Residence Hall is available for the use of medical students.

(d) **Social Fraternities.** Two national fraternities are represented by chapters at the School. Each year distinguished scientists are invited to present the two guest lectureships sponsored by these organizations.

(e) Within the University community, excellent concerts, lectures, and other cultural activities are open to students in the School of Medicine. The city of St. Louis abounds in cultural and recreational facilities, among which are the City Art Museum, the Missouri Botanical Garden, the Museum of the Missouri Historical Society, and the Planetarium. The St. Louis Symphony Orchestra offers a series of twenty concerts during the season, and tickets at special student rates are available through the Medical School.

(f) In 1963 a gift from Mr. and Mrs. Evarts Graham, Jr., enabled the Medical School to establish the Graham Colloquium, a series of informal discussions led by outstanding scholars from fields other than medicine and the biological sciences. Mr. Graham's purpose was concordant with that of the School: to encourage opportunities for students to expand their views on social, philosophical, artistic, and political topics. Discussions with the invited guests, selected by the students, are held at night in the Olin Hall lounge on the second Tuesday of each month. In keeping with the intention of having an informal and lively exchange of views, refreshments are served and participation by wives and faculty is invited.
GRADUATE TRAINING

Although not required by all states for licensure, an internship in an approved hospital is considered essential preparation for the practice of medicine, and most graduates seek additional experience by serving as residents and later as fellows for periods up to five years.

In order to aid students in obtaining desirable intern appointments, an active counseling program is maintained by the Associate Dean. Thus, in their junior year, students are provided with general background information regarding the type of organization of the internships available. Since many more openings exist than there are candidates in any given year, students are able to exert a considerable measure of selection.

An open file is maintained in the Associate Dean’s Office wherein are kept brochures and other descriptive data regarding internships throughout the country; included are evaluations of their own appointments, obtained from recent graduates.

The School participates in the National Internship Matching Programs. It represents a valuable advance in this area and offers distinct advantages to applicants.

The School maintains an active interest in its graduates and is pleased to support them in subsequent years as they seek more advanced training or staff appointments in the communities in which they settle.
The air-conditioned library occupies the entire North Building except the part devoted to the Department of Anatomy. It is entered from the second floor, where the main Reading Room, Circulation and Information Desks, and staff offices are located. Four floors of stacks house about 90,000 volumes, including about 1,000 rare books; the William Beaumont manuscript collection; the Archives of the Medical School; and the scientific papers of Doctors Joseph Erlanger, Leo Loeb, and Evarts Graham. The Library receives regularly about 1,500 journals and most of the indexes and abstracts pertaining to medicine and allied fields, and adds about 3,000 volumes each year. A small collection of medical portraits is preserved, and exhibits on the literature and history of medicine are presented regularly. In addition to the main reading room, space for readers is provided by carrels throughout the stacks and by a reference reading room in the basement. The Library publishes *Library Notes* eight times a year.

The Library is open to all members of Washington University for consultation. Those not connected with the Medical Center may not, however, borrow material for home use. Photocopying service is provided, and a guide to the library may be obtained without charge. Computer based lists of journals (PHILSOM and PHILSOMS) and new books are available.

Members of the staff include Estelle Brodman, Librarian, Robert B. Austin, Miwa Ohta, Doris Bolef, and Stephen Faunce, among others.

Library hours are 8:30 a.m. to 12 p.m. on week days; 8:30 a.m. to 6:00 p.m. on Saturdays, and 1:00 to 10:00 p.m. on Sundays.

*A view of the main floor of the Library.*
## CALENDAR

### 1966-67

- **Registration for all new students**, Wednesday, September 7, 1966.
- **Registration for all former students**, Friday, September 9, 1966.
- **First Trimester ends Saturday**, December 3, 1966.
- **Holiday, Thanksgiving Day**, Thursday, November 24, 1966.
- **Second Trimester begins Monday**, December 5, 1966; ends Saturday, March 11, 1967.
- **Christmas Recess**, Saturday, December 17, 1966, at 1:00 p.m. to Tuesday, January 3, 1967, at 8:00 a.m.
- **Commencement**, Sunday, June 4, 1967.

### 1967-68

- **Summer term for seniors begins June 19, 1967; ends September 9, 1967.**
- **Registration for all new students**, Wednesday, September 6, 1967.
- **Registration for all former students**, Friday, September 8, 1967.
- **First Trimester begins Monday**, September 11; ends Saturday, December 2, 1967.
- **Christmas Recess, Saturday, December 16, 1966, at 1:00 p.m. to Tuesday, January 2, 1967, at 8:00 a.m.**
- **Third Trimester begins Monday**, March 11, 1968; ends Saturday, June 1, 1968.
- **Commencement**, Sunday, June 2, 1968.
The Rand-Johnson Surgical Pavilion, one of the major units of Barnes Hospital
Entrance requirements to the School of Medicine are:

1. Character, attitude, and interest suitable to carrying out the duties of a physician.
2. Intellectual ability and achievement, indicated by satisfactory scholastic work prior to entering medical school.
3. Completion of at least three years of college courses in an approved college or university, with minimum subject requirements as follows:
   - English: 6 semester hours
   - Chemistry: 15 semester hours, including experience in the techniques of quantitative analysis and a minimum of 4 hours of organic
   - Physics: 8 semester hours
   - Biology: 8 semester hours, at least 4 hours of which must be in zoology
4. Applicants are expected to have taken the Medical College Admissions Test of the Association of American Medical Colleges.

Because of the great importance of chemistry in all areas of the medical sciences, applicants are urged to pay special attention to their training in this subject. The requirement of 15 semester hours should be regarded as a bare minimum. Extra work in chemistry, especially physical chemistry, would be very profitable.

Although a background in biological subjects is valuable, the student is urged to emphasize courses which will not be repeated in medical school. For example, an undergraduate course in physiology, biochemistry, or bacteriology, if it duplicates material to be given later, would be less valuable than a solid course in zoology or genetics.

It is believed that students pursuing the course in medicine should have a well-rounded general education in addition to the specific requirements indicated above; thus the Committee on Admissions suggests that applicants obtain as much exposure to courses in other fields of knowledge as possible. Students who have majored in nonscientific fields are considered as acceptable as science majors as long as they have acquitted themselves well in the premedical courses.

The rest of the college work should be chosen with the object of developing the intellectual talents of the individual, rather than as required preprofessional preparation. The college work should include courses in language and literature, history, and the social sciences, or other subjects which may afford the foundation for cultural development. Unless that foundation is laid early, there is the danger that later demands of technical and professional training may lead to its neglect.

The interest and earnestness with which any study is done—more than the subject matter itself—may determine its lasting value. The spirit of a course may be more important than its content if it stimulates interest and cultivates an inquiring and thoughtful attitude. Development of an inclination to study and the habit of reasoning is more valuable than an obligatory course taken merely to satisfy entrance requirements.
Applications should be filed as soon as possible after July 1 of the year preceding that in which admission is sought. In requesting an application blank or a Bulletin, it is necessary that you furnish us with your zip code.

ADMISSION TO ADVANCED STANDING

Applicants who have satisfactorily completed one or two years of study at another approved medical school may be accepted for admission to the second- or third-year class (when vacancies exist), provided:

1. That they comply with the requirements above stated for admission to the first-year class.
2. That courses equivalent in general content and duration to those in this School in the years for which credit is asked have been satisfactorily completed.
3. That at the discretion of the Committee on Admissions, examinations may be required in any subjects already covered.

An applicant for admission to the upper classes must have studied as a matriculated medical student in an acceptable medical school for a period at least equal to that already spent by the class to which admission is sought.

ADMISSION OF GRADUATES IN MEDICINE

Applicants who hold the M.D. degree are not accepted as candidates for that degree except under unusual circumstances.

STANDING AND PROMOTION

The following procedure for action on promotion and graduation has been adopted:

1. After the completion of a major course each department reports to the dean’s office a numerical grade for each student in the class for that course, designating in each case “honors,” “pass,” or “fail.” The grade and designation may be based upon attitude and performance as well as upon examination grades. Final examinations are held at the close of each academic year.

2. For each class there is a Promotions Committee which periodically reviews the records of all students in that class and acts in accordance with the following rules:
   (a) A student having recorded failures in two major subjects (see list below) will be required to withdraw from the class.

   Major Subjects.
   First Year: Gross Anatomy, Microscopic Anatomy, Biochemistry, Physiology and Biophysics.
   Second Year: Microbiology, Pathology, Pharmacology, Medicine.
   Third Year: Medicine, Psychiatry (1/4), Neurology (1/4), Obstetrics and Gynecology (1/4), Surgery (1/2), Pediatrics (3/2).
REQUIREMENTS FOR DEGREES

Fourth Year: Medicine ($\frac{1}{2}$), Obstetrics and Gynecology ($\frac{1}{4}$), Surgery, Ophthalmology ($\frac{1}{2}$), Otolaryngology ($\frac{1}{2}$), Child and Adult Outpatient Clinics.

(b) Students who at the end of any year have recorded only one failure in a major department will be required to remove this failure as directed by the department concerned. When, and if, the failure is removed, the subcommittee will consider the student's entire record. A student who has recorded a second failure in the attempt to remove a first failure will be required to withdraw from his class.

(c) No student shall be promoted to the third year until there is satisfactory credit for all required subjects of the first and second year.

(d) Under exceptional circumstances the promotions committees may suggest to the Dean and to the Committee on Admissions and Scholarships that a student be allowed to repeat certain courses as a special student or to repeat the work of the entire year as a member of the next class.

The registration of a student may be canceled at any time if in the opinion of the faculty his further attendance is deemed undesirable. A prorata refund of the tuition will be made in such cases.

REQUIREMENTS FOR DEGREES

DOCTOR OF MEDICINE

A course of medical education for the M.D. degree consists of a minimum of four years of study. For selected students who are interested in an investigative or research program, a five-year course may be arranged subject to the approval of the Committee on Medical Education.

Candidates must be more than twenty-one years of age and of good moral character; they must have attended not less than four courses of instruction as matriculated medical students, the last of which has been in this School; they must have passed all required courses, or their equivalent, and have received satisfactory grades in the work of the entire four classes; and they must have discharged all current indebtedness to the University.

At the end of the fourth or fifth academic term, students who have fulfilled these requirements will be recommended for the degree of Doctor of Medicine. Candidates must be present when the degrees are conferred.

BACHELOR OF ARTS (COMBINED PROGRAM)

A student who enters the School of Medicine with three years of work in the College of Arts and Sciences of Washington University may become a candidate for the Bachelor of Arts degree at the end of the first year in the School of Medicine. Under this combined program he must fulfill the premedical requirements and also the following additional requirements:
1. He must have completed at least 90 academic units in liberal arts courses, with a minimum grade-point average of 1.0, and 4 units in physical training.

2. He must have completed all of the general requirements and at least 15 additional units in advanced courses\(^1\) in not more than 3 departments. These units will satisfy a part of the A.B. requirements relative to advanced courses.

3. In addition to completing at least 90 units of work in the College of Arts and Sciences, a student in the combined program must also satisfactorily complete the first year in the Washington University School of Medicine; this work will complete the departmental requirements for the A.B. degree.

4. A transfer student, to be eligible for the degree of Bachelor of Arts under the combined plan, must complete at least the last 30 units of A.B. work in full-time residence in the College of Arts and Sciences of Washington University. He must also fulfill all other conditions.

5. A candidate for the A.B. degree under the combined program must be recommended by the Dean of the School of Medicine to the Dean of the College of Arts and Sciences.

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**FEES AND OTHER EXPENSES**

The University reserves the right to change the fees herein stated at any time without notice. Whenever a change is made, it will become effective with the next installment due.

All fees and charges are payable in advance at the Office of the Registrar of the School of Medicine.

Checks should be made payable to Washington University.

**Tuition Fee.** For undergraduate students the present tuition fee is $1,600, payable in two equal installments, at the beginning of the first and second semesters. Starting in July, 1967, the fee will be $1,800 a year.

**Health Service Fee.** A health service fee of $45.00 per semester is charged to all students. The fee covers complete medical examination on entering the School and continued medical care including all necessary hospital costs, drugs, and limited dental service during the regular school year. Those students who remain at school during the summer may make arrangements for continuation of health service. The services of one or more physicians are available at designated times for consultation at the Student Health Clinic. A physician is available for emergency care either in the clinic or the student’s room when necessary. Hospital care is provided in the services of the Barnes Hospital. It is the aim of the staff to watch and safeguard the health of each student in the School. The responsibility of the Health Service automatically ceases

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\(^1\) A course on the 300 or 400 level may not be counted as advanced unless it is passed with a grade of C or higher. Courses numbered 301-302 and 401-402 in Aerospace Studies or Military Science may not be counted as advanced courses.
when the student for any reason discontinues his enrollment. The financial responsibility of the Student Health Service for hospitalization costs will end 30 days after the hospitalized individual ceases to be an officially enrolled student.

PARKING FEE. Students who park automobiles on the Medical School lots are required to pay a parking fee.

MICROSCOPE AND DIAGNOSTIC INSTRUMENTS

Each student entering the freshman class is required to possess a standard microscope. A student may purchase a microscope or may rent a microscope through the School of Medicine Bookstore. The rental cost is $75 for each year for a SICO monocular microscope. The rental includes insurance against all risks of direct loss or damage to the microscope. In the event of such loss or damage, the student will pay only the first $25 of such cost. The microscope may be purchased at the end of any rental period. One-half, or 50 per cent, of the rental cost will be credited against the purchase price. The present cost of the SICO monocular is $225.

The requirements for a microscope are relatively simple, and any of a wide variety of makes and models is equally satisfactory. In addition to obtaining a microscope that possesses good quality lenses and is in good working order, it is necessary that it be equipped with substage condenser, three objectives (approximately 10X, 40X, and oil immersion 90X), and fine as well as coarse focusing. A mechanical stage is useful, as is a very low power objective, either as a separate lens or as a portion of the 10X lens. It is unnecessary to buy a binocular microscope; monocular models magnify just as well. Microscopes do not wear out rapidly, and a used microscope in good condition is as useful as a new one and much less expensive. From these considerations it should be clear that it is not necessary to go heavily in debt to buy a microscope.

All students are required to provide themselves with stethoscopes, ophthalmoscopes, otoscopes, hemocytometers, percussion hammers, tape measures, flashlights, head mirrors, and skin pencils as the need for them arises.

Supplies and books may be purchased at the bookstore located in the Medical School.

ESTIMATE OF EXPENSES (1967-68)

An estimate of the average annual expenses of a student in the School of Medicine, excluding the cost of clothes, laundry, microscope, and incidentals, is given below. The amount will vary considerably, according to the individual.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Tuition</td>
<td>$1,800</td>
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<tr>
<td>Health Service Fee</td>
<td>$90</td>
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<tr>
<td>Books and Instruments</td>
<td>$150 to $250</td>
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<tr>
<td>Room, Board, and Incidentals</td>
<td>1,700 to 2,200</td>
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<td></td>
<td>$3,740</td>
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<td>$4,340</td>
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The Spencer T. Olin Residence Hall for medical students.
REGISTRATION

Registration for the first half-year of 1966-67 is scheduled for Wednesday, September 7 (new students) and Friday, September 9 (former students); for the second half-year, Monday, January 30, 1967.

Previously matriculated students who fail to register on any of the days set aside for that purpose will be charged a fee of $5.00.

WITHDRAWALS AND REFUNDS

A student who withdraws within the first two weeks of classes is charged 20% of the tuition fee; a student who withdraws during the third week is held for 40% of the charges; a student who withdraws during the fourth week is held for 60% of the charges; a student who withdraws during the fifth week is held for 80% of the charges. There is no refund of any portion of the tuition fee after the fifth week. No special fees are refundable after the second week of the term.

THE SPENCER T. OLIN RESIDENCE HALL

The Spencer T. Olin Residence Hall was made possible by generous gifts from Spencer T. Olin, alumni of the School of Medicine, and friends of the School.

This residence, located at 4550 Scott Avenue in the Medical Center, has accommodations for 295 single men and women students. No University housing for married students is available at the present time. The interior arrangement is much like a modern hotel. The main floor has a mail room, letter boxes, and a large lounge. The ground floor has a snack bar, music rooms, a laundry, and meeting rooms. A two-story gymnasium is available for use of the residents.

A nondenominational chapel, the gift of the Danforth Foundation, a lounge on the second floor for women students, the gift of William S. Bedal in memory of his mother, Dr. Adelheid C. Bedal, and a nonmedical library, a gift from the estate of Mary G. Reber, are available for use by the students.

Each of the upper floors has fifteen single bedrooms, seven double bedrooms, and two two-room suites. The second and third floors accommodate women students exclusively. A penthouse on the roof has a large room for dances and other social activities.

Rooms are assigned for the academic year, and no resident is permitted to transfer the assignment of his room or to allow occupancy by any other person.

Each occupant is required to pay a $25 Damage Deposit Fee in addition to the room rental fee. This fee will be held by the University until termination of residence to cover losses resulting from possible damage to the room or to the furniture. Any portion not so used will be refunded.
The rates for rooms are as follows:

**School year: September to June (9 months)**
- $525 per student in 2-room suite  
  (2 students per suite)
- 475 for student in single room
- 400 per student in double room

**Daily Rates for Visitors**
- $6.00 per person in 2-room suite
- 5.00 per person in single room
- 4.00 per person if undergraduate
  student, prospective student,
  or graduate student

**Summer: For Three Months**
- $175 per student in 2-room suite
- 160 per student in single room
- 125 per student in double room

**Summer: Weekly Rates**
- $14.75 per student in 2-room suite
- 13.50 per student in single room
- 10.50 per student in double room

**STUDENT RESEARCH FELLOWSHIPS**

A considerable number of research fellowships are awarded each year to students who undertake to do research projects under the direction of a faculty member. These fellowships, the number of which varies from year to year, are supported by funds provided by the United States Public Health Service, the Lederle Laboratories, the Tobacco Industry Research Committee, and others. In addition, the John and Mary Markle Foundation has provided funds for several of the preclinical departments to support additional staff members whose functions are to advise and consult with students interested in special research opportunities. Each year, at the Senior Research Assembly, the results of student research are presented before the Faculty and student body. Each year, also, a number of articles are published in which student research is presented to the scientific public. The Student Research Fellowships carry a stipend of $600, and are awarded for a minimum period of two months. They may be undertaken by any student after admission to the Medical School and during any vacation period. Application should be made to the Committee on Special Awards which supervises this program.
THE JACKSON JOHNSON FUND. Under the will of Jackson Johnson, the sum of $250,000 was given to the University, the income to be used "to aid worthy and desirable students in acquiring and completing their medical education." During recent years, the income from this fund has been devoted to Honor Scholarships named for the donor as well as to fellowships for needy students.

These Honor Scholarships are awarded on a regional basis with one or more scholarships being awarded annually to students from each of the following areas:

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<tr>
<th>Central</th>
<th>Local—Central</th>
<th>Northern</th>
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<td>Arkansas</td>
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<th>East—Southeast</th>
<th>Mid-Western</th>
<th>Western</th>
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<td>Alabama</td>
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<td>Virgin Islands</td>
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The Jackson Johnson Regional Scholarships have been established to enable young men and women with superior qualifications and promise for a career in medicine to come to Washington University, without regard to their financial circumstances.

Eligibility. Jackson Johnson Regional Scholarships are open to those who plan to enter the freshman class at Washington University School of Medicine or to transfer from a two-year medical school to the third-year class at Washington University. The
candidate must have resided for three years before application in one of the specified Regions, and have completed premedical work or the first two years of medicine in the same Region.

**Stipend.** Since the Jackson Johnson Regional Scholarships are regarded as prizes to be competed for by all students, the stipends will vary with the financial resources of the students. If there is no financial need, a scholarship without stipend will be awarded. The maximum stipend will be $1,800 a year.

**Selection.** The awards will be made by the Committee on Admissions and Scholarships with the approval of the Chancellor on the basis of the academic record in college or medical school, the score on the medical aptitude and other tests, the recommendations of professors and others concerning ability, character, qualities of leadership, and general all-around development, and the extracurricular activities both in and outside of the School.

**Renewals.** Awards may be renewed with the same or different stipends for the succeeding years of the medical course, provided the achievements of the scholar justify the continuance of the award. The School may withdraw a Jackson Johnson Regional Scholarship if at any time the student's record or his actions in the School or outside prove him unworthy of it.

**Application.** All students accepted for admission are considered for the Jackson Johnson Regional Scholarships, making it unnecessary to file a special application.

**Jackson Johnson Fellowships.** In order to provide opportunities for able and promising young men and women, three Jackson Johnson Fellowships in the Preclinical Sciences will be offered annually.

**Eligibility.** All applicants must be graduates of a recognized school of medicine, and acceptable for admission to the Graduate School of Arts and Sciences of Washington University as candidates for a doctoral degree. Preference will be given to those who expect to pursue an academic career in one of the preclinical sciences.

**Stipend.** The stipend will vary with the needs and ability of the individual to a maximum of $2000 a year for the first year.

**Renewal.** Awards may be renewed with the same or different stipends for not to exceed, in all, three years, provided the achievements of the fellow justify continued study.

**Application.** All applications should be completed by March 1 for the period beginning the following July or September. Awards will be announced about April 1.

**The Danforth Medical Fund.** The Danforth Foundation, Inc., and the late William H. Danforth have given the sum of $400,000 to further and promote the acquisition and dissemination of the knowledge of medical science and to support research and new discoveries in basic and clinical medicine and surgery. The principal and income of the Fund shall be used to furnish scholarships, fellowships, outright grants, or other financial assistance to talented and promising young men and women engaged or preparing to engage in such fields of study and endeavor. Mr. Danforth
established a Danforth Medical Fund Committee which consists of Dr. Glover H. Copher, Chairman, Dr. Samuel B. Grant and Dr. James Barrett Brown.

The persons to or for whom funds shall be made available shall be proposed by the Committee on Scholarships and Loans of the School of Medicine and shall be finally selected and determined with the advice and consent of the Danforth Medical Fund Committee. The awards are made by the Chancellor.

The George F. Gill Scholarship, instituted in memory of a former Clinical Professor of Pediatrics, entitles the holder to tuition remission of $100.

The Alumni Scholarship Award of $200 to be applied on the payment of the tuition fee is given for excellence in work during the preceding scholastic year on the recommendation of the Committee on Loans and Scholarships and the President of the Medical Alumni Association.

The Dr. John B. Shapleigh Scholarship. From a bequest of Dr. John B. Shapleigh, supplemented by contributions by Mrs. Shapleigh and Miss Margaret Shapleigh, a fund has been established, the income of which is used to pay the tuition of students in need of assistance.

The T. Griswold Comstock Scholarships. Through the bequest of Marilla E. Comstock, the annual income from $12,000 is used for two scholarships for students who otherwise would be unable to obtain a medical education and who desire and intend to follow the practice of medicine and surgery.

The Robert Allen Roblee Scholarships. Through the gift of Mrs. Joseph H. Roblee, the income from this endowment fund of $15,000 provides one or more scholarships for qualified, worthy, and deserving students.

The Alexander Baldridge Shaw Scholarships. Through the bequest of Roy A. Shaw, the annual income from $10,975 has been given in memory of his father, Dr. Alexander Baldridge Shaw, for scholarships in the School of Medicine.

The Aline Rixman Loan Fund. Provided through the gift of William Rixman, the fund is used to alleviate unexpected financial emergencies that arise among medical students during the academic year. The fund is available to any student who, in the judgment of the Dean, gives promise of becoming a competent physician. It is expected that loans will be repaid within a reasonable time after the student has finished his training.

Beulah B. Strickling Scholarship. Through the bequest of the late Mrs. Beulah B. Strickling, $5000 has been given to the School of Medicine for scholarships.

W. K. Kellogg Foundation Loan Fund. A generous gift has been made to this and other universities by the W. K. Kellogg Foundation to provide financial assistance to well-qualified medical students in need of such aid. A limited number of loans are available from this fund.
FELLOWSHIPS AND SCHOLARSHIPS

THE G. H. REINHARDT MEMORIAL SCHOLARSHIP FUND. Through the bequest of G. H. Reinhardt, an amount of not more than $400 each year is available to deserving students during their second year. No more than $100 shall be loaned to any one student. The loans are granted by the Chancellor on the recommendation of the Dean.

THE TEAMSTERS LABOR-MANAGEMENT CHARITABLE FOUNDATION SCHOLARSHIP FUND of $1,500 is available for scholarships in the School of Medicine. The scholarships are awarded by the Chancellor on the recommendation of the Dean.

JOSEPH H. SCHARF SCHOLARSHIP. Through the bequest of Dr. Joseph H. Scharf, the annual income from $2,418 is available for scholarships for worthy and needy students in the School of Medicine. The scholarships are awarded by the Chancellor on the recommendation of the Dean.

GRACE STRONG COBURN SCHOLARSHIP. Through the bequest of Mrs. Grace Strong Coburn, the income from an endowment fund of approximately $67,000 is to be used
by the School of Medicine for the purpose of providing scholarships to aid worthy
individuals engaged in the study of medicine or in improving their knowledge of
medicine.

ROY B. MILLER SCHOLARSHIP FUND. Through the bequest of Mr. Roy B. Miller, the
income from approximately $60,000 is available for scholarships for medical students
and for postgraduate study and research for such students as seem to be especially
capable of performing through their study and work things that would definitely
benefit mankind.

AVALON FOUNDATION SCHOLARSHIPS. The Avalon Foundation has made grants to
the School of Medicine for scholarships for medical students which are granted on a
combined basis of financial need and scholastic attainment.

THE THOMAS W. AND ELIZABETH J. RUCKER SCHOLARSHIPS. Through the bequest
of Eugenia I. Rucker, the income from the Thomas W. and Elizabeth J. Rucker
Scholarship Endowment of $81,234 provides scholarships for students in the School
of Medicine.

THE ISABEL VALLE BROOKINGS SCHOLARSHIP AND LOAN FUND. Through the gift
of Isabel Valle Brookings (Mrs. Robert S.), the income from this fund of $25,500 is
available for scholarships and loans in the School of Medicine.

EDWARD H. AND VIRGINIA M. TERRILL SCHOLARSHIP FUND. Through the bequest of
Dr. Edwin H. Terrill, the income from $40,000 is available for scholarships for medical
students.

MR. AND MRS. WILLIAM GREENBERG SCHOLARSHIP FUND. Through the gift of Mr.
and Mrs. William Greenberg, a scholarship has been made available for a medical
student.

THE ALEXANDER AND GERTRUDE BERG FELLOWSHIP. Through the bequest of the
late Mrs. Gertrude Berg, $40,000 has been given to the School of Medicine to establish
an endowment fund for a fellowship in the Department of Microbiology.

THE BERTHA REINHARDT GREEN MEMORIAL FUND. Through the bequest of the late
Mrs. Bertha Reinhardt Green, $5000 has been given to the School of Medicine for a
loan fund in Occupational and Recreational Therapy.

THE GEORGE W. MERCK MEMORIAL LOAN FUND. Through the gift of the Merck
Company Foundation, $20,000 is available as a loan fund to encourage deserving
interns and residents to seek the best possible postgraduate training.

THE HEALTH PROFESSIONS STUDENT LOAN FUND was established by federal legisla-
tion, and funds are available to the Washington University School of Medicine. These
loans are made for long terms at favorable interest rates.

STUDENT ASSISTANTSHIPS are available in a number of departments in the School.
Information may be obtained from the heads of the departments concerned.

Applications for all fellowships, scholarships, and assistantships may be made to the
Registrar. The awards are made by the Chancellor on the recommendation of the
Dean.
PRIZES

GEORGE F. GILL PRIZES:
1. One prize of fifty dollars is awarded at the end of the first year to the member of the class who has demonstrated superior scholarship in anatomical work.
2. One prize of fifty dollars is awarded to a member of the graduating class, of high general standing, who has shown especially good scholarship in the Department of Pediatrics.

THE KEHAR S. CHOWKÉ PRIZE of fifty dollars is awarded at the end of the first year to a medical student who has demonstrated superior scholarship in anatomical work.

ALPHA OMEGA ALPHA FRATERNITY PRIZE is awarded at the end of the fourth year to the member of that class who has made the highest average for the entire medical course.

ALPHA OMEGA ALPHA FRATERNITY PRIZE FOR STUDENT RESEARCH amounting to $25 is awarded to the student who submits the best thesis on a research problem.

THE ALEXANDER BERG PRIZE of one hundred dollars is awarded to a student of high general standing who presents the best results in research in bacteriology.

THE BIOCHEMISTRY PRIZE is awarded at the end of the first year to the member of the class who has demonstrated superior scholarship in biochemical work.

THE JAMES HENRY YALEM PRIZE IN DERMATOLOGY, established through the generosity of Mr. Charles Yalem, is awarded annually to a member of the senior class for outstanding work in dermatology.

THE BAKER LABORATORIES, INC., NUTRITIONAL AWARD of $100 is given annually to the student who has done the most outstanding work in nutrition, preferably but not necessarily in the field of pediatrics.

THE DR. RICHARD S. BROOKINGS AND DR. ROBERT CARTER MEDICAL SCHOOL PRIZES. Through a bequest from Robert S. Brookings, an endowment fund has been established, the income of which is to be used for annual prizes or rewards for medical students. At the present time these prizes are awarded annually for meritorious research or other performance carried on by students enrolled in the School of Medicine.

THE JACQUES J. BRONFENBRENNER PRIZE of $50, given by his students in memory of his inspiring accomplishment as a teacher and scientist, is awarded to the member of the graduating class who, in the judgment of the Chairman of the Department of Medicine, has done the most outstanding work in his class in the field of infectious diseases or related fields.

THE DR. JOSEPH J. GITT AND CHARLOTTE E. GITT PRIZE of $500 is awarded to a senior student for the best original work in the field of clinical and therapeutic medicine. The award shall be left to the decision of all of the department heads of Clinical Services, acting as a committee.

THE UPJOHN ACHIEVEMENT AWARD is an annual award of $200 to be given to the senior student who, in the opinion of an Administrative Committee representing the Dean's Office, has done the most meritorious work during his medical school career in the field of metabolism.
The Prize Fund of the Medical Fund Society:

1. One prize of one hundred dollars is awarded annually to the student of the senior class who shall in the opinion of the faculty have excelled in the study of internal medicine, provided, however, that no student shall be eligible for this prize who has not been a bona fide student of medicine in the School of Medicine of Washington University for the full junior and senior years.

2. One prize of one hundred dollars is awarded annually to that student of the senior class who shall in the opinion of the faculty have excelled in the study of surgery, provided, however, that no student shall be eligible for this prize who has not been a bona fide student of medicine in the School of Medicine of Washington University for the full junior and senior years.

It is stipulated that no individual shall be eligible for both prizes.

The Howard A. McCordock Book Prize is awarded at the end of the second year to a member of that class for general excellence in pathology.

The Sidney I. Schwab Book Prizes are awarded at the end of the fourth year to members of that class for general excellence in pathology.

The Borden Undergraduate Research Award of five hundred dollars is awarded to that member of the graduating class who, during any year while enrolled in the School, has carried out the most meritorious undergraduate research.

The Missouri State Medical Association Award of a scroll and a $100 U. S. Savings Bond is presented annually to an honor graduate of the senior class.

The Roche Award of a scroll and a gold wrist watch is presented at the end of the second year to the student who best exemplifies the ideals of the modern American physician.

The National Foundation Merit Award of $250 is given to the medical student who is judged by the School of Medicine to have written the best thesis or the equivalent on any subject relating to "Birth Defects."

Lange Medical Publications Book Awards are given to members of all four classes for high scholastic standing and achievement in research.

The C. V. Mosby Company Book Awards are made to five members of the graduating class for high general scholastic standing and research achievement.
LECTURESHPs

Leo Loeb Lecture. Provided by the Mu Chapter of the Phi Beta Pi Fraternity.

Robert J. Terry Lectureship. Established by alumni "for the purpose of fostering greater appreciation of the study of human anatomy."

Major G. Seelig Lectureship. Established by friends in the field of surgery in honor of Dr. and Mrs. Seelig.

George H. Bishop Lectureship. Supported by funds made available by friends interested in the advancement of neurology.

Philip A. Shaffer Lectureship. Founded by friends of Dr. Shaffer in recognition of his accomplishments in biochemistry.

Samuel B. Grant Visiting Professorship. Established to provide annually a visiting professorship in the Department of Medicine.

Harry Alexander Visiting Professorship. An annual visiting professorship in the Department of Medicine has been established by former house officers and friends of Harry Alexander.

Alexis F. Hartmann, Sr., Lecture. Established by friends interested in pediatrics to provide an annual lecture in Dr. Hartmann's honor.
# CLASS SCHEDULE • FIRST YEAR

## FIRST SEMESTER—September 12, 1966 through January 28, 1967

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<th>Hours</th>
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* Biostatistics for last 6 weeks of first semester.

Anatomy for first 12 weeks of first semester.

** Health and Health Maintenance for first 12 weeks of first semester from 1:30 to 2:30.

Anatomy for last 6 weeks of first semester.

## SECOND SEMESTER—January 30 through June 3, 1967

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* Biostatistics for first 6 weeks of second semester.

Physiology and Biophysics for last 12 weeks of second semester.
CLASS SCHEDULE • SECOND YEAR

FIRST TRIMESTER—September 12 through December 3, 1966

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SECOND TRIMESTER, 1st half (6 weeks)—December 5-17, 1966, and January 3-28, 1967

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SECOND TRIMESTER, 2nd half (6 weeks)—January 30 through March 11, 1967

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THIRD TRIMESTER—March 13 through April 22, 1967 (6 weeks)

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THIRD TRIMESTER—April 24 through June 3, 1967 (6 weeks) ELECTIVES
## MEDICINE SERVICE

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<td></td>
<td>Lectures 12 to 1:30*</td>
<td>C P C</td>
<td>Ob. &amp; Gyn.</td>
<td>Medicine Clinic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 2</td>
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<td>2 to 3</td>
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<tr>
<td>3 to 4</td>
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<tr>
<td>4 to 5</td>
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</tr>
</tbody>
</table>

Section I—City Hospital or Veterans Administration Hospital.
Section II—Barnes Hospital or Jewish Hospital.
Sections change at end of 6-week period.

## SURGERY SERVICE, 6 weeks; NEUROLOGY SERVICE, 3 weeks; PSYCHIATRY SERVICE, 3 weeks

<table>
<thead>
<tr>
<th>Hours</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 to 10</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group A—Second Trimester, December 5-17, 1966, and January 3 through March 11, 1967.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 to 11</td>
<td>Group B—First Trimester, September 12 through December 3, 1966.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 to 12</td>
<td>Group C—Third Trimester, March 13 through June 3, 1967.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 1</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Lectures 12 to 1:30*</td>
<td>C P C</td>
<td>Ob. &amp; Gyn.</td>
<td>Medicine Clinic</td>
<td></td>
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<tr>
<td>1 to 2</td>
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<td>2 to 3</td>
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<td>3 to 4</td>
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<tr>
<td>4 to 5</td>
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</tr>
</tbody>
</table>

Section I—Surgery
Section II—Group a. Psychiatry
   b. Neurology

Groups change at end of 3 weeks
Sections change at the end of 6-week period.

* Surgery first two trimesters.
Ophthalmology first seven weeks of third trimester.
Otolaryngology last five weeks of third trimester.
Regular attendance at these noon sessions is encouraged and students will be held responsible for the material covered. However, it is recognized that conflicting responsibilities on the clinical clerkships may prevent attendance at every session.
### CLASS SCHEDULE—THIRD YEAR

PEDiatric SERVICE, 6 weeks; OBSTetrics AND gynecology SERVICE, 6 weeks

<table>
<thead>
<tr>
<th>Hours</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 to 12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 1</td>
<td>Lectures</td>
<td>C.P.C</td>
<td>Ob. &amp; Gyn.</td>
<td>Medicine Clinic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 1:30*</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 2</td>
<td>Section I—Pediatrics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 to 3</td>
<td>Section II—Obstetrics and Gynecology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 to 4</td>
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<tr>
<td>4 to 5</td>
<td>Sections change at end of 6-week period.</td>
<td></td>
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</tr>
</tbody>
</table>

* Surgery first two trimesters.
Ophthalmology first seven weeks of third trimester.
Otolaryngology last five weeks of third trimester.
### MEDICINE SERVICE, 6 weeks; OBSTETRICS AND GYNECOLOGY, 3 weeks; OPHTHALMOLOGY, 1 week; OTOLARYNGOLOGY, 2 weeks

<table>
<thead>
<tr>
<th>Hours</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
</table>
| 9 to 10 | Group A—Summer Term, June 20 through September 10, 1966.  
         | Group C—Second Trimester, December 5-17, 1966, and January 3 through March 11, 1967.  
         | Group D—First Trimester, September 12 through December 3, 1966. | | |
| 10 to 11 | | | | | |
| 11 to 12 | | | | | |
| 12 to 1 | | | | | |
| 2 to 3 | | | | | |
| 3 to 4 | C P C | Pediatrics* | Medicine Clinic | |
| 4 to 5 | | | | | |

### SURGERY SERVICE, 12 weeks

<table>
<thead>
<tr>
<th>Hours</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
</table>
| 9 to 10 | Group A—Second Trimester, December 5-17, 1966, and January 3 through March 11, 1967.  
         | Group B—First Trimester, September 12 through December 3, 1966.  
         | Group C—Summer Term, June 20 through September 10, 1966.  
| 10 to 11 | | | | | |
| 11 to 12 | | | | | |
| 12 to 1 | | | | | |
| 2 to 3 | | | | | |
| 3 to 4 | C P C | Pediatrics* | Medicine Clinic | |
| 4 to 5 | | | | | |

* Pediatrics lectures for first 27 weeks of the year.  
Lectures in Medical Jurisprudence are given during the last 9 weeks of the third trimester from 12 to 1. This course is required of all senior students.
CHILD AND ADULT OUTPATIENT CLINIC CLERKSHIP, 12 weeks

Group B—Second trimester, December 5-17, 1966 and January 3 through March 11, 1967.
Group C—First trimester, September 12 through December 3, 1966.
Group D—Summer term, June 20 through September 10, 1966.

One-fourth of class is divided into 4 groups of 5 to 6 students for this clerkship. The schedule allows for one-half day a week of free time for each student.

9 a.m.-noon First Six Weeks

<table>
<thead>
<tr>
<th>Groups</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Medicine 1-10</td>
<td>Medicine 11-20</td>
<td>Medicine 1.5</td>
<td>Medicine 11-15</td>
<td>Medicine 6-10</td>
<td>Medicine 16-20</td>
</tr>
<tr>
<td>2</td>
<td>Pediatrics 11-15</td>
<td>Pediatrics 1.5</td>
<td>Pediatrics 11-15</td>
<td>Pediatrics 1.5</td>
<td>Pediatrics 11-15</td>
<td>Pediatrics 11-15</td>
</tr>
<tr>
<td>3</td>
<td>Psychiatry 16-20</td>
<td>Psychiatry 6-10</td>
<td>Psychiatry 6-10</td>
<td>Psychiatry 16-20</td>
<td>Psychiatry 1.5</td>
<td>Psychiatry 11-15</td>
</tr>
<tr>
<td>4</td>
<td>Ob. &amp; Gyn. 16-20</td>
<td>Ob. &amp; Gyn. 6-10</td>
<td>CPC</td>
<td>Pediatrics 16-20</td>
<td>Pediatrics 6-10</td>
<td>Medicine Clinics</td>
</tr>
<tr>
<td>Noon Clinics</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2 to 5 p.m.</td>
<td>Pediatrics 1-5</td>
<td>Pediatrics 11-15</td>
<td>Pediatrics 1-5</td>
<td>Pediatrics 11-15</td>
<td>Pediatrics 1-5</td>
<td>Pediatrics 11-15</td>
</tr>
<tr>
<td>2</td>
<td>Dermatology 6-10</td>
<td>Dermatology 1.5</td>
<td>Dermatology 16-20</td>
<td>Dermatology 11-15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Neurology 16-20</td>
<td>Prev. Med. 1.10</td>
<td>Neurology 6-10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Prev. Med. 11-20</td>
<td>Amputee 6-10</td>
<td>Hypertension 16-20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Pediatrics lectures for first 27 weeks of the year.
* Lectures in Medical Jurisprudence are given during the last 9 weeks of the third trimester on Fridays from 12 to 1. This course is required of all senior students.
### CLASS SCHEDULE—FOURTH YEAR

#### 9 a.m.-noon

<table>
<thead>
<tr>
<th>1</th>
<th>Medicine 1-10</th>
<th>Medicine 11-20</th>
<th>Medicine 1-5</th>
<th>Medicine 11-15</th>
<th>Medicine 6-10</th>
<th>Medicine 16-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Psychiatry 11-15</td>
<td>Psychiatry 1-5</td>
<td>Psychiatry 6-10</td>
<td>Psychiatry 16-20</td>
<td>Psychiatry 1-5</td>
<td>Psychiatry 11-15</td>
</tr>
<tr>
<td>4</td>
<td>Noon Clinics</td>
<td></td>
<td></td>
<td>Ob. &amp; Gyn. 11-15</td>
<td>Ob. &amp; Gyn. 1-5</td>
<td>Ob. &amp; Gyn. 11-15</td>
</tr>
</tbody>
</table>

#### 2:5 p.m.

<table>
<thead>
<tr>
<th>1</th>
<th>Pediatrics 6-10</th>
<th>Pediatrics 16-20</th>
<th>Pediatrics 6-10</th>
<th>Pediatrics 16-20</th>
<th>Pediatrics 6-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Dermatology 15</td>
<td>Dermatology 6-10</td>
<td>Dermatology 11-15</td>
<td>Dermatology 16-20</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Neurology 11-15</td>
<td></td>
<td>Prev. Med. 11-15</td>
<td>Neurology 1-5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Prev. Med. 11-20</td>
<td>Amputee 1-5</td>
<td></td>
<td>Hypertension 11-15</td>
<td></td>
</tr>
</tbody>
</table>

* Pediatrics lectures for first 27 weeks of the year.
* Lectures in Medical Jurisprudence are given during the last 9 weeks of the third trimester on Fridays from 12 to 1. This course is required of all senior students.

### ELECTIVE OR FREE TIME, 12 weeks

- **Group A**—First trimester, September 12 through December 3, 1966.
- **Group B**—Summer term, June 20 through September 10, 1966.
- **Group C**—Third trimester, March 13 through June 3, 1967.
- **Group D**—Second trimester, December 5-17, 1966, and January 3 through March 11, 1967.
<table>
<thead>
<tr>
<th>First Year</th>
<th>Clock Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>618</td>
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<tr>
<td>Biological Chemistry</td>
<td>306</td>
</tr>
<tr>
<td>Physiology and Biophysics</td>
<td>270</td>
</tr>
<tr>
<td>Biostatistics</td>
<td>24</td>
</tr>
<tr>
<td>Medical Psychology</td>
<td>18</td>
</tr>
<tr>
<td><strong>1,236 Total Hours</strong></td>
<td></td>
</tr>
</tbody>
</table>

| Second Year                                   |             |
| Pharmacology                                  | 216         |
| Microbiology                                  | 216         |
| Pathology                                     | 288         |
| Conjoint Medicine                             |             |
| Physical Diagnosis                            | 72          |
| Clinical Diagnosis                            | 24          |
| Laboratory Methods of Diagnosis               | 120         |
| Pathologic Physiology                         | 36          |
| Introduction to Surgery                       | 12          |
| Pediatrics                                    | 12          |
| Pathology of Behavior                         | 48          |
| Parasitology                                  | 36          |
| Prevention and Control of Disease             | 12          |
| History of Medicine                           | 6           |
| Elective                                      | 216         |
| **1,314 Total Hours**                         |             |

| Third Year                                    |             |
| Surgery Clerkship                             | 198         |
| Psychiatry Clerkship                          | 117         |
| Neurology Clerkship                           | 117         |
| Otolaryngology Lectures                       | 10          |
| Ophthalmology Lectures                        | 7           |
| Surgery Lectures                              | 36          |
| Clinical Pathological Conference              | 36          |
| Medicine Clerkship                            | 384         |
| Medicine Lectures                             | 36          |
| Pediatrics Clerkship                          | 198         |
| Obstetrics and Gynecology                     | 198         |
| **1,337 Total Hours**                         |             |
### TABLE OF REQUIRED HOURS

#### Fourth Year

<table>
<thead>
<tr>
<th>Clerkship</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery Clerkship</td>
<td>396</td>
</tr>
<tr>
<td>Clinical Pathological Conference</td>
<td>36</td>
</tr>
<tr>
<td>Medicine Clerkship</td>
<td>198</td>
</tr>
<tr>
<td>Medical Jurisprudence</td>
<td>9</td>
</tr>
<tr>
<td>Medicine Lectures</td>
<td>36</td>
</tr>
<tr>
<td>Pediatric Lectures</td>
<td>27</td>
</tr>
<tr>
<td>Obstetrics and Gynecology Clerkship</td>
<td>96</td>
</tr>
<tr>
<td>Out-Patient Clinics</td>
<td>360</td>
</tr>
<tr>
<td>Otolaryngology Clerkship</td>
<td>64</td>
</tr>
<tr>
<td>Ophthalmology Clerkship</td>
<td>32</td>
</tr>
</tbody>
</table>

Total Hours: 1,254

#### Clinic hours

<table>
<thead>
<tr>
<th>Field</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine</td>
<td>72</td>
</tr>
<tr>
<td>Obstetrics and Gynecology</td>
<td>36</td>
</tr>
<tr>
<td>Neurology</td>
<td>18</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>54</td>
</tr>
<tr>
<td>Preventive Medicine</td>
<td>36</td>
</tr>
<tr>
<td>Dermatology</td>
<td>36</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>90</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>18</td>
</tr>
</tbody>
</table>

Total Clinic hours: 360

Total for four years: 5,141 clock hours
DEPARTMENTS OF
THE SCHOOL OF MEDICINE

ANATOMY

BIOLOGICAL CHEMISTRY

INTERNAL MEDICINE—DERMATOLOGY

MICROBIOLOGY

NEUROLOGY

OBSTETRICS—GYNECOLOGY

OPHTHALMOLOGY

OTOLARYNGOLOGY

PATHOLOGY

PEDIATRICS

PHARMACOLOGY

PHYSIOLOGY AND BIOPHYSICS

PREVENTIVE MEDICINE—PUBLIC HEALTH

PSYCHIATRY

RADIOLOGY

SURGERY
Air view of the Washington University School of Medicine Campus, the affiliated hospitals, and the surrounding area.
The anatomical sciences are presented in two required courses (gross anatomy, microscopic anatomy). These are supplemented by clinical demonstrations supervised by members of other departments. Emphasis is placed upon the biological relationships of morphology to other disciplines of medical science. Lectures, demonstrations, and laboratory teaching are all used to call attention to the results of recent investigations and to acquaint students with the current literature. There are facilities for special work in gross anatomy, physical anthropology, embryology, neuroanatomy, cytology, histochemistry, and electron microscopy.

Professor and Head of Department

Dr. Sarah A. Luse, Professor of Anatomy, at one of the electron microscopes.
Professors

Estelle Brodman (Medical History in Anatomy), A.B., Cornell University, 1935; B.S., Columbia University, 1936; M.S., 1943; Ph.D., 1953.

Walter Page Covell, B.S., Oregon State College, 1922; M.S., 1923; Ph.D., University of Minnesota, 1926; M.D., University of Chicago, 1933. (See Department of Otolaryngology)

Sarah A. Luse, A.B., Rockford College, 1940; M.D., Western Reserve University, 1949. (See Department of Pathology)

Mildred Trotter, A.B., Mount Holyoke College, 1920; Sc.M., Washington University, 1921; Ph.D., 1924; Sc.D. (hon.), Western College, 1956; Sc.D. (hon.), Mount Holyoke College, 1960. (See Department of Radiology)

Professor Emeritus

Edmund Vincent Cowdry, A.B., University of Toronto, 1909; Ph.D., University of Chicago, 1912.

Associate Professors

Cecil Marvin Charles, A.B., University of Kentucky, 1926; M.S., 1927; Ph.D., Washington University, 1929; M.D., 1933. (See Department of Medicine)

Sam L. Clark, Jr., M.D., Harvard University, 1949.

Adolph Irvin Cohen, B.S., City College of New York, 1948; M.A., Columbia University, 1950; Ph.D., 1954. (See Department of Ophthalmology)


Research Assistants

Oliver H. Duggins, B.S., Northwestern University, 1934; M.S., 1936; Ph.D., Washington University, 1953.


Lydia E. Thomas, B.S. (Nursing), Simmons College, 1957.

Professor Emeritus

Milton N. Goldstein, B.S., Western Reserve University, 1946; M.S., 1947; Ph.D., 1952.

Roy Reed Peterson, A.B., University of Kansas, 1948; Ph.D., 1952.

Associate Professor Emeritus

Valentina Suntzeff, M.D., Women's Medical Institute (Petrograd, Russia), 1917. (Cancer Research) (Also holds title of Lecturer)

Assistant Professor

Lorraine Lake, B.S., Washington University, 1950; M.A., 1954, Ph.D., 1962. (See Departments of Physical Therapy and Institute of Rehabilitation)

Associate Professor Emeritus

Valentina Suntzeff, M.D., Women's Medical Institute (Petrograd, Russia), 1917. (Cancer Research) (Also holds title of Lecturer)

Assistant Professor


Consultant

Hugh Monroe Wilson (Radiology), B.A., Illinois College, 1924; M.D., Washington University, 1927; M.A. (hon.), Yale University, 1945. (See Department of Radiology)

First Year

10 (501). Gross Anatomy. Each student shares a cadaver with one partner and so dissects one-half of the human body. An extensive collection of dissected specimens is housed in the dissecting rooms so that students may easily compare their dissections with museum specimens. X-ray equipment and films are used to complement the current dissections; cine-radiographs are presented regularly; and a collection of radiographs is loaned to each student. Fresh organs are provided for demon-
stration and dissection at approximate times. Special attention is given to surface anatomy. Students examine each other and are encouraged to learn as much as possible from the living subjects. Occasional attendance at autopsies is recommended. Frequent discussions are held with small groups of students. 336 hours.  
(Drs. Trotter, Charles, Peterson)

11 (506 and 507). Microscopic Anatomy. Each student is required to have his own microscope, and is loaned a collection of prepared slides which he can study either at home or in the laboratory. He is also loaned a collection of electron micrographs which supplements the histological preparations. Fresh tissues are frequently used in the laboratory, and are especially valuable for determining some of the histochemical reactions of cells. Demonstrations are regularly presented, in which material involving complex techniques can be made available. Frequent and extemporaneous conferences are made possible by the use of laboratories seating about twenty students.

The latter part of the course is devoted to a study of the central nervous system. The principal tracts and nuclei are discussed in lectures, studied in the laboratory by means of dissections, prepared slides, and photographs, and related to the functions of the nervous system by lectures, discussions, and demonstrations. As in histology, morphological structure is related to growth, development, chemical composition, and physiological functions. 282 hours. (Drs. Clark, Luse, Cohen, Enders, Goldstein, Laatsch)

ELECTIVE COURSES

50. Topographical Anatomy. Laboratory study of topographical anatomy may be undertaken at any time during the year. Sections, museum preparations, and models are used as material. Hours to be arranged.

51. Dissection. Opportunities are offered at any time except August and September for students and physicians desiring to review the subject. Any of the following parts may be elected for study: head and neck, thorax and upper limb, abdomen and pelvis, lower limb. A fee will be charged, except for medical students who elect this for credit.

52. Advanced Work in Gross Anatomy, Histology, Cytology, Embryology, Neurology and Physical Anthropology. A study of the literature on certain selected problems accompanied by individual laboratory work. Hours to be arranged.

53. Research. Properly qualified individuals are encouraged to carry on research in the anatomical sciences. (See Bulletin of the Graduate School of Arts and Sciences.)

Note—The numbers in parentheses indicate that the course carries credit in the Graduate School of Arts and Sciences and may be found under that number in the Bulletin of that School.
DEPARTMENT OF BIOLOGICAL CHEMISTRY

The department offers a first-year course in biological chemistry for students of medicine and for students in the Graduate School of Arts and Sciences. Students of medicine, as well as graduate students, are afforded the opportunity to pursue research work under the direction of the staff. Facilities are provided for research on the preparation and properties of enzymes, the mechanism of their action, and on the metabolism of carbohydrates and proteins. Some summer research fellowships are offered to students of medicine.

Professor and Head of Department

Distinguished Service Professor
Professor
David H. Brown, B.S., California Institute of Technology, 1942; Ph.D., 1948.

Associate Professors
George R. Drysdale, B.S., Birmingham-Southern College, 1948; M.S., University of Wisconsin, 1950; Ph.D., 1952.
Carl Frieden, B.A., Carleton College, 1951; Ph.D., University of Wisconsin, 1955.
Luis Glaser, B.A., University of Toronto, 1953; Ph.D., Washington University, 1956.
Ernst Helmreich, M.B., University of Munich, 1945; M.D., University of Erlangen, 1949.
Philipp Strittmatter, B.S., Juniata College, 1949; Ph.D., Harvard University, 1954.

Research Associate Professor
Barbara Illingworth Brown (Established Investigator of the American Heart Association), B.A., Smith College, 1946; Ph.D., Yale University, 1950.

Assistant Professors
Philip W. Majorus, M.D., Washington University, 1961. (See Department of Medicine)

Instructor
Juris Ozols, B.S., University of Washington, 1953; Ph.D., 1962. (USPHS Postdoctoral Fellow July 1 to September 22, 1966)

Lecturer
Walter Gibson Wiest, A.B., Brigham Young University, 1948; Ph.D., University of Wisconsin, 1952. (See Department of Obstetrics and Gynecology)

Research Assistant
Carmelita Lowry, B.S., University of Illinois, 1944.

FIRST YEAR
10 (503). Biological Chemistry. Lectures, conferences and laboratory work covering those portions of the subject which are of especial importance to the student of medicine. First year; second semester. 306 hours. Graduate student credit: 10 units; lectures only: 4 units.

ELECTIVE COURSES
50 (504). Advanced Work. Hours and credit to be arranged.
51 (505). Enzyme Mechanisms. Credit 3 units
52 (506). Special Topics in Biochemistry. Credit 3 units.
53 (515). Research. Hours and credit to be arranged.
54 (523-524). Biochemistry Seminar. An advanced course organized as a series of seminars designed to encourage interdepartmental contact between students and staff of all departments. Topics to be considered in depth will be selected from the following: (1) carbohydrates, (2) amino and nitrogen metabolism, (3) proteins, (4) lipids, (5) co-enzymes, (6) regulation of cellular processes, (7) energy relationships and kinetics, and (8) cellular permeability and transport mechanisms. As appropriate, additional topics in biology will be introduced. Ordinarily required of all graduate students in the department. Hours and credit to be arranged.

Note—The numbers in parentheses indicate that the courses carries credit in the Graduate School of Arts and Sciences and may be found under that number in the Bulletin of that School.
THE JOHN MILLIKEN DEPARTMENT OF MEDICINE
(Includes Internal Medicine and Dermatology)

For the purposes of both teaching and research, the Department of Medicine is divided into specialty divisions under the following directors:
- Arthritis and Connective Tissue Diseases: Dr. Osterland, Dr. E. Tan
- Cardiovascular Disease: Dr. J. Smith, Dr. Brent Parker
- Dermatology: Dr. Demis
- Gastroenterology: Dr. M. Peterson
- Hematology: Dr. E. B. Brown, Jr.
- Hypertension: Dr. H. M. Perry
- Immunology: Dr. Charles Parker
- Infectious Diseases: Dr. Harford
- Malignant Disease: Dr. Reinhard
- Medical Genetics: Dr. Sly
- Endocrinology and Metabolism: Dr. Daughaday, Dr. Kipnis
Instruction in Medicine commences with the second trimester of the second year and continues throughout the third and fourth years of the curriculum. The teaching of the second year has two main objectives: first, the correlation of the basic sciences with the clinical aspects of disease, and second, training in the technical methods of physical examination and laboratory diagnosis. By the beginning of the third year the student is prepared for supervised clinical study of individual patients in the wards. The emphasis in the junior year is placed upon clinical diagnosis. In the final year each student acts for six weeks as clinical clerk in the wards of Barnes Hospital and also participates for twelve weeks in the co-ordinated outpatient clerkship under the supervision of the Department of Preventive Medicine. During his senior clinical clerkship he receives formal instruction in medical therapeutics.

Summer clerkships for which students may receive full credit are offered to juniors. Students electing these summer clerkships may complete in advance their required work in Medicine and thus gain additional elective or vacation time during the regular academic year.

Richard M. Krause, A.B., Marietta College, 1947; M.D., Western Reserve University, 1952 (See Department of Preventive Medicine and Public Health)
Gerald T. Perkoff, M.D., Washington University, 1948. (City Hospital)
Edward Humphrey Reinhard, A.B., Washington University, 1935; M.D., 1939. (See Department of Radiology)
Robert Ely Shank, A.B., Westminster College, 1935; M.D., Washington University, 1939. (See Department of Preventive Medicine and Public Health)
Stanford Wessler, B.A., Harvard University, 1938; M.D., New York University, 1942. John E. and Adeline Simon Professor. (Jewish Hospital)

Proffessors Emeriti (Clinical)
Harry Louis Alexander, A.B., Williams College, 1910; M.D., Columbia University, 1914.
Clinton Welsh Lane (Dermatology), A.B., St. Mary's College (Kansas), 1916; M.D., St. Louis University, 1921.
Assistant Professors

Elmer B. Brown, Jr., A.B., Oberlin College, 1946; M.D., Washington University, 1950.
William H. Danforth, A.B., Princeton University, 1947; M.D., Harvard University, 1951. (Established Investigator of the American Heart Association)
D. Joseph Demis (Dermatology), B.S., Union College, 1950; Ph.D., University of Rochester, 1953; M.D., Yale University, 1957.
Albert B. Eisenstein, A.B., University of Missouri, 1941; M.D., Washington University, 1944. (See Department of Preventive Medicine and Public Health) (Cochran Veterans Administration Hospital)
Anthony P. Fletcher, B.M., University of London, 1943; B.S., 1943; M.D., 1949.
Samuel B. Guze, M.D., Washington University, 1944. (See Department of Psychiatry)
B. V. Jager, A.B., Harvard University, 1934; M.D., 1938. (See Department of Preventive Medicine and Public Health)
M. Kenton King, B.A., University of Oklahoma, 1947; M.D., Vanderbilt University, 1951. (See Department of Preventive Medicine and Public Health)
Brent M. Parker, M.D., Washington University, 1952.
Horace Mitchell Perry, M.D., Washington University, 1946. (Cochran Veterans Administration Hospital)

Research Associate Professor

Norma A. Fletcher, M.S. (Chemical Engineering), The Technical University, Copenhagen, 1949; Ph.D., University of Copenhagen, 1964.

Associate Professors (Clinical)

Cyril M. MacBryde, A.B., Washington University, 1926; M.D., Harvard University, 1930.
Edward Massie, A.B., Washington University, 1931; M.D., 1935.
Thomas Joseph Walsh, B.S., University of Richmond, 1946; M.D., Washington University, 1949.

Associate Professors Emeriti (Clinical)

Alfred Goldman, A.B., Washington University, 1916; M.D., 1920; M.S., 1922.
Joseph W. Larimore, A.B., DePauw University, 1908; M.D., Washington University, 1913.
Drew W. Luten, A.B., University of Kentucky, 1901; M.D., Johns Hopkins University, 1911.
William H. Olmsted, B.S., Coe College, 1909; M.D., Johns Hopkins University, 1913.

Assistant Professors

France Alexander, A.B., Indiana University, 1950; M.D., 1953. (Homer G. Phillips Hospital)
Fedor Bachmann, M.D., University of Zurich, 1953. (City Hospital)
Charles M. Baugh (Pharmacology, Dermatology), B.S., University of Chicago, 1953; Ph. D., Tulane University, 1962. (See Department of Pharmacology)
William F. Bridges (United Health Foundations Fellow), B.A., University of the South, 1954; M.D., Washington University, 1959. (See Department of Preventive Medicine and Public Health)
Francis Joseph Catanzaro, M.D., Washington University, 1948. (Cochran Veterans Administration Hospital)
Thomas R. Cate, A.B., Vanderbilt University, 1959; M.D., 1959.
Harry A. Fozzard, M.D., Washington University, 1956. (See Department of Biophysics and Physiology)
Herbert H. Gass (Dermatology), B.S., Washington University, 1928; M.D., 1930.
Lamont W. Gaston, A.B., University of Kansas, 1950; M.D., 1953. (Jewish Hospital)
William I. Green, A.B., Harvard University, 1950; M.D., 1954. (City Hospital)
John O. Hollosy, M.D., Washington University, 1957. (See Department of Preventive Medicine and Public Health)
Manuel E. Kaplan, B.S., University of Arizona, 1950; M.D., Harvard University, 1954. (Jewish Hospital)
Saulo Klahr, M.D., Universidad Nacional de Colombia, 1959. (On leave of absence)
George Kobayashi (Mycology-Dermatology), B.S., University of California, 1952; Ph.D.,
Tulane University, 1963. (See Department of Microbiology)
J. Russell Little, Jr., A.B., Cornell University, 1952; M.D., University of Rochester, 1956. (See Department of Microbiology)
Herbert Lulowitz, A.B., Clark University, 1954; M.D., Washington University, 1958.
James Edward McGuigan, B.S., Seattle University, 1952; M.D., St. Louis University, 1956.
George R. Morrison (Markle Scholar), B.N.S., Holy Cross College, 1946; A.B., University of Rochester, 1948; M.D., 1954. (See Department of Preventive Medicine and Public Health)
C. Kirk Osterland, M.D., University of Manitoba, 1956. (See Department of Preventive Medicine and Public Health)
Robert Paine, M.D., Harvard University, 1944. (St. Luke's Hospital)
Charles Ward Parker, M.D., Washington University, 1953.
James C. Peden, Jr., A.B., Haverford College, 1951; M.D., Washington University, 1955. (See Department of Preventive Medicine and Public Health)
Irwin Schultz, B.A., New York University, 1949; M.D., 1954. (City Hospital)
William S. Sly, M.D., St. Louis University, 1957. (Faculty Associate, American Cancer Society)
Eng M. Tan, A.B., Johns Hopkins University, 1952; M.D., 1956. (See Department of Preventive Medicine and Public Health)
Robert D. Utiger, B.A., Williams College, 1953; M.D., Washington University, 1957. (Markle Fellow)
John D. Vavra, B.A., University of Colorado, 1950; M.D., Washington University, 1954. (See Department of Preventive Medicine and Public Health)
Research Assistant Professors
Virginia Mimmich, B.S., Ohio State University, 1937; M.S., Iowa State College, 1938.
Mary L. Parker, B.S., Florida State University, 1946; M.S., 1949; M.D., Washington University, 1953. (See Department of Pediatrics)
Research Assistant Professor Emeritus
Ann Reubenia Dubach, A.B., Bryn Mawr College, 1919; M.S., University of Colorado, 1935; Ph.D., 1938. (On leave of absence)
Assistant Professors (Clinical)
Grace E. Bergner, A.B., Washington University, 1939; M.D., 1943.
John W. Berry, B.S., University of Toledo, 1943; M.D., St. Louis University, 1946.
Adolph H. Conrad, Jr. (Dermatology), A.B., Washington University, 1934; M.D., 1938.
Truman Guthred Drake, A.B., Washington University, 1929; M.D., 1933.
Charles W. Duden, M.D., Washington University, 1926.
Joseph C. Edwards, A.B., University of Oklahoma, 1930; M.D., Harvard University, 1934.
Bernard Friedman, A.B., University of Wisconsin, 1931; M.D., 1934.
Ralph V. Gieselman, M.D., Washington University, 1947.
Melvin Leonard Goldman, A.B., Washington University, 1939; M.D., 1943.
Paul O. Hagemann, A.B., Washington University, 1930; M.D., 1934.
Lawrence K. Halpern (Dermatology), M.D., University of Colorado, 1937.
Stanley Forrest Hampton, A.B., Washington and Lee University, 1930; M.D., Washington University, 1934.
James Herbert Hutchinson, Jr., B.S. Arkansas A. and M. College, 1942; M.D., University of Arkansas, 1945.
Michael M. Karl, B.S., University of Wisconsin, 1936; M.D., University of Louisville, 1938.
Robert C. Kingsland, A.B., Washington University, 1933; M.D., 1937.
Norman P. Knowlton, Jr., B.S., Harvard University, 1942; M.D., 1945.
Virgil Loeb, Jr., M.D., Washington University, 1944. (See Department of Pathology)
Morris D. Marcus (Dermatology), M.D., Washington University, 1934.
Morris Moore (Mycology) (Dermatology), S.B., Boston University, 1928; A.M., Harvard University, 1929; Ph.D., Washington University, 1933.
J. Roger Nelson, A.B., Washington University, 1949; M.D., 1953. (See Department of Otolaryngology)

James F. Nickel, A.B., University of Oklahoma, 1944; M.D., Washington University, 1948.

Joseph W. Noah, A.B., University of Missouri, 1938; B.S. in Medicine, 1939; M.D., Washington University, 1941.

William David Perry, A.B., Northwest Missouri State College, 1943; B.S. in Medicine, University of Missouri, 1945; M.D., Washington University, 1947.

Harold K. Roberts, B.A., Ohio State University, 1935; M.D., 1939.


Ernest T. Rouse, B.S., Alabama Polytechnic Institute, 1939; M.D., Washington University, 1943.

Llewellyn Sale, Jr., A.B., Yale University, 1936; M.D., Washington University, 1940.

Harold Scheff, M.D., University of Toronto, 1931.

James C. Sisk (Dermatology), A.B., Washington University, 1943; M.D., 1946.

Barrett L. Taussig, A.B., Harvard University, 1928; M.D., Washington University, 1932.

Ray David Williams, A.B., Hampden-Sydney College, 1930; M.S., Emory University, 1931; M.D., Washington University, 1937.

Keith Singleton Wilson, A.B., Williams College, 1930; M.D., Washington University, 1934.

Assistant Professors Emeriti (Clinical)


Harold Aten Bulger, B.S., Ohio State University, 1916; M.D., Harvard University, 1920.

Charles H. Eyermann, M.D., St. Louis University, 1911.

Samuel B. Grant, B.S., Washington University, 1918; M.D., 1920.

Arthur E. Strauss, B.S., Harvard University, 1912; M.D., 1917.

Lawrence D. Thompson, B.S., Rutgers University, 1917; M.D., Cornell University, 1922.

Instructors

Bennie Boonshaft, A.B., Washington University, 1957; M.D., 1961. (Jewish Hospital) (Fellow-Hypertension)

Jacques Bourgoignie, M.D., Catholic University of Louvain (Belgium), 1958. (Cochran Veterans Administration Hospital)

Greta Camell, A.B., University of Wisconsin, 1946; M.D., 1949.


Ray L. Jamison, A.B., University of Iowa, 1955; B.A. (Animal Physiology), Oxford University (England), 1957, as Rhodes Scholar; M.D., Harvard University, 1960. (Jewish Hospital)

William G. Juergens, M.D., Washington University, 1961. (City Hospital)

Stuart A. Kornfeld, A.B., Dartmouth College, 1958; M.D., Washington University, 1962. (Faculty Associate, American Cancer Society)

Philip W. Majerus, M.D., Washington University, 1961. (See Department of Biological Chemistry) (American College of Physicians Scholar; Faculty Associate, American Cancer Society)

Edward J. Miller, B.A., St. John's University, 1958; M.D., St. Louis University, 1962.

Dominic Moore-Jones, M.D., National University of Ireland, 1957. (Cochran Veterans Administration Hospital)

Michael W. Mosesson, B.S., Brooklyn College, 1955; M.D., State University of New York (Downstate), 1959. (also NIAMD Trainee in Enzymology)

G. Charles Oliver, A.B., Harvard University, 1933; M.D., 1957.

Reginald P. Pugh, B.A., University of Michigan, 1953; M.D., 1955. (Ellis Fischel State Cancer Hospital)

Mabel L. Purkerson, A.B., Erskine College, 1951; M.D., Medical College of South Carolina, 1956. (See Department of Pediatrics)

Sorrell S. Reznik (Dermatology), B.A., University of Buffalo, 1957; M.D., Vanderbilt University, 1961.

Gustav Schonfeld, A.B., Washington University, 1956; M.D., 1960. (Cochran Veterans Administration Hospital)
Eduardo Slatopolsky, M.D., University of Buenos Aires, 1959.
Frank U. Steinberg, M.D., University of Berne, 1938. (See Department of Preventive Medicine and Public Health) (Jewish Hospital)
R. Dean Wochner, A.B., Arizona State College, 1956; M.D., Washington University, 1960. (City Hospital)

Research Instructors
Michiyasu Awai, B.S., Osaka College of Technology, 1948; M.D., Okayama University, 1953; Ph.D. in Med. 1959.
Benjamin M. Sahagian (Biochemistry), Ph.D., McGill University, 1963. (Cochran Veterans Administration Hospital)

Instructors (Clinical)
Harry Agress, B.S., Washington University, 1932; M.D., 1932.
Louis F. Aitken, B.S., University of Illinois, 1923; M.D., Washington University, 1927.
Morris Alex, B.S., University of Missouri, 1942; M.D., Washington University, 1943.
James W. Bagley (Dermatology), A.B., University of Missouri, 1930; B.S. in Medicine, 1931; M.D., Washington University, 1933.
Jack Barrow, M.D., Washington University, 1946.
Walter M. Baumgarten, Jr., A.B., Washington University, 1935; M.D., 1939.
Sim F. Benn, A.B., University of Missouri, 1928; M.D., Washington University, 1932.
William C. Boeke, M.D., Washington University, 1923.
Morton A. Binder, B.S., Yale University, 1948; M.D., Columbia University, 1951.
Aaron Birenbaum, M.D., Washington University, 1948.
Benjamin A. Borowsky, M.D., Washington University, 1958.
Edward W. Cannady, A.B., Washington University, 1927; M.D., 1931.
John M. Cary, A.B., Central College, 1954; M.D., St. Louis University, 1958.
Cecil Marvin Charles, A.B., University of Kentucky, 1926; A.M., 1927; Ph.D., Washington University, 1929; M.D., 1933. (See Department of Anatomy)
Margaret Chieff, M.D., University of New Zealand, 1937.
Phillip Comens, B.S. in Medicine, University of Missouri, 1949; M.D., Washington University, 1951.
Ralph Copp, Jr., A.B., Washington University, 1948; M.D., 1952.
Duane E. Cozart, Ph.B., University of Chicago, 1947; A.B., Washington University, 1949; M.D., Medical College of Virginia, 1959.
Arnold Dankner, M.D., Washington University, 1947.
John D. Davidson, A.B., Washington University, 1948; M.D., 1952.
Calvin C. Ellis (Dermatology), A.B., Washington University, 1937; M.D., 1941.
Julius Elson, M.D., Washington University, 1928.
Martin F. Engman, Jr. (Dermatology), M.D., Washington University, 1928.
Mauri Feldaker (Dermatology), A.B., Washington University, 1949; M.D., 1950.
Alfred Fleishman, B.S., Washington University, 1935; M.D., 1935.
Bruce Todd Forsyth, M.D., Washington University, 1947.
Arthur H. Gale, B.S., Washington University, 1955; M.D., University of Missouri, 1959.
Bertrand Y. Glassberg, B.S., Washington University, 1923; M.D., 1925.
Arnold M. Goldman, A.B., Harvard University, 1955; M.D., Washington University, 1959. (On leave of absence)
John M. Grant, A.B., Princeton University, 1950; M.D., Washington University, 1954.

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Neville Grant, A.B., Yale University, 1950; M.D., Columbia University, 1954.
Axel R. Gronau, M.D., University of Naples, 1935.
William K. Hall (Dermatology), B.S., Yale University, 1939; M.D., Harvard University, 1942.
Mark J. Halloran, M.D., Marquette University, 1959.
Lee B. Harrison, A.B., University of Utah, 1925; M.D., Washington University, 1927.
Bernard Hulbert, B.A., University of Wisconsin, 1938; M.D., 1941.
Warren Z. Jacobsohn, M.D., St. Louis University, 1959.
J. Ted Jean, A.B., Indiana University, 1924; M.D., Washington University, 1928.
David N. Kerr, A.B., University of Colorado, 1936; M.D., Washington University, 1941.
Charles Kilo, M.D., Washington University, 1953; M.D., 1958. (See Department of Preventive Medicine and Public Health)
Melvin B. Kirstein, B.S., Indiana University, 1930; M.D., 1933.
Robert E. Koch, A.B., Washington University, 1936; M.D., 1940.
Phillip E. Kerenblat, M.D., University of Arkansas, 1960.
Daniel K. Lane (Dermatology), B.A., Princeton University, 1955; M.D., Washington University, 1959.
Marvin Levin, A.B., Washington University, 1947; M.D., 1951. (See Department of Preventive Medicine and Public Health)
David M. Lieberman, M.D., Vanderbilt University, 1949.
Douglas R. Lilly, A.B., Princeton University, 1952; M.D., Washington University, 1956. (See Department of Radiology)
Warren M. Lonergan, A.B., Westminster College, 1936; M.D., Vanderbilt University, 1940.
Richard W. Maxwell, A.B., Greenville College, 1932; M.D., University of Chicago, 1937.
Oliver A. McKee (Dermatology), L.R.C.P., Royal College of Physicians and Surgeons (Dublin), 1949; S.M., 1949.
Austin F. Montgomery, M.D., University of Pittsburgh, 1954.
Gordon Newton, M.D., University of Arkansas, 1958.
Lamar H. Ochs, A.B., Washington University, 1941; M.D., 1944.
Robert F. Owen, B.A., Princeton University, 1948; M.D., Yale University, 1952.
Kenneth C. Price, M.D., University of Washington, 1951.
Samuel E. Schechter, M.D., Washington University, 1941.
John Wickham Seddon, Ph.B., Yale University, 1931; M.D., Washington University, 1935.
John Blasdel Shapleigh II, M.D., Washington University, 1946.
Burton A. Shatz, A.B., Washington University, 1940; M.D., 1943.
David Miller Skilling, Jr., B.S., Washington and Jefferson College, 1923; M.D., Washington University, 1928.
John Spalding Skinner, M.D., Washington University, 1940.
Milton Smith, B.S., Washington University, 1928; M.D., 1930.
Ross B. Sommer, A.B., Miami University, 1949; M.D., Cornell University, 1949.
Martin F. Stein, M.D., St. Louis University, 1959.
Stanley M. Wald, M.D., Washington University, 1946.
Hugh R. Waters, B.S., Northwestern University, 1942; M.D., Washington University, 1945.
Alvin S. Wenneker, A.B., Washington University, 1949; M.D., 1953.
Herbert C. Wiegand, A.B., Washington University, 1940; M.D., 1943.
Herbert B. Zimmerman, M.D., Washington University, 1951

Instructors Emeriti (Clinical)
William G. Coleman (Dermatology), B.S., Washington University, 1917; M.D., 1919.
Anthony B. Day, B.S., Harvard University, 1913; M.D., Washington University, 1919.
Harry W. Wiese, B.S., Washington University, 1920; M.D., 1922.

Assistant
Jennifer Dorothy Ashby (Dermatology), M.B., B.S., London University, 1962.

Research Assistants
Mary Howard Anderson.
Margaret Williams Erlander, B.A., University of Iowa, 1932; M.S., 1938. (Cochran Veterans Administration Hospital)
Mary Chapman Johnson, A.B., Washington University, 1938.
Ida Kozak Mariz, A.B., Washington University, 1940.
Bruce M. McAllister (Dermatology), B.S., University of Oregon, 1959; M.S., 1962.
Betty F. Perry, A.B., Washington University, 1945. (Cochran Veterans Administration Hospital)
Doris Thompson, B.S., Mississippi State University, 1942.
Ee Thye Yin, Inter.B.Sc., University of London, 1954. (Jewish Hospital)
Anicee A. Yunce, B.A., American University of Beirut, 1948; M.S., Wayne State University, 1958. (Cochran Veterans Administration Hospital)

Assistants (Clinical)
Lawrence White Moore, Jr. (Dermatology), B.A., Virginia Polytechnic Institute, 1959; M.D., Duke University, 1963.
John E. Mullins, M.D., Washington University, 1958.
John S. Schoentag (Dermatology), A.B., University of Missouri, 1956; M.D., Washington University, 1960.

SECOND YEAR

CONJOINT MEDICINE

The several courses given by the clinical departments during the sophomore year have been placed under the supervision of a Committee on Conjoint Medicine in order that teaching might be co-ordinated effectively. Even though individual courses are listed in the catalogue under departmental headings, representatives of several departments participate in the presentation of material. For instance, clinical diagnosis (see
under Medicine) is taught jointly by the Departments of Medicine, Psychiatry and Neurology, Obstetrics and Gynecology, Ophthalmology, Otolaryngology, Pediatrics, and Surgery. The number of hours allotted to each department in the conjoint courses is included in the listing of courses under the respective departmental headings. The following courses are included in this arrangement:

Medicine: Clinical Diagnosis
Applied Pathologic Physiology
Laboratory Methods of Diagnosis
Psychiatry and Neurology: Introductory Course on the Patient-Physician Relationship; Neurological Examination in Clinical Diagnosis
Obstetrics and Gynecology: Introduction to Obstetrics
Ophthalmology: Introduction to Ophthalmology
Otolaryngology and Clinical Diagnosis
Pediatrics: Introduction to Pediatrics
Surgery: Introduction to Surgery


(a) Pathologic Physiology. Observation and interpretation of the symptoms and signs of disease, with special reference to pathologic physiology. Part of Conjoint Medicine. 30 hours.

(b) Clinical Diagnosis. Lectures, demonstrations, and practical exercises in the technique of clinical diagnosis. Part of Conjoint Medicine. 144 hours.

(c) Laboratory Methods of Diagnosis. Lectures and laboratory course in microscopic, bacteriological, serological, and chemical methods of diagnosis. Part of Conjoint Medicine. 144 hours.

(d) Parasitology. Lectures, demonstrations, and laboratory exercises. 36 hours.

Third Year

30. General Medicine. Supervised Study of Patients on the Semi-Private Medical Service of the Barnes Hospital and the Jewish Hospital, and on the Wards of St. Louis City Hospital and the Veterans Administration Hospital. Students are assigned in rotation as clinical clerks to the patients admitted to these services. Teaching exercises include ward rounds, clinics, and afternoon work in the wards and laboratories. Students serve for six weeks on each of the two services. 384 hours.

31. Clinical Pathological Conference. 36 hours. (See under Fourth Year—Medicine 42.)

32. Medical Clinics. 36 hours. (See under Fourth Year—Medicine 41.)
FOURTH YEAR

40. Medicine.

(a) Clinical Clerkship in Hospital Wards. For six weeks the entire day is spent in the medical wards at Barnes Hospital. Patients are assigned for complete study and are followed throughout their stay in the hospital. Cases are presented by the students before the attending physician at ward rounds on the General Medical Wards three times a week, and on the Neurology Service once a week. Special therapeutic conferences are held three times a week with the Medical Resident. The students also attend weekly Staff Rounds, X-ray conferences, and Clinicopathological conferences. 196 hours.

(Drs. Moore, Sherry, Daughaday, and Staff)

(b) Clinical Clerkship in Washington University Clinics. Part of Co-ordinated Clerkship in Outpatient Medicine under supervision of Department of Preventive Medicine. Students act as clinic physicians for twelve weeks under the supervision of consultants from the Department of Medicine in the following outpatient clinics:

General Medical Clinics (Medicine A and B). Three mornings a week for six weeks and two mornings a week for six weeks. 90 hours.

(Drs. Shank, V. Jager, Vavra, and Staff)

Dermatology Clinic. One afternoon a week for twelve weeks. 36 hours.

(Drs. Demis, Lane, and Staff)

41. Medical Clinics. Cases which have been studied by students working in the wards of the Barnes Hospital are presented before the third- and fourth-year classes to illustrate medical problems of particular interest. One hour a week throughout the year. 36 hours.

(Dr. Moore and Staff)

42. Clinical Pathological Conferences. Abstracts of the clinical records of patients upon whom post-mortem examinations have been performed are presented in advance to members of the third- and fourth-year classes and to members of the medical staff. At each conference the diagnosis is discussed in detail by the clinical staff before the anatomical findings are presented by the pathologists. 36 hours.

(Dr. Reinhard and Medical Staff; Pathology Staff)

ELECTIVE COURSES

50. Student Internship, Washington University Service of the St. Louis City Hospital. Two senior students. Six or twelve weeks. Students will serve as interns on the Unit I Medical Service.

(Drs. Perkoff, Hutchinson, and Staff)

51. Student Internship, Medical Service of the Jewish Hospital. Two students. Six or twelve weeks. Students will serve as substitute interns on the Ward Service. Time will be provided for attendance at Medical School conferences.

(Dr. Wessler and Staff)
52. Dermatology. Three students. Afternoons or all day for six or twelve weeks. Work in clinic (afternoons); attendance at ward rounds and conferences. Individual training in clinical and laboratory examinations pertinent to cutaneous disease.

(Drs. Demis, Kobayashi, Gass)

53. Medical Specialty Clinics. Four students. Afternoons, six weeks. Gastrointestinal (Monday), Allergy (Tuesday), Arthritic or Rheumatic (Wednesday), and Endocrine (Thursday).

(Drs. Daughaday, Osterland, Hampton, E. Brown, Peterson)

Work in other medical specialty clinics, including cardiovascular (cardiac, hypertension, peripheral vascular), chest, endocrine (a.m.), hematology, and liver may be arranged individually with the physician in charge of each clinic.

54. Metabolic Diseases. Two students. All day for six weeks. Rounds with metabolism consultant on the wards of the Barnes Hospital and attendance at Diabetic and Endocrine Clinics in the Washington University Clinics. Training in special diagnostic tests applicable to the study of metabolic and endocrine diseases.

(Drs. Daughaday, Kipnis)

55. Infectious Diseases. Two students. Six or twelve weeks. Study of infectious diseases both from clinical and basic points of view. Participation in rounds, conferences, and seminars.

(Drs. Harford, King, Cate)

56. Hematology. One or two senior students may be accepted each trimester for special work in the Hematology Laboratory. Time is divided between study of patients with hematologic dyscrasias and training in special diagnostic procedure.

(Drs. E. Brown, Vavra, E. Reinhard, C. Moore)

57. Cardiology. Seven students. All day for six weeks. The elective course in cardiovascular disease is offered every six weeks of each trimester. The course includes intensive training in the diagnosis and treatment of cardiovascular disorders, demonstrations in cardiovascular physiology, and instruction in electrocardiographic and roentgenographic diagnosis. The clinical instruction is carried out at the Homer G. Phillips Hospital and is supplemented by conferences and round table discussions.

(Drs. J. Smith, B. Parker, and Staff)

58. (a) Senior Elective in Medicine at St. Luke’s Hospital. These externships offer six weeks of intensive clinical experience with the duties and responsibilities of interns working closely with interns and residents. They emphasize bedside experience and are regulated to permit full participation in the hospital curriculum of seminars, discussions, clinical-physiological and clinical-pathological conferences.  (Dr. R. Paine)

58. (b) Cardiology Elective at St. Luke’s Hospital. A six-week elective in cardiology will be offered for senior students each three months of the academic year beginning in June of 1966. Students will participate daily in the activities of the electro-
cardiographic, vectorcardiographic laboratory, the Radiology Department, and the Intensive Cardiac Care Unit. The elective is offered for two students and is designed to provide experience in depth in the current concepts and methods of diagnosis and treatment of cardiovascular disorders. (Dr. R. Paine)

59. Pulmonary Diseases. One or two senior students may be accepted for special training in technics applied to study of pulmonary function and disease. (Dr. Danforth and Staff)

60. Research. Interested senior students are encouraged to participate in the clinical and laboratory research programs of the Department of Medicine. Each applicant should arrange his schedule so that he can devote at least twelve consecutive weeks to his research elective. Positions available will include the following:

Cardiovascular Disease—Drs. J. Smith, B. Parker, W. Danforth, H. Fozzard
Clinical Investigation—Drs. S. Sherry, A. Fletcher
Dermatology—Dr. Demis
Diseases of Muscle—Dr. Perkoff
Enzymology—Drs. Sherry, A. Fletcher, N. Fletcher
Gastroenterology—Drs. M. Peterson, Aach
Hematology—Drs. Brown, Chaplin, C. Moore, Reinhard, Vavra, Kaplan, Peden, Kornfeld, Majerus
Hypertension—Dr. H. M. Perry
Immunology—Drs. C. Parker, V. Jager
Infectious Diseases—Drs. Harford, King, Cate, I. Schultz
Malignant Disease—Drs. Loeb, Reinhard
Medical Genetics—Dr. Sly
Metabolic Disease—Drs. Daughaday, Eisenstein, Kipnis, Utiger, Green
Nutrition—Drs. Shank, Eisenstein, Bridgers, G. Morrison
Peripheral Vascular Disease—Drs. Wessler, Gaston
Psychosomatic Disease—Dr. Guze
Renal Disease—Drs. Bricker, Klahr, Lubowitz, Slatopolsky

Arrangements for these research electives should be made directly with the faculty member with whom the student wishes to work.
DEPARTMENT OF MICROBIOLOGY

Professor and Head of Department
Herman Nathaniel Eisen, A.B., New York University, 1939; M.D., 1943.

Professor

Associate Professor Emeritus
Hiromu Tsuchiya (Parasitology), A.B., University of Missouri, 1913; Sc.D., Johns Hopkins University, 1930. (See Department of Medicine)

Assistant Professors
David Apirion, M.S., Hebrew University of Jerusalem, 1960; Ph.D., University of Glasgow, 1963.
Julian B. Fleischman, B.S., Yale University, 1955; Ph.D., Harvard University, 1960. (See Department of Preventive Medicine and Public Health)
David Epperson Kennell, A.B., University of California, 1955; Ph.D., 1959.
SECOND YEAR

20 (531). Microbiology. Lectures and laboratory. This course will present the basic principles relating to the metabolism, growth, and reproduction of microorganisms and to the immune responses of the host to pathogenic microorganisms and their metabolic products. The organization of the course is as follows: pure culture methodology, biochemical mechanisms of nutrition and intermediary metabolism, physiology of growth, fundamental genetics (with special emphasis on microbial aspects), immunology. In terms of the above concepts, specific groups of pathogenic organisms and viruses will then be considered. The interaction between host and parasite will be studied by analyzing the biochemical basis for the pathogenicity of the microbe and for the immune reaction of man. The factors which make microorganisms vulnerable or resistant to chemotherapeutic agents will also be examined. 216 hours.
DEPARTMENT OF NEUROLOGY

Neurology concerns itself with the diseases of brain, spinal cord, and peripheral nerves. Instruction is provided in all years, commencing in the first year with a series of case demonstrations designed to acquaint the freshman student with the applicability of anatomical and physiological knowledge of the nervous system to the localization of neurological lesions. In the second year the neurological part of physical diagnosis is covered by lectures and exercises, and lectures in patho-physiology cover major principles of neurology as exemplified in the spheres of motion and of sensation. Third- and fourth-year activities center upon in- and out-patient clerkship studies in clinics and upon the wards. Electroencephalography and clinical clerkships are available as a fourth-year elective, and there are other opportunities for investigation of nervous system functioning in every aspect.
Professor and Head of Department
James Lee O'Leary, B.S., University of Chicago, 1925; Ph.D., 1928; M.D., 1931.

Professor

Professor Emeritus and Lecturer
George Holman Bishop (Neurophysiology), A.B., University of Michigan, 1912; Ph.D., University of Wisconsin, 1920.

Associate Professor
Sven G. Eliasson, Ph.D., University of Lund, 1942; M.D., 1954.

Associate Professor Emeritus
Ethel Ronzoni Bishop (Biochemistry), B.S., Mills College, 1913; A.M., Columbia University, 1914; Ph.D., University of Wisconsin, 1922.

Associate Professors (Clinical)
Irwin Levy, A.B., Cornell University, 1927; M.D., St. Louis University, 1931; D.M.S., Columbia University, 1935.

Associate Professor Emeritus (Clinical)
Andrew B. Jones, M.D., Vanderbilt University, 1916.

Assistant Professors
Lawrence A. Cohen, B.S., Western Reserve University, 1948; M.D., 1954; M.A., Northwestern University, 1951.
William B. Hardin, B.A., Rice University, 1953; M.D., University of Texas, 1957.

Research Assistant Professor
Margaret H. Clare (Neurophysiology), B.S. in Ed., Southeast Missouri State Teachers College, 1940; M.A., Washington University, 1951.

Assistant Professors (Clinical)
Andrew J. Gay, B.S., University of Alabama, 1950; M.A., 1954; M.D., Medical College of Alabama, 1955. (See Department of Ophthalmology)
Joseph J. Gitt, M.D., Washington University, 1930.

Assistant Professor Emeritus (Clinical)
Archie D. Carr, B.S., Washington University, 1918; M.D., 1921.

Instructor

Instructors (Clinical)
Robert J. Mueller, M.D., Washington University, 1936; M.S., University of Michigan, 1942.
Earl R. Schultz, A.B., Southeast Missouri State College, 1952; B.S. in Medicine, University of Missouri, 1953; M.D., Washington University, 1955. (See Department of Psychiatry)

Research Assistants
Jeanne Marie Smith, A.B., Collegio Franco-Brasileiro (Brazil), 1948.
First Year

10. Integrative Neurology (Given as part of Anatomy 11). A series of four clinics is held in the second semester to acquaint students of neuroanatomy and neurophysiology with the applicability of these subjects in localizing lesions of the central and peripheral nervous system. The series commences with spinal and cranial nerve deficits and proceeds systematically through spinal cord, brain stem, basal ganglia, cerebellum and cerebral cortex, utilizing currently available cases from the neurological and neurosurgical services. (Dr. O'Leary and Staff)

Second Year

20. Neurology. Neurological Examination in Clinical Diagnosis. (Part of Conjoint Medicine. See page 64.) Lectures, demonstrations, and exercises in the neurological examination of the patient. 6 hours. (Dr. Landau in conjunction with Staff)

Third Year

30. Neurology. A full-time, three-week, in-patient clerkship is provided on the ward and private services at Barnes Hospital. Patients are assigned to students, who follow them with the resident staff and discuss them regularly in conference with the senior staff. (Dr. O'Leary and Staff)

Fourth Year

40. Neurology. Formal teaching is confined to six half-day assignments in the Out-Patient Clinic, where the student has the opportunity to participate in the diagnosis, study, and treatment of common neurologic conditions in adults and children. (Dr. O'Leary and Staff)

Elective Courses

51. Research in Neurology. Facilities are available for qualified students to undertake original research in the laboratories of the department or in the clinics or wards. (Drs. O'Leary, Landau, Eliasson, and Staff)

52. Staff Conferences. Students are invited to attend the weekly Neurological-Neurosurgical-Neuropathological Conference. This meeting is held on Wednesday afternoons in the Pathology and Clopton Auditoriums, except the fourth Wednesday of the month, at City Hospital.

53. Externships. Barnes Hospital private neurology service, City Hospital neurology service, Children's Hospital neurology service, clinics, conferences, and EEG. Full time three to twelve weeks by specific arrangement. (Dr. Landau)
DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

The Department of Obstetrics and Gynecology is divided for convenience of administration, teaching, and research into divisions under the following directors:

Gynecological Cancer .................................................. Dr. Sherman
Gynecological Endocrinology ................................. Dr. Woolf
Ob.-Gyn. Service at Max Starkloff Hospital ......... Dr. Esslinger
Ob.-Gyn. Service at Homer G. Phillips Hospital ... Dr. Monat

Students are given practical instruction in obstetrics and gynecology in the St. Louis Maternity Hospital, the Barnes Hospital, the Washington University Clinics, and also at the St. Louis City and Homer G. Phillips Hospitals. There are approximately 6,000 confinements annually which are available for the teaching of obstetrics on the ward.
services of the St. Louis Maternity, the St. Louis City, and the Homer G. Phillips Hospitals. Instruction in the care of ambulatory obstetrical and gynecological patients is carried out in the University Clinics, where about 1800 new patients are seen and about 20,000 follow-up visits are made annually. Instruction in gynecology is given in the University Clinics and on the wards of the St. Louis Maternity, the Barnes, and the Barnard Hospitals. There are approximately 2,000 admissions annually to the gynecological service, of which about one-fifth have malignant disease.

**Professor and Head of the Department**
Willard Myron Allen, B.S., Hobart College, 1926; M.S., University of Rochester, 1929; M.D., 1932; Sc.D. (hon.), 1957; Sc.D. (hon.) Hobart College, 1940.

**Professors**
Arpad I. Csapo, M.D., University of Szeged (Hungary), 1941.
Alfred I. Sherman, M.D., University of Toronto, 1944. (See Department of Radiology)

**Professors (Clinical)**
A. Norman Arneson, B.S., Texas Christian University, 1924; M.D., Washington University, 1928. (See Department of Radiology)
John E. Hobbs, A.B., Southwest Missouri State Teachers College, 1923; M.D., Washington University, 1927.
Melvin A. Roblee, B.S., Washington University, 1923; M.D., 1925.
Samuel D. Soule, M.D., Washington University, 1923.

**Professor Emeritus (Clinical)**
Grandison D. Royston, M.D., Washington University, 1907.

**Associate Professors**
Walter Gibson West (Biochemistry), A.B., Brigham Young University, 1948; Ph.D., University of Wisconsin, 1952. (See Department of Biological Chemistry)
Ralph B. Woolf, B.S., Massachusetts Institute of Technology, 1935; M.D., University of Rochester, 1939.

**Associate Professor (Clinical)**
William H. Masters, B.S., Hamilton College, 1938; M.D., University of Rochester, 1943.

**Associate Professor Emeritus (Clinical)**
F. P. McNalley, B.S., Washington University, 1915; M.D., 1917.

**Assistant Professor**
Ernst R. Friedrich, M.D., University of Heidelberg, 1954.

**Assistant Professors (Clinical)**
H. Marvin Camel, M.D., Creighton University, 1950.
Arthur T. Easling, M.D., Washington University, 1940.
Charles R. Gulick, A.B., Central College, 1940; M.D., St. Louis University, 1943.
Herman Hutto, A.B., University of Alabama, 1932; M.D., Washington University, 1935.
Frank B. Long, Jr., M.D., Washington University, 1947.
Laurence E. Maze, M.D., Washington University, 1948.
Milton H. Meyerhardt, A.B., University of Missouri, 1925; M.D., St. Louis Univ. 1927.
James Pennoyer, B.S., Hobart College, 1933; M.D., University of Rochester, 1939.
David Rothman, B.S., Washington University, 1935; M.D., 1935.
Willard C. Scrivner, B.S., Washington University, 1926; M.D., 1930.
William L. Smiley, A.B., Ohio State University, 1933; M.D., 1937.
Helman C. Wasserman, A.B., Johns Hopkins University, 1928; M.D., Washington University, 1932.
Carol F. Williams, B.A., University of Tennessee, 1953; M.D., 1955.
Seth E. Wissner, A.B., Washington University, 1942; M.D., 1945.
George J. L. Wulff, Jr., A.B., Washington University, 1929; M.D., 1933.

Assistant Professor Emeritus (Clinical)
Kevin Charles Morrin, M.B., B.Ch., National University of Ireland, 1921.

Instructors (Clinical)
Hubert L. Allen, A.B., University of Kansas, 1932; M.D., Tulane University, 1936.
Bryce H. Bondurant, A.B., Northeast Missouri State Teachers College, 1936; D.O., Kirksville College of Osteopathy and Surgery, 1940; M.D., Washington University, 1943.
S. Michael Freiman, A.B., Montana State University, 1951; M.D., Washington University, 1955.
Ira Clyde Gall, B.S., University of Cincinnati, 1948; M.D., 1951.
Justin F. Kramer, M.D., University of Michigan, 1949.
Paul F. Max, B.S., Washington University, 1932; M.D., 1932.
Frank Andrew Morrison, B.S., University of Nebraska, 1935; M.D., 1936.
John B. O'Neil, B.S., St. Louis University, 1925; M.D., 1927.
Harry E. Raybuck, Jr., A.B., Westminster College, 1949; M.S., St. Louis University, 1951; Ph.D., 1953; M.D., Medical College of Georgia, 1959.
Marvin Rennard, A.B., Washington University, 1947; M.D., 1952; B.S., University of Missouri, 1950; M.S., 1950.
Melvin M. Schwartz, A.B., University of Nebraska, 1945; M.D., 1947.
Frances Helen Stewart, M.D., Washington University, 1927.
Alva C. Trueblood, Jr., A.B., Washington University, 1940; M.D., 1943.
J. Leslie Walker, B.A., Vanderbilt University, 1957; M.D., University of Tennessee, 1960. (On leave of absence)
Sol Weisman, A.B., Washington University, 1928; M.D., 1932.
Mitchell Yanow, M.D., Washington University, 1941.

Instructor Emeritus (Clinical)
Grover Bernard Liese, A.B., Real-Gymnasium, Cassel, Germany, 1910; M.D., University of Heidelberg (Germany), 1918.

Assistants (Clinical)
Peter Bartsch, M.D., Johann Wolfgang Goethe University, 1952.
Joe E. Belew, A.B., Central College, 1953; M.D., St. Louis University, 1957.
Phillip Jan Goldstein, A.B., Washington University, 1956; M.D., St. Louis University, 1960. (On leave of absence)
Gerald Newport, A.B., Washington University, 1948; M.D., 1953.
Alexander Max Roter, A.B., University of Illinois, 1948; M.D., 1951.
James Sawyer, A.B., Ohio State University, 1949; M.D., 1951.
THIRD YEAR

30. Clinical Clerkship. Students spend six weeks on the obstetrical and gynecological wards of the St. Louis Maternity, Barnes, and Barnard Hospitals, where they become an integral part of the organization studying cases in detail and assisting at operations and deliveries. During this period they are also given instruction in abdominal palpation, pelvic examination, and measurement of the pelvis. Numerous informal lectures are given by various members of the attending staff.

Students attend a series of lectures (eight noonday lectures) covering the subject of gynecological cancer. During their clerkship they meet for one hour a week for rounds or discussion of their gynecological cancer patients. Students are expected to attend all surgical procedures performed on their patients.

FOURTH YEAR

40. Co-ordinated Outpatient Clerkship. During this period of twelve weeks students divide their time between various outpatient departments. New obstetrical and gynecological patients in the clinics are examined by the students and the diagnosis and treatment discussed by members of the attending staff. (Dr. Woolf and Staff)

41. Obstetrical Service. One-twelfth of the class spends three weeks on obstetrical call. Some students work at the St. Louis Maternity Hospital and others at the St. Louis City and Homer G. Phillips Hospitals. During this period normal multiparous patients are delivered by the students under the supervision of the house staff.

ELECTIVE COURSES

50. Gynecological Pathology. Two students at a time may serve as assistants in the laboratory. Six weeks, full time, all trimesters. (Dr. Kempson)

51. University Clinics. Three students at a time may serve as clinical clerks, all day for six weeks.

52. Obstetrical Services. One or two students may serve as clinical clerks, living in the hospital for six weeks.
53. *Maternal Health.* All students are urged to attend the Planned Parenthood Clinic, where practical instruction is given in the practical aspects of family planning. This course is given in the evening at the local offices of the Planned Parenthood Association.

54. *Senior Elective in Obstetrics at St. Luke’s or Jewish Hospital.* These externships offer six weeks of intensive clinical experience, with the duties and responsibilities of interns, working closely with interns and residents. While these externships emphasize bedside experience, they are so regulated as to permit full participation in the hospital curriculum of seminars, discussions, clinical-physiological and clinical-pathological conferences.
Measuring intraocular pressure in the Eye Clinic.

DEPARTMENT OF OPHTHALMOLOGY

The instruction in the Department of Ophthalmology begins in the second year with methods of examination of the eye. Emphasis is placed on the use of the ophthalmoscope in the first three-hour session. Three additional two-hour sessions are devoted to other methods of examination. During the junior year a series of seven didactic lectures is given as an introduction to various aspects of ocular disease. During the fourth year students are assigned to an ophthalmology clerkship for one week. This affords opportunity for work with patients under supervision.

Professor and Head of the Department
Bernard Becker, A.B., Princeton University, 1941; M.D., Harvard University, 1944.

Professor Emeritus (Clinical)
Martin Hayward Post, A.B., Amherst College, 1908; M.D., Johns Hopkins University, 1912.

Associate Professors
Marguerite A. Constant (Biochemistry), B.S., George Washington University, 1947; Ph.D., University of Wisconsin, 1951.

Robert A. Moses, A.B., Johns Hopkins University; M.D., University of Maryland School of Medicine, 1942.
Research Associate Professors
Adolph I. Cohen, B.S., City College of New York, 1948; M.A., Columbia University, 1950; Ph.D., 1954. (See Department of Anatomy)
Jay M. Enoch, B.S., Columbia University, 1950; Ph.D., Ohio State University, 1956.

Associate Professors (Clinical)
Howard Rommel Hildreth, M.D., Washington University, 1928.
Theodore Eugene Sanders, B.S., University of Nebraska, 1931; M.D., 1933.

Associate Professors Emeriti (Clinical)
Bennett Young Alvis, B.S., St. Louis University, 1916; M.D., 1918.
Frederick Oscar Schwartz, M.D., Washington University, 1910.

Assistant Professor

Assistant Professors (Clinical)
Edmund B. Alvis, M.D., Washington University, 1934.
Andrew J. Gay, B.S., University of Alabama, 1950; M.A., 1954; M.D., Medical College of Alabama, 1955. (See Department of Neurology)
Adolph Charles Lange, B.S., Washington University, 1928; M.D., 1930.
Benjamin Mildor, M.D., Washington University, 1939.
Edward Okun, M.D., University of Vermont, 1956.
Harry David Rosenbaum, M.D., Washington University, 1934.

Instructors
Edward Cotlier (National Institute of Neurological Diseases and Blindness Special Fellow), B.S., Colegio Nacional, 1954; M.D., Universidad del Litoral, 1959.

Matthew Newman (National Institute of Neurological Diseases and Blindness Special Fellow), A.B., Vanderbilt University, 1956; M.D., Columbia University College of Physicians and Surgeons, 1959.
Steven M. Podors (National Institute of Neurological Diseases and Blindness Special Fellow) A.B., Princeton University, 1958; M.D., Harvard University, 1963.
Morton Smith, B.S., University of Maryland, 1956; M.D., 1960.

Instructors (Clinical)
Daniel Bisno, B.A., University of Wisconsin, 1927; M.D., Johns Hopkins University, 1931.
James Howard Bryan, A.B., Washington University, 1932; M.D., 1936.
Samuel A. Canaan, Jr., A.B., State University of Iowa, 1942; M.D., Meharry Medical College, 1954.
Ruth Schreiber Freedman, A.B., Washington University, 1938; M.D., 1942.
David Merrill Freeman, A.B., University of Missouri, 1940; B.S. in Medicine, 1941; M.D., Washington University, 1943.
S. Albert Hanser, B.S., St. Louis University, 1933; M.D., 1937.
Jack Hartstein, B.S., University of Missouri, 1953; M.D., University of Cincinnati, 1955.
Jack Kayes, B.A., Yale University, 1953; M.D., Washington University, 1957.
Lawrence T. Post, Jr., M.D., Washington University, 1948.
Maxwell Rachlin, M.D., University of Ontario, 1942.
Mickey L. Salmon, M.D., Louisiana State University, 1959.
Philip T. Shahan, A.B., Harvard University, 1938; M.D., Washington University, 1942.
Bernd Silver, B.S., University of Louisville, 1952; M.D., 1956.
OPHTHALMOLOGY

Arthur W. Stickle, Jr., M.D., University of Oklahoma, 1943.
Howard P. Venable, B.S., Wayne State University, 1935; M.D., 1940.
Charles E. Windsor, A.B., Carleton College, 1956; M.D., University of Rochester, 1960.

Research Instructors
Waller J. Grodzki, D.D.S., St. Louis University, 1944.

Assistants
William A. Moor, A.B., Washington University, 1934.
J. Louis Stevenson.

Research Assistants
(Also NINDB Fellow)
Helen M. Smith, R.N., Aultman Hospital School of Nursing, Western Reserve University, 1939; B.A., Washington University, 1950; M.A., 1953.

SECOND YEAR
20. Ophthalmology. Lectures and demonstrations are given as a part of the course in Conjoint Medicine as well as additional lectures.
   (Drs. Moses, Drews, Oglesby, Smith, and Resident Staff)

THIRD YEAR
30. Ophthalmology. Six didactic lectures are given in the third trimester to the entire class. (Drs. Moses, Kolker, Podos, Gay, Silver, Windsor, and Resident Staff)

FOURTH YEAR
40. Clinical Ophthalmology. Practical instruction in diagnosis and treatment of eye diseases is given to small sections of the class. One week.
   (Drs. Becker, Sanders, Post, Drews, Okun, Kolker, and Resident Staff)
DEPARTMENT OF OTOLARYNGOLOGY

Otolaryngology is presented to the students during the sophomore, junior, and senior years. In the sophomore year the importance of careful examination of the ear, nose, and throat is emphasized, and the students are taught the use of instruments peculiar to the specialty. In the junior year lectures are given which are intended to supplement the information obtainable in textbooks. In the senior year the student examines patients in the outpatient clinics. Those students who have a particular interest in the specialty are accepted for an elective period during their senior year.

Lindburg Professor and Head of Department

Joseph H. Ogura, A.B., University of California, 1937; M.D., 1941.

Professors

Walter Page Covell, B.S., Oregon State College, 1921; M.S., 1923; Ph.D., University of Minnesota, 1926; M.D., University of Chicago, 1933. (See Department of Anatomy)
Sol Richard Silverman (Audiology), A.B., Cornell University, 1933; M.S., Washington University, 1938; Ph.D., 1942.


Research Professors
Donald H. Eldredge, S.B., Harvard University, 1943; M.D., 1946.
Ira J. Hirsh (Audiology), A.B., New York State College for Teachers (Albany), 1942; M.A., Northwestern University, 1943; M.A., Harvard University, 1947; Ph.D., 1948.
Catherine A. Smith, A.B., Washington University, 1935; M.S., 1948; Ph.D. 1951.

Research Professor Emeritus and Lecturer
Hallowell Davis (Research), A.B., Harvard University, 1918; M.D., 1922. (See Department of Physiology)

Associate Professor

Associate Professor (Clinical)

Assistant Professors
Robert Goldstein (Audiology), B.S., Pennsylvania State University, 1948; Ph.D., Washington University, 1952.
Masashi Kawasaki, B.A., University of Western Ontario, 1953; M.D., 1957.
Ruediger Thalmann (Audiology), University of Graz, 1950; M.D., University of Vienna, 1954.

Research Assistant Professor
Jean G. Swartz, B.S., Madison College, 1951; M.S., Virginia Polytechnic Institute, 1957; Ph.D., University of Colorado, 1963.

Assistant Professors (Clinical)
William T. K. Bryan, A.B., Washington University, 1929; M.D., 1933.

Alfred J. Cone, B.S., State University of Iowa, 1921; M.D., 1923; M.S., 1927.
Harold M. Cutler, A.B., University of Maine, 1930; M.D., Tufts College, 1937.
Morris Davidson, B.S., Indiana University, 1936; M.D., 1938.
L. Wallace Dean, Jr., B.S., Yale University, 1930; M.D., Washington University, 1933.
Guerdan Hardy, M.D., Washington University, 1929.
Daniel D. Klafl, B.S., University of Virginia, 1933; M.D., 1936.
Edward H. Lyman, B.S., Washington University, 1937; M.D, 1937.
Herbert M. Smit, M.D., St. Louis University, 1933.
Robert E. Votaw, B.S., State University of Iowa, 1927; M.D., 1929.
Joseph Warren West, M.D., Duke University, 1944.

Assistant Professor Emeritus (Clinical)
Harry N. Glick, A.B., Cornell University, 1916; M.D., St. Louis University, 1922.

Lecturer
Oren L. Brown (Voice Therapy), M.A., Boston University, 1946.

Instructor
Floyd R. Barnhill, M.D., University of Tennessee, 1961.

Research Instructor
Marian Pfingsten Bryan, A.B., Washington University, 1931.

Instructors (Clinical)
Benard Adler, B.S., Washington University, 1937; M.D., 1937.
A. Chesterfield Stutsman, B.S., Roanoke College, 1927; M.D., University of Virginia, 1931.
Wayne A. Viers, B.S., Phillips University, 1952; M.D., University of Oklahoma, 1956.

Research Assistants
Charles Carr.
SECOND YEAR

20. Otolaryngology and Physical Diagnosis. The class is divided into small groups with individual instructors for a total of six hours for instruction in the methods of otolaryngological diagnosis and use of the instruments peculiar to this field. (Part of Conjoint Medicine. See page 64.)

THIRD YEAR

30. Otolaryngology. Five lectures are given in the third trimester to the entire class. (Drs. Stroud, Walsh, Ogura)

FOURTH YEAR

40. Otolaryngology. Practical instruction in diagnosis and treatment is given to one-fourth of the class. Two weeks. (Drs. Votaw, West, Cutler, Davidson, Cone, Lyman)

ELECTIVE COURSE

50. Clerkship in Otolaryngology. Two students may serve as externs in the clinics for six weeks. Permission of the Head of the Department is necessary before registration for this elective. Full time. (Dr. Walsh and Staff)
DEPARTMENT OF PATHOLOGY

Pathology for medical students is given during the second, third, and fourth years. In the second year the course covers General and Special Pathology, and in the third and fourth years the students attend the Clinical and Pathological Conferences conducted in collaboration with the Clinical Departments.

Properly qualified students may register in the School of Medicine or Graduate School of Arts and Sciences for any of the courses. Pathology 501 is a prerequisite for all other courses.

The staff in pathology of several hospitals in and about St. Louis are members of the faculty of the department: Missouri Baptist Hospital, Dr. W. Platt; DePaul Hospital, Dr. J. Bauer; St. Louis City Hospital, Dr. V. Bleisch, Lutheran Hospital, Dr. L. Yuan; Alton Memorial Hospital, Dr. P. Capurro; Jewish Hospital, Drs. J. Hasson, D. Rosen-
stein, H. Silver; St. Luke's Hospital, Drs. R. Ogilvie, F. Kraus; Homer G. Phillips Hospital, Drs. U. Schafford, M. Menendez, T. Nishi; State Hospital, Dr. K. Palmer.

For the purposes of both teaching and research, the Department of Pathology is divided into specialties under the following directors:

- **Diseases of Bone and Joint** Dr. R. Silberberg
- **Hematopoietic Pathology** Dr. Sorenson
- **Clinical Pathology** Dr. V. Loeb, Jr.
- **Dentistry** Dr. Rowe
- **Hepatic Pathology** Dr. Grisham
- **Infectious Diseases** Dr. M. G. Smith
- **Pathology of Thyroid** Dr. W. Bauer
- **Dermatopathology** Dr. McGavran
- **Neuropathology** Dr. Luse
- **Pathological Microchemistry** Dr. J. Kissane
- **Pathology of the Endocrines** Dr. Lacy
- **Surgical Pathology** Dr. Ackerman
- **Diseases of Lymphoid Tissue** Drs. Dorfman and Kempson
- **Lipid Chemistry** Dr. Williamson

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**Edward Mallinckrodt Professor and Head of Department**

Paul E. Lacy, B.A., Ohio State University, 1945; M.D., 1948; M.Sc., 1948; Ph.D., University of Minnesota, 1955.

**Professors**

- Lauren V. Ackerman (Pathology and Surgical Pathology), A.B., Hamilton College, 1927; M.D., University of Rochester, 1932.
- Sarah A. Luse, A.B., Rockford College, 1940; M.D., Western Reserve University, 1949. (See Department of Anatomy)

**Visiting Professor**

Paris Constantinides, M.D., Vienna University, 1942; Ph.D., Montreal University, 1952.

**Professor Emeritus and Lecturer**

Margaret Gladys Smith, A.B., Mount Holyoke College, 1918; M.D., Johns Hopkins University, 1922.

**Associate Professors**

- Walter C. Bauer, B.S., Ohio State University, 1946; M.D., Washington University, 1954.
- Virgil R. Bleisch, M.D., Washington University, 1948.
- Phyllis M. Hartroft, B.S., University of Michigan, 1949; M.A., University of Toronto, 1951, Ph.S., 1954.
- Ruth Silberberg, M.D., University of Brsichau, 1931.
- George D. Sorenson, B.S., Pennsylvania State University, 1950; M.D., Jefferson Medical College, 1954.

**Assistant Professors**

- John D. Bauer, B.Sc., University of Innbruck (Austria), 1938; L.R.C.P. & S., University of Glasgow (Scotland), 1944; M.D., Marquette University, 1947.
Peter Capurro, M.D., University of Genoa, 1951.
Ronald F. Dorfman, M.B.B.Ch., University of Witwatersrand Medical School, 1948.
Joe W. Grisham (Markle Scholar), A.B., Vanderbilt University, 1953; M.D., 1957.
Richard L. Kempson, B.S., Tulane University, 1952; M.D., 1955.
Virgil Loeb, Jr., M.D., Washington University, 1944. (See Department of Medicine)
William R. Platt, B.S., University of Maryland, 1936; M.D., 1940.

Instructors
Luis Alvarez, M.D., University of Santo Domingo, 1958.
Francisco Barrios-Granguillhome, M.D., National University of Mexico, 1938.
Dale E. Bennett, B.S., Louisiana State University, 1954; M.D., 1958.
Leonard Jaret (Senior Trainee NIGMS), B.A., Rice University, 1956; M.D., Washington University, 1962.
Nadya Konikov, B.S., Boston University, 1946; M.D., 1950.
Frederick T. Kraus, B.A., College of William and Mary, 1951; M.D., Washington University, 1955.
Charles Kuhn, A.B., Harvard University, 1955; M.D., Washington University, 1959.
Manuel F. Menendez, B.S., University of Havana, 1949; M.D., 1956. (See Department of Medicine)
James R. Miller, A.B., Washington University, 1952; M.D., St. Louis University, 1960.
Blanca M. Perez, B.A., Universidad del Valle, Colombia, 1953; M.D., 1961. (Jewish Hospital)
Carlos Perez-Mesa, M.D., University of Havana, 1950.
Ursula Scalford, B.S., Howard University, 1942; M.D., 1945.
Gregorio Sierra, B.S., Institute of Manzanillo (Cuba), 1945; M.D., Havana University, 1954.
Herbert Silver, B.A., Adelphi College, 1953; M.D., University of Buffalo, 1957.
Louis S. K. Yuan, M.D., Aurora University (China), 1938.

Research Assistant

SECOND YEAR

20 (501). Pathology. General and special pathology are covered by lectures, gross and microscopic demonstrations, and laboratory work. In general pathology, degenerations, inflammations, infectious diseases, and tumors are considered. The diseases of each organ system are studied during the time devoted to special pathology. Small groups are given instruction in post-mortem technique, and in gross pathology. 288 hours.

(Drs. Lacy, Ackerman, Luse, R. Silberberg, Kissane, Sorenson, Grisham, J. Williamson, and Staff)
PATHOLOGY

THIRD YEAR

30. Clinical and Pathological Conference. The clinical history and treatment of patients who have died are discussed before the class by the physicians and surgeons of the departments concerned. These conferences afford the students an opportunity to interpret the clinical observations in the light of the post-mortem findings. One hour a week during the third year.

(Drs. Lacy, Luse, Kissane, Sorenson, Grisham, Williamson, and Staff)

FOURTH YEAR

40. Clinical and Pathological Conference. The clinical history and treatment of patients who have died are discussed before the class by the physicians and surgeons of the departments concerned. These conferences afford the students an opportunity to interpret the clinical observations in the light of the post-mortem findings. One hour a week during the fourth year.

(Drs. Lacy, Luse, Kissane, Sorenson, Grisham, Williamson, and Staff)

41. Tumor Conference. One hour each week for twelve weeks during the surgery and obstetrics and gynecology trimester. Problem cases are presented for illustration and discussion of all aspects of neoplastic disease. 12 hours. (Dr. Ackerman and Staff)

ELECTIVE COURSES

50 (502). Major Research. The laboratory offers facilities for research in pathology. Specialists and students with adequate training who desire to extend their knowledge of pathology will be admitted.

(Drs. Lacy, Ackerman, M. Smith, Luse, R. Silberberg, Kissane, Sorenson, Grisham, McGavran, W. Bauer, Williamson, Dorfman and Kempson)

51 (595). Journal Club. The current journals concerned with morphological and experimental pathology and oncology are reviewed by the members of the staff. Properly prepared students may attend or participate.

52 (596). Seminar in Gross Pathology. The autopsies for the affiliated hospitals are performed by the junior members of the staff. The entire Department meets, and the cases are evaluated by the senior staff at this conference. Two hours once a week throughout the year.

53 (597). Seminar in Microscopic Pathology. The microscopic sections from each autopsy are presented by the prosector at a conference.

54. Surgical Pathology. Two students full time for six weeks, all trimesters. The elective will consist of a correlation of the clinical records of hospital patients with the pathological findings. Time will be devoted to current surgical journals as related to surgical pathology, as well as a brief review of pathological techniques.

(Dr. Ackerman)
55 (598). *Autopsy Pathology.* Two students, full time for six weeks, all trimesters. The elective will consist of correlation of the clinical records of hospital patients with the pathologic findings at autopsy. Time will also be devoted to participation in the routine conferences of the department.

56. *Clerkship in Pathology at Washington University.* Students may serve as clerks in the Department of Pathology. The students will assist at autopsies and prepare reports for presentation at a seminar once a week. Six half-days a week, or full time throughout the year.

57. *Research.* Those students who during a preceding summer or school year have initiated a research problem in Pathology may continue the work during the elective trimester of the fourth year. Full time for six weeks. All trimesters.

The Department offers facilities for fulfilling requirements for the degree of Ph.D. in Pathology.
THE EDWARD MALLINCKRODT DEPARTMENT OF PEDIATRICS

In its undergraduate teaching program, the primary aim of the Department of Pediatrics is to enable the graduate to practice a good brand of pediatrics as a general practitioner. The training of the pediatric specialist is through the residency program at the St. Louis Children's Hospital. It is also expected that as a result of the combined undergraduate and postgraduate programs, a liberal number of top-ranking students will be encouraged to embark upon an academic pediatric career.

The major clinical facilities are in the St. Louis Children's Hospital and the St. Louis Maternity Hospital. The former has a bed capacity of 165, and accepts all types of problems in children under 15 years of age, averaging about 6,000 yearly admittances. The pediatric outpatient department is conducted in the hospital and averages about 50,000 yearly visits. In the St. Louis Maternity Hospital the yearly number of newborn infants averages more than 4,000.
Professor and Acting Head of the Department
David Goldring, A.B., Washington University, 1936; M.D., 1940.

Professor Emeritus (Clinical)
Borden Smith Veeder, M.D., University of Pennsylvania, 1907; Sc.D., Colgate University, 1929.

Associate Professors
M. Remsen Behrer, A.B., Williams College, 1942; M.D., Long Island College of Medicine, 1945.
J. Neal Middelkamp, B.S., University of Missouri, 1946; M.D., Washington University, 1948.
Donald Lionell Thurston, B.S., Vanderbilt University, 1934; M.D., 1937.
Jean Holowach Thurston, B.A., University of Alberta, 1937; M.D., 1941.
Teresa J. Vietti, B.S., Rice University, 1949; M.D., Baylor University, 1953.

Assistant Professors
David N. Dietzler (Pharmacology), A.B., Washington University, 1957; Ph.D., 1963. (See Department of Pharmacology)
Alexis F. Hartmann, Jr., B.S., Washington University, 1951; M.D., 1951.
Dorothy Jeannette Jones, A.B., Oberlin College, 1930; M.D., Washington University, 1934.
Ferris N. Pitts, Jr., A.B., Washington University, 1952; M.D., 1955. (See Department of Psychiatry)
Mark A. Stewart, B.A., M.A., Cambridge University, 1953; M.R.C.S., L.R., C.P., 1956. (See Department of Psychiatry)

Research Assistant Professor
Mary L. Parker, B.S., Florida State University, 1946; M.S., 1949; M.D., Washington University, 1953. (See Department of Medicine)

Assistant Professors (Clinical)
Max Deutch, M.D., Washington University, 1926.
Stanley Leonard Harrison, B.S., Washington University, 1929; M.D., 1930. (On leave of absence)
Frederick August Jacobs, B.S., Washington University, 1927; M.D., 1928.
Joseph C. Jaudon, A.B., Washington University, 1926; M.D., 1933.
Lawrence I. Kahn, A.B., University of Alabama, 1941; M.D., Louisiana State University, 1945.
Paul H. Painter, M.D., St. Louis University, 1947. (See Department of Psychiatry)
Alfred S. Schwartz, A.B., Amherst College, 1932; M.D., Johns Hopkins University, 1936.

Assistant Professor Emeritus
Ruth E. Martin (Dentistry), D.D.S., Washington University, 1923.

Assistant Professor Emeritus (Clinical)
Park J. White, A.B., Harvard University, 1913; M.D., Columbia University, 1917.

Instructors
Natalie Aronson, A.B., Hunter College, 1942; M.D., New York University College of Medicine, 1947.
John Gilster (Dentistry), D.D.S., Washington University, 1944.
Antonio Hernandez, Jr., M.D., Manila Central University, 1954.
Mabel L. Purkerson, A.B., Erskine College, 1951; M.D., Medical College of South Carolina, 1956. (See Department of Medicine)

Instructors (Clinical)
Helen M. Aff, B.S., Washington University, 1934; M.D., 1934.
Edward T. Barker, A.B., Princeton University, 1953; M.D., Washington University, 1957.
Joseph A. Bauer, M.D., Washington University, 1926.
Benjamin B. Berman, M.D., Washington University, 1939.
Clifford Read Boles, A.B., Washington University, 1910; M.D., 1943.
Martin Calodney, B.S., College of the City of New York, 1930; M.D., New York University, 1936.
Robert H. Friedman, M.D., Washington University, 1948.
Samuel Gollub, B.S., Washington University, 1941; M.D., 1941.
Gene Grabau, B.S., St. Louis College of Pharmacy, 1937; M.D., Washington University, 1942.
Roman E. Hanmes, B.A., University of Iowa, 1950; M.D., 1954.
Norman Hankin, A.B., University of Wisconsin, 1940; M.D., 1943.
Maurice J. Keller, A.B., Yale University, 1936; M.D., Columbia University, 1940.
Sheldon Kessler, M.D., St. Louis University, 1951.
Henry L. Knock, A.B., Johns Hopkins University, 1949; M.D., 1952.
Kenneth Albert Koerner, A.B., Washington University, 1935; M.D., 1941.
Marian Kuttner, M.D., Johann Wolfgang Goethe University (Frankfurt am Main), 1931.
Sol Londe, B.S., Washington University, 1925; M.D., 1927.
Richard Margolis, B.S., College of William and Mary, 1947; M.D., Western Reserve University, 1951.
John C. Martz, A.B., University of Missouri, 1938; M.D., Washington University, 1942.
David McClure, M.D., University of Tennessee, 1940.
Helen Nash, A.B., Spelman College, 1942; M.D., Meharry Medical College, 1945.
Homer Nash, M.D., Meharry Medical College, 1951.
W. Neal Newton (Dentistry).
Frederick D. Peterson, A.B., Knox College, 1953; M.D., Washington University, 1957.
Eugenia M. Pierce, M.D., St. Louis University, 1958.
Herman W. Reas, B.S., St. Joseph’s College, 1948; M.D., St. Louis University, 1952. (On leave of absence)
Edith C. Robinson, A.B., Randolph-Macon College, 1927; M.S., University of South Carolina, 1928; M.D., Johns Hopkins University, 1932. (See Department of Psychiatry)
George Sato, M.D., Washington University, 1947.
Bernard Schwartzman, A.B., Washington University, 1931; M.D., 1935.
Donald B. Strominger, B.A., Yale University, 1949; M.D., Washington University, 1953.
Barbara Nancy Voegle, B.S., University of Illinois, 1950; M.D., Washington University, 1957.
Kathleen Winters, B.S., Winthrop College, 1946; M.D., Medical College of South Carolina, 1955.
Frank S. Wissmath, A.B., Washington University, 1939; M.D., 1943.
H. Benjamin Zwirn, M.D., University of Basel (Switzerland), 1954.

Instructors Emeriti (Clinical)
Paul Edward Kubitscheck, B.S., Creighton University, 1918; M.D., 1922; D.Sc., University of Pennsylvania, 1928. (See Department of Psychiatry)
Maurice J. Lonsway, B.S., Valparaiso University, 1910; M.D., St. Louis University, 1914.
Edwin H. Rohlfing, M.D., Washington University, 1919.

Assistants (Clinical)
Gerald J. Duling, B.S., Xavier University, 1955; M.D., St. Louis University, 1959.
Ira J. Friedman, B.S., University of Arkansas, 1955; M.D., 1960.
SECOND YEAR

20. In the course in Applied Pathologic Physiology the student is introduced to pediatrics and the full-time staff through the medium of twelve lectures designed to acquaint him with the nature of human growth and development, and the relationship of age to reaction to injury and disease. In the course of Conjoint Medicine the student is taken to the wards and given instruction in physical diagnosis. (See page 64.)

(Entire full-time staff)

THIRD YEAR

One-eighth of the class works for six weeks, one-half day five times a week, in the following: (1) Assignment to intern or resident with joint responsibility of caring for in-patients; (2) daily ward rounds and bedside conferences with house staff and supervising physician; (3) weekly conference on infectious diseases; (4) weekly clinical conference; (5) rounds in metabolic, cardiac, allergic, and hematologic diseases; (6) course in newborn physiology and newborn nutrition.

FOURTH YEAR

One-eighth of the class works for six weeks, one-half day five times a week, in the pediatric out-patient department. The students examine new patients, follow them throughout the six-week period and have the opportunity to deal with common as well as unusual pediatric problems. Conferences with pediatricians in private practice and with pediatric psychiatrists are directed toward practical aspects of management of childhood illness.

Each student is assigned to one of the specialty clinics for one-half day each week.

All students rotate through the emergency room during the evening. Here they deal with emergencies and acutely ill patients under the direction of the residents.

ELECTIVE COURSE

Elective time in a student's over-all free time period may be spent according to the individual desires of the student as an intern substitute, in the research laboratory, or by combining clinical and laboratory work.
Dr. Oliver H. Lowry, Professor of Pharmacology, observes two students as they carry out an experiment as part of their research project in the Pharmacology course in the second year.

The number of useful drugs is steadily increasing. It is the purpose of the pharmacology course, through discussions of existing drugs, to develop general principles which will be applicable as well to drugs of the future. Pharmacology draws heavily on biochemistry, physiology, and bacteriology for an understanding of drug action. It looks toward pathology, medicine, and surgery for its uses. For this reason the course is constructed as a part of the continuum of medicine rather than a separate discipline. Since many drugs are harmful in excessive amounts, toxicology is included in the course as a logical part of pharmacology.

The laboratory portion of the course is divided roughly in half. The first part consists of selected animal experiments designed to illustrate and give reality to the action of drugs; the second part of the laboratory period is devoted either to a small research project for each group of four students or to a seminar series concentrating on one
particular area of pharmacology. When research projects are scheduled, the problems are of student choice and the results are reported to the class. When seminar courses are scheduled, the groups consist of twenty students and two or three faculty members.

Professor and Head of the Department
Oliver Howe Lowry, B.S., Northwestern University, 1932; Ph.D., University of Chicago, 1937; M.D., 1937.

Professor
Francis Edmund Hunter, Jr., B.S., Mount Union College, 1938; Ph.D., University of Rochester, 1941.

Professor Emeritus
Helen Tredway Graham, B.A., Bryn Mawr College, 1911; M.A., 1912; Ph.D., University of Chicago, 1915.

Associate Professors
Helen B. Burch, B.S., Texas State College for Women, 1926; M.S., Iowa State College, 1928; Ph.D., 1935.
Robert M. Burton, B.S., University of Maryland, 1950; M.S., Georgetown University, 1952; Ph.D., The Johns Hopkins University, 1955.
Stephen C. Kinsky, A.B., University of Chicago, 1951; Ph.D., Johns Hopkins University, 1957.

Assistant Professors
David B. McDougal, Jr., A.B., Princeton University, 1945; M.D., University of Chicago, 1947.
Bruce Breckenridge, B.S., Iowa State College, 1948; Ph.D., University of Rochester, 1952; M.D., 1956.
David M. Geller, B.A., Amherst College, 1952; Ph.D., Harvard University, 1957.
Franz M. Matschinsky, M.B., University of Freiburg, 1955; M.D., University of Munich, 1959.
Janet V. Passonneau, B.A., University of Minnesota, 1945; M.A., Radcliffe College, 1946; Ph.D., Harvard University, 1949.

Lecturers
Charles M. Baugh, B.S., University of Chicago, 1958; Ph.D., Tulane University, 1962. (See Department of Medicine)
David N. Dietzler, A.B., Washington University, 1957; Ph.D., 1963. (See Department of Pediatrics)

SECOND YEAR

20 (501 and 502). (a) Lectures, conferences, panel discussions. 70 hours.
(b) Laboratory course. 146 hours. (Drs. Lowry, Hunter, Burch, Burton, Kinsky, McDougal, Breckenridge, Geller, Matschinsky, Passonneau)

ELECTIVE COURSE

51 (590). Research. The facilities of the laboratory are available to those who wish to carry on original investigation on problems of their own or on those the department is prepared to suggest.
Doctors Gordon Schoepfle and William Sleator, Jr., discuss plans for research in one of the departmental laboratories.

DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS

The Department occupies one and one-half floors of the South Building and one floor of the Cancer Research Building. The student laboratories are shared with the Department of Pharmacology, whose student laboratory work is done in the first trimester of the second year. The course is given in the second semester of the first year. Three blocks of six full-day experiments are performed, one block in each of the six-week periods of the second semester. The principal research interests of the department at present are the peripheral and central nervous systems, muscle, respiration, kidney, exchanges through cell membranes, and protein structure.

Professor and Acting Head of the Department
William Sleator, Jr. (Physiology and Biophysics), A.B., University of Michigan, 1938; M.S. 1939; Ph.D., 1946.

Professors
Thomas T. Sandel (Psychology), B.A., Uni-

Gordon Marcus Schoepfle (Physiology and Biophysics), A.B., DePauw University, 1937; A.M., Princeton University, 1939; Ph.D., 1941.

Michel M. Ter-Pogossian (Radiation Physics), B.A., University of Paris, 1942; M.S., Washington University, 1948; Ph.D., 1950. (See Department of Radiology)

Professors Emeriti

Hallowell Davis, A.B., Harvard University, 1918; M.D., 1922; Sc.D. (hon.), Colby College, 1954. (See Department of Otolaryngology)

Arthur S. Gilson, Jr., B.S., Dartmouth College, 1919; A.M., Harvard University, 1922; Ph.D., 1924. (Also Lecturer)

Harvey Lester White, B.S., Washington University, 1918; M.D., 1920. (Also Lecturer)

Associate Professors

Stanley Lang (Physiology), Ph.B., University of Chicago, 1946; S.B., 1948; S.M., 1949; Ph.D., 1952. (Jewish Hospital)

Charles E. Molnar (Physiology and Biophysics), B.S.E.E., Rutgers University, 1956; M.S.E.E., 1957.

Albert Roos (Physiology), M.D., University of Croningen, 1940. (See Department of Surgery)

Assistant Professors

Leonard J. Banaszak (Biophysics), B.S., University of Wisconsin, 1956; M.S., Loyola University, 1961; Ph.D., 1961.

Harry A. Fozzard (Physiology), M.D., Washington University, 1956. (See Department of Medicine)

F. Scott Mathews (Biophysics), B.S., University of California, 1955; Ph.D., University of Minnesota, 1959.

Research Assistant Professor

Doris Rolf (Physiology), A.B., Harris Teachers College, 1936.

Instructors

Frederick W. Klinge (Physiology), A.B., University of Missouri, 1938; M.D., Washington University, 1942. (See Department of Surgery)


Truman E. Mast (Physiology), A.B., Goshen College, 1957; M.D., Western Reserve University, 1961. (Central Institute for the Deaf)

Research Assistant

Taisija de Gubareff (Biophysics and Physiology), M.S., Polytechnic Institute (Kiev), 1940.

FIRST YEAR

The lectures cover systematically the field of human physiology. The laboratory experiments are selected with the twofold objective of (a) supplying a basis for the understanding of the more important physical methods employed in physiology and in clinical medicine, and (b) elucidating certain fundamental physiological principles essential to the intelligent practice of medicine as well as to the further pursuit of physiology. The student serves as the subject in many of the experiments. The course is designed primarily to meet the needs of medical students.

Small groups of students meet with instructors in scheduled conferences to discuss principles concerned with laboratory experiments, results of and conclusions drawn from experiments, and correlations of laboratory with lecture material.

Open to students who have completed or have begun the study of anatomy and biological chemistry.
10 (502). Lectures in second semester of first year. 104 hours. (Staff)

11 (503). Laboratory and conferences. Second semester of first year. Laboratory 126 hours, conferences 40 hours. (Staff)

ELECTIVE

50 (590). Research. The facilities of the laboratory are offered to qualified students for the investigation of their own problems or of those which the department is prepared to suggest. The most appropriate time for student research is the summer months or free time in the senior year.
Doctors David Pittman and Robert Shank and fourth-year medical students assigned to the co-ordinated out-patient clerkship participating in a seminar of problems of medical care.

DEPARTMENT OF PREVENTIVE MEDICINE AND PUBLIC HEALTH

Instruction in preventive medicine and public health is given in the first, second, and fourth years of the undergraduate medical curriculum. In the first semester of the first year the staff of the Student Health Service, which is a part of the department organization, presents a course in health and health management applied most specifically to health problems peculiar to the medical student and physician. Throughout the four years the Health Service attempts to teach by precept as students appear for health counsel or treatment of illness. Later in the first year, a course in statistical methods in medicine is given and is introductory to the later use of statistical procedures in courses of other departments. The principles of epidemiology and the concepts of the natural history of disease are presented in a second-year course. From these are deduced the opportunities for individual and community action in the prevention
and control of disease. The teaching of the department in the fourth year is included in the Co-ordinated Outpatient Clerkship. At this time emphasis is placed upon the opportunities for health promotion and disease prevention in the contacts of physician with patients in office practice. In addition, as suitable opportunities present, the student visits certain patients at home and contacts community agencies for assistance for the patient and family.

Danforth Professor and Head of the Department
Robert Ely Shank, A.B., Westminster College, 1935; M.D., Washington University, 1939. (See Department of Medicine)

Kountz Professor
Hugh Chaplin, Jr., A.B., Princeton University, 1943; M.D., Columbia University, 1947. (See Department of Medicine and Institute of Rehabilitation)

Professors
C. Howe Eller (Public Health), A.B., Stanford University, 1927; M.D., University of Colorado, 1930; Ph.D., Johns Hopkins University, 1934.
Richard M. Krause (Epidemiology), A.B., Marietta College, 1947; M.D., Western Reserve University, 1952. (See Department of Medicine) (July 1 to October 31, 1966)

Associate Professors
Albert Eisenstein, A.B., University of Missouri, 1941; M.D., Washington University, 1944. (Jewish Hospital) (See Department of Medicine)
B. V. Jager, A.B., Harvard University, 1934; M.D., 1938. (See Department of Medicine)
M. Kenton King, B.A., University of Oklahoma, 1947; M.D., Vanderbilt University, 1951. (See Department of Medicine)

Assistant Professors
William F. Bridgers, B.A., University of the South, 1954; M.D., Washington University, 1959. (See Department of Medicine)
Julian B. Fleischman (American Heart Association Established Investigator), B.S., Yale University, 1955; Ph.D., Harvard University, 1960. (See Department of Microbiology)
John Hollosy, M.D., Washington University, 1957. (See Department of Medicine)
George R. Morrison (Markle Scholar), B.N.S., Holy Cross College, 1946; A.B., University of Rochester, 1948; M.D., 1954. (See Department of Medicine)
C. Kirk Osterland (Arthritis Foundation Special Investigator), M.D., University of Manitoba, 1956. (See Department of Medicine)
James C. Peden, Jr., A.B., Haverford College, 1951; M.D., Washington University, 1955. (See Department of Medicine)
Eng M. Tan (Arthritis Foundation Special Investigator), A.B., Johns Hopkins University, 1952; M.D., 1956. (See Department of Medicine)
John D. Vavra, B.A., University of Colorado, 1950; M.D., Washington University, 1954. (See Department of Medicine)
M. Frances Watson (Social and Environmental Studies), B.S., Northeast Missouri State Teachers College, 1932; M.S.W., Washington University, 1949.

Instructors
Ruth E. Brennan (Nutrition), B.S., University of Tennessee, 1943; M.S., Simmons College, 1945; Sc.D., University of Pittsburgh, 1966.
Mildred Hendricks (Social Work), B.S., Converse College, 1948; M.S.W., Washington University, 1962.
Janelyn M. Mueller (Occupational Therapy and Rehabilitation), B.S., Washington University, 1959.
Shirley Sahrmann (Physical Therapy and Rehabilitation), B.S., Washington University, 1958.
Anne Brown Short (Physical Therapy and Rehabilitation), B.S., Washington University, 1951.
Franz U. Steinberg (Physical Medicine and Rehabilitation), M.D., University of Berne, 1938. (See Department of Medicine)
Elizabeth L. Winston (Social Work), B.A., Radcliffe College, 1941; M.S., Columbia University, 1948.

Research Instructors
Charles Kilo, M.D., Washington University, 1959. (See Department of Medicine)

Marvin Levin, A.B., Washington University, 1947; M.D., 1951. (See Department of Medicine)

Lecturers
Harry L. Acker (Physical Medicine and Rehabilitation), B.S., Clemson College, 1940; M.D., Medical College of South Carolina, 1950.
Barbara Hixon (Biostatics), B.S., University of Illinois, 1941.
Richard A. Sutter (Industrial Medicine and Rehabilitation), A.B., Washington University, 1931; M.D., 1935.

**FIRST YEAR**

10. **Health and Health Maintenance.** The purpose of this course of twelve lectures is to introduce considerations of health and health planning, relating these particularly to the medical student and physician in practice. The environment and conditions in which the student is to spend the next four years are considered in detail. How the student may plan to adapt his habits of living, work, and recreation so that a state of health may be most readily assured and disease prevented is discussed. In addition students are introduced to the services available through the Health Service. First semester, 1 hour a week, 12 hours.

(Dr. Peden and Staff)

11. **Statistical Methods in Medicine.** Twelve two-hour periods are devoted to an introduction to statistical methods important in the study of medicine. Lectures and exercises are concerned with collection of data, descriptive statistics, common theoretical distributions, tests of significance, correlation, and regression. A knowledge of these is presented as essential in the design of experiments and in the interpretation of data recorded in the medical literature. The material in the course affords background material for later use of statistics in courses of the Departments of Pharmacology, Physiology, and Preventive Medicine. First and second semesters, 2 hours a week, 24 hours.

(Mrs. Barbara Hixon)

**SECOND YEAR**

20. **Prevention and Control of Disease.** This series of lectures emphasizes the principles of epidemiology which describe the patterns and behavior of diseases in populations and the natural history of diseases. The course emphasizes the relative significance of the specific cause of disease within the framework of multiple etiological factors. Attention is directed to the fact that an epidemiological description of a disease is a valuable approach to the definition of disease mechanisms. Epidemiology, in defining significant parameters of the natural history of disease, assists in the diagnosis, prognosis, and prevention of that disease. During the second and third trimester, 1 hour a week for 12 weeks.

(Dr. Krause and Staff)
FOURTH YEAR

40. Co-ordinated Outpatient Clerkship. The purpose of this clerkship is to afford experience in dealing with the problems of ambulatory patients. Each student is assigned for the period of one trimester. He cares for patients in the following clinics: Medicine, Surgery, Obstetrics and Gynecology, Psychiatry, Neurology, Ophthalmology, Otolaryngology, and Dermatology. The student becomes the physician for the patient, and his instructors are his consultants. Patients who are seen on initial visits in the Medicine Clinic by the student but who require examination in other specialty clinics are given appointments in the second clinic at times corresponding to the periods in which the student is also assigned to that clinic. The opportunity is available for the student to observe and follow each patient for as long as desirable in each of the participating clinics. In addition, the student is responsible for maintaining contact with patients during periods of hospitalization and for visiting certain patients in the home.

The clerkship is under the general direction of the Department of Preventive Medicine. The teaching of the department is directed at opportunities for institution of preventive measures and for health management in the office practice of medicine. In addition, the student is taught to evaluate the social and environmental factors which pertain in the individual case and to take account of these in planning programs of therapy. He is given information about and encouraged to utilize the facilities of a variety of health and welfare agencies in dealing with his patients' problems. The teaching of the department is carried out through weekly seminars, student interviews with assigned instructors, and socio-medical case studies. By assignment, 30 hours a week, 360 hours.

ELECTIVE

50. Public Health Elective. Junior or senior students are afforded an opportunity to participate in epidemiologic and public health programs for a period of six weeks in the St. Louis County Health Department. The activities to be undertaken are determined after consultation with the staff but will ordinarily include participation in selected public health programs and special projects which relate to the particular interests of the student. Full time, six weeks. (Dr. Eller)

51. Epidemiology. Two students. All day for six or twelve weeks. Epidemiological studies with emphasis on streptococcal infections, rheumatic fever, and acute glomerulonephritis. Laboratory investigation on the biology of hemolytic streptococci, pathogenesis of rheumatic fever, and other connective tissue diseases. Conferences and seminars. (Dr. Krause)
Doctors Eli Robins, Edwin F. Gildea, George Winokur, and Samuel B. Guze discuss departmental training, educational and research plans.

DEPARTMENT OF PSYCHIATRY

Instruction in psychiatry is given in all four years of the medical course. In the last half of the first year a course is given which is basic to the understanding of human behavior. Major emphasis is given to a presentation of psychological research in the field of early development, learning, emotion, and similar topics.

In the second year, the student is introduced to psychiatric interviewing, to the evaluation of emotional and behavioral symptoms, to clinical psychiatric disorders—their diagnosis and natural history, and to the conceptual problems involved in psychiatry and psychology. These subjects are taken up in lectures, demonstration interviews, and discussion. The emphasis is upon critical thinking, the evaluation of data, and the methodologic problems arising in the study of behavioral, emotional, and thinking disturbances.
In the third year, supervised clinical study of patients admitted to the Renard Hospital is emphasized. An introduction is given to various therapeutic procedures in psychiatry.

In the fourth year, psychiatric teaching is carried out in the concurrent outpatient clerkship. Students may select electives of special interest from a variety of opportunities. In the psychiatric teaching, whether regular course or elective, major emphasis is upon interviewing techniques, diagnosis, and psychotherapy.

Wallace Renard Professor and Head of Department
Eli Robins, A.B., Rice University, 1940; M.D., Harvard University, 1943.

Wallace Renard Professor Emeritus of Psychiatry
Edwin Francis Gildea, A.B., Colorado College, 1920; M.D., Harvard University, 1924.

Professors
Samuel B. Guze, M.D., Washington University, 1945. (See Department of Medicine)
Saul Rosenzweig (Medical Psychology), A.B., Harvard University, 1929; M.A., 1930; Ph.D., 1932. (Also Department of Psychology)
John A. Stern (Psychology), A.B., Hunter College, 1949; M.S., University of Illinois, 1951; Ph.D., 1953. (Also Department of Psychology)
George Winokur, A.B., Johns Hopkins University, 1944; M.D., University of Maryland, 1947.

Blanche Ittleson Professor of Child Psychiatry

Research Professor
Lee N. Robins (Sociology), A.B., Radcliffe College, 1942; M.A., 1943; Ph.D., 1951.

Associate Professors
Malcolm D. Gynther (Medical Psychology), A.B., Stanford University, 1950; M.A., 1951; Ph.D., Duke University, 1956. (July 1 to September 15, 1966)

George E. Murphy, B.S., Oregon State College, 1949; M.D., Washington University, 1952.
Patricia L. O'Neal, A.B., Washington University, 1944; M.D., 1948.
Kathleen Smith, B.S., University of Arkansas, 1944; M.D., Washington University, 1949.

Research Associate Professor
David J. Pittman (Sociology), A.B., University of North Carolina, 1949; M.A., 1950; Ph. D., University of Chicago, 1956. (Also Social Science Institute)

Associate Professor (Clinical)
Margaret C.L. Gildea, B.S., University of Chicago, 1923; M.D., Yale University, 1936.

Assistant Professors
Thomas C. Brugger (Child Psychiatry), B.S., University of Wisconsin, 1950; M.D., 1953.
Loretta Cass (Medical Psychology in Child Psychiatry), B.A., Colorado College, 1934; M.A., 1942; Ph.D., Ohio State University, 1950. (Also Department of Psychology)
Stanton P. Fjeld (Medical Psychology), B.A., University of Minnesota, 1950; M.A., University of Missouri, 1954; Ph.D., 1956.
Lucille Healy (Social Work), A.B., College of St. Catherine, 1922; M.A., University of Minnesota, 1927; M.S.W., Washington University, 1949.
Richard W. Hudgens, M.D., Washington University, 1956.

Ferris N. Pitts, Jr., A.B., Washington University, 1952; M.D., 1955. (See Department of Pediatrics)


Mark A. Stewart, B.A., M.A., Cambridge University, 1953; M.R.C.S., L.R.C.P., Cambridge and St. Thomas’ Hospital, 1956. (See Department of Pediatrics)

Research Assistant Professors

John C. Glidewell (Medical Psychology), A.B., University of Chicago, 1949; Ph.D. 1953.

Blake W. Moore (Biochemistry), B.S., University of Akron, 1948; Ph.D., Northwestern University, 1952.

Hans Schmidt (Medical Psychology), B.A., University of Chicago, 1947; B.S., Northwestern University, 1949; M.A., North Carolina University, 1951; Ph.D., University of Illinois, 1954.

William R. Sherman (Biochemistry), A.B., Columbia University, 1951; Ph.D., University of Illinois, 1955.

Assistant Professors (Clinical)

Nathan Blackman, B.S., University of Rhode Island, 1929; M.D., University of Paris, 1936.

Robert D. Brookes, A.B., DePauw University, 1934; M.D., Washington University, 1938.

Anthony K. Busch, M.D., St. Louis University, 1937.

Hyman H. Fingert, B.A., State University of Iowa, 1931; M.D., 1934.

James N. Haddock, A.B., University of Missouri, 1940; M.A., 1942; M.D., Washington University, 1943.

Leopold Hofstatter, M.D., University of Vienna, 1926.

Alex H. Kaplan, B.S., College of City of New York, 1932; M.D., St. Louis University, 1936.


Roy M. Mendelsohn (Child Psychiatry), B.S., University of Illinois, 1950; M.D., 1952.

Paul H. Painter (Child Psychiatry), M.D., St. Louis University, 1947. (See Department of Pediatrics)

Val B. Satterfield, B.S., Washington University, 1922; M.D., 1924.

Frank O. Shobe, A.B., Washington University, 1938; M.D., 1942.

Conrad Sommer, B.S., University of Illinois, 1929; M.S., 1931; M.D., 1932.

Instructors

Anna K. Bradley (Social Work), B.J., University of Missouri, 1956; M.S.W., Washington University, 1958.

Lincoln B. Calvin, B.Ed., Illinois State Normal University, 1942; M.D., Meharry Medical College, 1951. (Bliss Hospital)

Marguerite Cannon (Social Work), B.S., St. Louis University, 1936; M.S.W., Washington University, 1948.

Gabrielle Casebier (Speech Correction in Child Psychiatry), B.S., University of Illinois, 1912; M.A., 1942; Ph.D., University of Wisconsin, 1959.


Kimon Efstathianos, M.D., National University of Athens, 1951.

Mary Grohmann, M.S., St. Louis University, 1959; Ph.D., 1965.

Marijan Herjanic, M.D., Zagreb University, 1956.

John B. Lewis (Medical Psychology in Child Psychiatry), B.S., Northwestern University, 1919; M.S.W., Washington University, 1952.

James F. Lomont (Medical Psychology), M.S., University of Wisconsin, 1954; Ph.D., University of Illinois, 1961. (July 1 to August 31, 1966)

Adolfo E. Rizzo (Child Psychiatry) M.D., Buenos Aires University, 1955. (St. Louis State Hospital)

Luis H. Schwarz, M.D., Universidad Nacional Autonoma de Mexico, 1955. (Bliss Hospital)
Alberto Soto, M.D., Salamanca University, 1959. (Bliss Hospital)
Robert H. Vanderpearl, A.B., Washington University, 1951; M.D., 1956. (Bliss Hospital)
Robert A. Woodruff, Jr., A.B., Harvard University, 1956; M.D., 1960.

Instructor Emeritus and Lecturer
Louetta Berger (Social Work in Child Psychiatry), B.S., University of Wichita, 1941; M.S.W., Washington University, 1946.

Research Instructors
Adele B. Croninger, A.B., Washington University, 1943; M.A., 1948. (On leave of absence)
Robert Goldstein (Medical Psychology), B.A., City College of New York, 1954; Ph.D., University of Illinois, 1962.

Instructors (Clinical)
John M. Anderson, B.S., Colorado State University, 1938; M.D., Meharry Medical College, 1958. (Bliss Hospital)
Libby G. Bass (Medical Psychology), B.A., University of Illinois, 1928; M.A., Northwestern University, 1929.
Robert M. Bell, M.D., St. Louis University, 1928.
William Cone, B.A., Yale University, 1949; M.D., 1954.
Edmund V. Cowdry, Jr., A.B., Princeton University, 1942; M.D., Washington University, 1945.
Mary E. Cox, A.B., Washington University, 1941; M.D., 1944.
Willbur H. Gearhart, B.S., Butler University, 1949; M.D., Hahnemann Medical College, 1950.
Janet Golden (Social Work), A.B., Washington University, 1924.

Robert S. Hicks, A.B., Hendrix College, 1951; M.D., University of Arkansas, 1958.
Lilli Hofstatter, M.D., University of Vienna, 1949.
Joseph B. Kendis (Clinical Medicine), M.D., Washington University, 1933.
Edward H. Kowert, A.B., Washington University, 1940; M.D., 1943.
Sophia P. McCay (Child Psychiatry), B.S., University of Denver, 1949; M.D., University of Colorado, 1959.
John H. McManah, A.B., Southeast Missouri State Teachers College, 1939; M.D., St. Louis University, 1943.
Jay Meyer, A.B., Washington University, 1956; M.D., St. Louis University, 1960.
Saul Niedorf (Child Psychiatry), B.A., University of California, 1952; C.S.W., 1953; M.D., University of Geneva, 1959.
Reese H. Potter, A.B., University of Kansas, 1931; B.S., University of Missouri, 1933; M.D., Washington University, 1935.
Edith C. Robinson (Child Psychiatry), A.B., Randolph-Macon College, 1927; M.S., University of South Carolina, 1928; M.D., Johns Hopkins University, 1932. (See Department of Pediatrics)
Earl R. Schultz, A.B., Southeast Missouri State College, 1952; B.S., University of Missouri, 1955; M.D., Washington University, 1955. (See Department of Neurology)
Nathan M. Simon, M.S., Yale University, 1950; M.D., Washington University, 1955.
Harold D. Wolff, A.B., Washington University, 1952; B.S., University of Missouri, 1953; M.D., State University of Iowa, 1955.

**Instructors Emeriti (Clinical)**

Barbara S. Kendall (Medical Psychology), A.B., Radcliffe College, 1913; Ed.M., Harvard University, 1928.

Paul E. Kubitschek (Child Psychiatry), B.S., Creighton University, 1918; M.D., 1922; Sc.D., University of Pennsylvania, 1928. (See Department of Pediatrics)

**Consultant**


**Lecturer**


**Assistants**

Patricia J. Brilliant (Medical Psychology), A.B., Washington University, 1961; M.A., 1962. (July 1 to September 14, 1966)


Mary Anne Mercer (Psychiatric Social Work in Child Psychiatry), B.A., D'Youville College, 1959; M.S.W., St. Louis University, 1961.

Carolyn Denison Redmore (Medical Psychology), A.B., Washington University, 1963. (July 1 to September 14, 1966)


Algimantas Martin Shimkunas, B.S., St. Louis University, 1962; M.S., 1964. (July 1 to September 15, 1966)

Michael Roy Stern (Medical Psychology), B.A., New Mexico State University, 1962. (July 1 to September 14, 1966)

Betty I. Unger (Medical Psychology), B.A., University of Wisconsin, 1963. (July 1 to September 14, 1966)

**Research Assistants**

James E. Dulaney (Social Work), A.B., Virginia Union University, 1954; M.S.W., St. Louis University, 1957.


Firoze B. Jungalwala (Biochemistry), B.Sc., Gujarat University, 1956; M.Sc., 1958; Ph.D., Indian Institute of Science, 1963.

Stefan Offenbach (Medical Psychology), A.B., Washington University, 1965.

Francis M. Payne (Social Work), A.B., Lincoln University, 1916; M.A., University of Missouri, 1956.


Geoffrey F. Thompson, B.S., University of Santa Clara, 1957; M.S., St. Louis University, 1964.


**Fellow**

Eli Ronald Shuter (Special Post-doctoral Fellow NINDB), A.B., Cornell University, 1956; M.D., Washington University, 1960.
FIRST YEAR


Determinants of Behavior. Through lectures, discussion, and patient presentations, a framework for understanding human behavior (both in illness and in health) is presented. Four hours are given to the discussion of childhood behavior and development, which discussion is augmented by observing four children at different age levels. Such subjects as ethology, depression, anxiety, learning, hostility, and sexuality are presented to the class. These determinants are illustrated by the interviewing of adult patients from the hospital. The last 5 hours of the program are devoted to social factors in disease and personality development. 18 hours. (Dr. McClure and Associates)

SECOND YEAR

20. Psychiatry.

The Pathology of Behavior. (Part of Conjoint Medicine. See page 64.) Emphasis is upon (a) effective interviewing in preparation for medical history taking; (b) evaluation of behavioral and emotional factors in patients with various kinds of illnesses; (c) the diagnosis and natural history of the major psychiatric disorders; (d) critical evaluation of conceptual and methodologic problems in psychiatry and psychology. Lectures, demonstration interviews, discussions. 48 hours. (Drs. Murphy, Guze, Painter, Eli Robins, Winokur)

THIRD YEAR

30. Psychiatry.

Students in groups of seven spend 3 weeks full time on the inpatient service of Renard Hospital. Each new admission is studied by an individual student. This study includes a history from the relatives and from the patient, physical and neurological examinations, and a mental status examination. The progress of the patient is also followed by the student. Psychiatric emergencies are also seen when the student is on emergency call with a member of the house staff. Teaching exercises include ward rounds three times weekly on the students’ patients; a seminar in which original articles from the literature are read and discussed; an introduction to psychotherapy, drug therapy, and the various shock therapies; and clinical conferences with the resident house staff. (Drs. Eli Robins, O’Neal, Murphy, and Associates)

FOURTH YEAR

40. Psychiatry.

(a) Senior students obtain experience in the recognition, diagnosis, and management of outpatient psychiatric disorders in that part of the co-ordinated outpatient clerkship conducted by the staff of the Psychiatry Clinic. The emphasis in this part
of the clerkship is on the development of interviewing and psychotherapeutic skills. 54 hours.

(b) *Psychiatric Aspects of Clinical Medicine.* (See Medicine—Dr. Guze)

(c) *Pediatric Psychiatry.* The staff of the Child Guidance Clinic participates in consultation and informal instruction when the students are in their clerkship in Pediatrics.

**ELECTIVE COURSES**

51. *Psychiatry.* Work may be elected for six weeks. Student’s preference as to type of experience desired will be met so far as possible. Students may work in Renard Hospital, the Bliss Institute, the St. Louis State Hospital, the Barnes Hospital, or the University Clinics. Each student must make his wishes known to Dr. E. Robins and must then obtain the approval of the staff member who will supervise the work.

(Drs. E. Robins, Guze, Winokur)

52. *Research in Psychology and Psychiatry.* Facilities are available for qualified students to undertake original research in the laboratories of the department or in the clinics or wards.

(Dr. E. Robins)

53. *Staff Conferences.* Students are invited to attend certain of the psychiatric staff conferences held weekly at Bliss Institute.

54. *Psychoanalysis.* Introduction to psychoanalysis is presented at weekly seminars lasting one trimester. Some didactic material is given, but most of the session is devoted to discussion.

(Drs. Cruvant, Dewald, Fingert, Kaplan, Sommer)
DEPARTMENT OF RADIOLOGY

For the convenience of administration, teaching, and research, the Department of Radiology is divided into divisions and sections under the following directors:

Diagnostic Radiology
- Abdominal Radiology: Dr. Ruben Koehler
- Cardiac and Pulmonary: Dr. Larry Elliott
- Neuroradiology: Dr. David O. Davis
- Pediatric Radiology: Dr. William McAlister

Medical Ultrasound: Dr. Ray A. Brinker
Therapeutic Radiology: Dr. William E. Powers
Radiation Biology: Dr. Leonard J. Tolmach
Radiation Physics and Nuclear Medicine: Dr. Michel Ter-Pogossian
The Department of Radiology of Washington University is housed in the Edward Mallinckrodt Institute of Radiology and connects by corridor or tunnel with all of the hospitals and clinics constituting the Medical Center. The Department provides both diagnostic and therapeutic radiological services for the patients of Barnes, St. Louis Children's, St. Louis Maternity, McMillan, Wohl, Barnard, and Renard Hospitals, Washington University Clinics, and the Queeny Tower. In addition, laboratory facilities for research in radiation physics, radiation biology, radiation therapy, and ultrasound are housed in the Institute.

Four floors of the Institute building are devoted to diagnostic roentgenographic facilities. The first floor houses administrative and business offices, film library, and consultation viewing rooms. A book and journal library and a conference room are located on the eighth floor. The radiation therapy division is located on the ground floor of the Institute and in Barnard Hospital. Its facilities include low and high voltage X-ray, cobalt, and a 24 Mev. betatron in addition to radium and other radioactive isotope therapy. Two floors of the Institute provide research laboratories for the staff and experimental diagnostic and therapeutic service for other departments of the School. The radiation physics and nuclear medicine division has the most up-to-date equipment for radiation detection and scanning, as well as a cyclotron used to produce short-lived isotopes for research. A medical ultrasound laboratory for research and clinical application is located on the sixth floor of the Institute.

The undergraduate teaching program is designed to present both diagnostic and therapeutic radiology to students as part of their clinical clerkship experience. Every effort is made to provide an opportunity to correlate roentgen and clinical findings through interdepartmental conferences, consultations, and group discussions.

**Professor and Head of the Department and Director of the Mallinckrodt Institute of Radiology**

Juan M. Taveras, B.S., Normal School of Santiago, Dominican Republic, 1937; M.D., University of Santo Domingo, 1943; M.D., University of Pennsylvania, 1949.

**Professors**

William E. Powers, B.S., University of Illinois, 1949; M.D., 1951. (See Department of Surgery)

Michel M. Ter-Pogossian (Radiation Physics), B.A., University of Paris, 1942; M.S., Washington University, 1948; Ph.D., 1950. (See Department of Physiology and Biophysics)

Leonard J. Tolmach (Radiation Biology), B.S., University of Michigan, 1943; Ph.D., University of Chicago, 1951.

Hugh Monroe Wilson, A.B., Illinois College, 1924; M.D., Washington University, 1927; M.A. (hon.) Yale University, 1945. (See Department of Anatomy)

**Professor (Clinical)**


**Consultants**

Phillips M. Brooks (Radiation Physics), A.B., University of California, 1935; Ph.D., Stanford University, 1943.

Arthur L. Hughes (Physics), B.Sc., Liverpool University, 1906; M.Sc., 1908; D.Sc., 1912; B.A., Cambridge University, 1910.

Harold Perry (Radiation Therapy), M.D., Harvard University, 1948 (University of Cincinnati Medical School)
Edward H. Reinhard (Hematology and Oncology), A.B., Washington University, 1935; M.D., 1939. (See Department of Medicine)
G. R. Ridings (Radiation Therapy), M.D., Vanderbilt University, 1950. (University of Missouri Medical School)
Jose Sala (Radiation Therapy), B.S., Colegio Nacional (Argentina), 1936; M.D., Universidad del Litoral (Argentina), 1944. (Midwest Radiation Center)
Alfred I. Sherman (Gynecology), M.D., University of Toronto, 1944. (See Department of Obstetrics and Gynecology)
Mildred Trotter (Anatomy), A.B., Mount Holyoke College, 1920; Sc.M., Washington University, 1921; Ph.D., 1924; Sc.D. (hon.), Western College, 1956; Sc.D. (hon.), Mount Holyoke College, 1960. (See Department of Anatomy)

Associate Professors
Larry P. Elliott, B.S., University of Florida, 1954; M.D., University of Tennessee, 1957.
William H. McAlister, B.S., Wayne State University, 1950; M.D., 1954.
Daniel J. Torrance, B.S., University of Washington, 1944; M.D., Johns Hopkins University, 1949.

Associate Professor (Clinical)
A. Norman Arneson, B.S., Texas Christian University, 1924; M.D., Washington University, 1928. (See Department of Obstetrics and Gynecology)

Assistant Professors
Ray A. Brinker, B.A., State University of Iowa, 1954; M.D., 1957.
P. Ruben Koehler, M.D., University of Berne (Switzerland), 1956.
Carlos A. Perez, B.S., University of Antioquia (Colombia), 1952; M.D., 1960.
E. James Potchen, B.S., Michigan State University, 1954; M.D., Wayne State University, 1958.
Tom W. Staple, B.S., University of Illinois, 1953; M.D., 1955.

Visiting Assistant Professor
John S. Clifton, B.S., University of Southampton (England), 1955; M.S., University of London, 1961. (Also Division of Applied Mathematics)

Assistant Professors (Clinical)
Mark D. Eagleton, Jr., A.B., Amherst College, 1947; M.D., Washington University, 1950.
Sumner Holtz, M.D., St. Louis University, 1948.
Hyman R. Senturia, A.B., Washington University, 1929; M.D., 1933.
Wayne A. Simril, A.B., Culver-Stockton College, 1941; M.D., Washington University, 1944.

Assistant Professor Emeritus (Clinical)
Oscar C. Zink, M.D., Washington University, 1921.

Instructors
David O. Davis, B.S., University of Illinois, 1954; M.D., St. Louis University, 1958.
John O. Eichling, B.S., Northeastern Oklahoma State College, 1958; M.S., Oklahoma State University, 1959.
Saul Eisen, A.B., Emory University, 1956; M.D., 1960.
Charles D. Eversole, B.S., Eastern Kentucky State College, 1956; M.D., University of Louisville, 1960. (January to June, 1967)
Donald R. Homer, A.B., Temple University, 1956; M.D., University of Vermont, 1960.
Calvin L. Rumbaugh (NINDB Special Fellow—Neuroradiology), B.S., Northwestern University, 1949; M.D., 1952. (July 1 to September 30, 1966)

Research Instructor

Instructors (Clinical)
(See Department of Internal Medicine)
Noah Susman, A.B., Washington University, 1948; M.D., 1952. (Jewish Hospital)
Irving J. Weigensberg, A.B., Washington University, 1953; M.D., 1956.

Third and Fourth Years
Elective Courses
50. Clerkships in Radiology. Electives may be chosen in any section of the Department. Students will serve as externs, working under the supervision of the residents and senior staff in that section. Limited to one student per section. Six weeks, full time. Choices include:
   a. Plain Film Interpretation (Chest, Bones and Joints, Skull) Dr. Wilson
   b. Cardiac-Pulmonary Roentgenology Dr. Elliott
   c. Abdominal Roentgenology Dr. Koehler
   d. Neuroradiology Dr. Davis
   e. Pediatric Roentgenology Dr. McAlister
   f. Therapeutic Radiology Dr. Powers
   g. Nuclear Medicine Drs. Ter-Pogossian and Potchen
   h. Medical Ultrasound Dr. Brinker

51. Rotating Diagnostic Roentgenologic Clerkships. Students will serve as externs on chest, gastrointestinal, neurological, orthopedic, pediatric, therapeutic, and urological services. Eight students. Six weeks, full time. Special programs may be worked out.

52. Research Electives. Opportunity is available to carry out research in the laboratories under the guidance of the staff in the fields of diagnostic radiology, therapeutic radiology, radiation physics and nuclear medicine, radiation biology, and medical ultrasound.
The teaching of rehabilitation is conducted for fourth-year medical students by the Department of Preventive Medicine in collaboration with various specialty services. The Irene Walter Johnson Institute of Rehabilitation is a modern, two-story facility that is air-conditioned and well equipped for the care of disabled patients. Students of medicine, house officers, and students of paramedical services have an opportunity to affiliate with the Institute.

**Director**
Hugh Chaplin, Jr., A.B., Princeton University, 1943; M.D., Columbia University, 1947. (See Departments of Medicine and Preventive Medicine and Public Health)

**Assistant Director**
Lorraine Lake, B.S., Washington University, 1950; M.A., 1954; Ph.D., 1962. (See Department of Anatomy and Department of Physical Therapy)

**ELECTIVE**
Externships in Physical Disability and Rehabilitation of two or three months' duration are offered during the interval between the end of the spring semester and beginning of the fall semester for two or three students who have completed the first year of the Medical School curriculum. Specific instruction will be given by means of informal lectures, demonstrations, and seminars.
A professor performs an operation in Barnes Hospital assisted by members of the resident staff and fourth-year students.

THE MARY CULVER DEPARTMENT OF SURGERY

(The Department of Surgery includes General Surgery, Plastic and Reconstructive Surgery, Orthopedic Surgery, Neurological Surgery, Genitourinary Surgery, Thoracic Surgery and Anesthesiology.)

The instruction in the Department of Surgery begins with an introduction to surgical principles at the end of the second year. These surgical principles for the most part are derived from fundamental concepts in the preclinical sciences which have been occupying the student since the beginning of the freshman year. Although in this course a few patients are used for the demonstration of lesions which illustrate the principles of surgery, it is in the junior year that the first personal contact with patients occurs. Each student is then assigned to a clinical clerkship in the hospital wards and in that way is given an opportunity to study the more common and important kinds of surgical diseases.
The junior clerkship lasts for six weeks, and is performed on the general and plastic surgical services of the hospitals in the Medical Center. During the clerkship the student attends resident rounds in the morning and scheduled staff rounds in the afternoon. Students are given the opportunity of attending and assisting at all operations on patients assigned to them. Instruction in the examination of the patient and in special diagnostic and various therapeutic techniques is given by the resident house officers during morning rounds, and by members of the senior staff during staff rounds and the student general surgery conference held at 11 a.m. on Saturdays. Pre- and post-operative care is emphasized, especially as it relates to pathology, physiology, biochemistry, and bacteriology.

During the junior year all students attend a weekly surgical clinic of one and one-half hours. During the third trimester these clinics are conducted by the Departments of Ophthalmology and Otolaryngology, and during the first and second trimesters by the Department of Surgery.

In the senior year the students spend one trimester on a surgical clerkship, dividing the time between the surgical specialties and an emergency service.

**Professor and Acting Head of the Department**

Henry Gerard Schwartz (Neurological Surgery), A.B., Princeton University, 1928; M.D., Johns Hopkins University, 1932.

**Henry E. Mallinckrodt Professor of Anesthesiology and Chief of the Division of Anesthesiology**

Robert B. Dodd, M.D., University of Nebraska, 1945.

**Professors**

Harvey R. Butcher, A.B., Central College, 1941; M.D., Harvard University, 1944.

Justin J. Cordonnier (Urology), B.S., Washington University, 1926; M.D., 1928.

Sidney Goldring (Neurological Surgery), M.D., Washington University, 1947.

Morton Donald Pareira, A.B., Washington University, 1933; M.D., 1937. (Jewish Hospital)

Fred C. Reynolds (Orthopedic Surgery), A.B., Washington University, 1931; M.D., 1934.

**Research Professor**

Albert Roos (Anesthesiology), M.D., University of Groningen (Holland), 1940. (See Department of Physiology and Biophysics)

**Professors (Clinical)**

Eugene Myron Brieker, M.D., Washington University, 1934.

James Barrett Brown, M.D., Washington University, 1923.

Thomas H. Burford (Thoracic Surgery), A.B., University of Missouri, 1931; B.S. in Medicine, 1933; M.D., Yale University, 1936.

Louis T. Byars, B.S., University of Arkansas, 1928; M.D., Washington University, 1932.

Leonard Thompson Furlow (Neurological Surgery), B.S., Emory University, 1928; M.D., 1925.

H. Relton McCarroll (Orthopedic Surgery), A.B., Ouachita College, 1927; M.D., Washington University, 1931.

**Professors Emeriti (Clinical)**

Glover H. Copher, A.B., University of Missouri, 1916; M.D., Washington University, 1918.

Peter Heinbecker, B.A., McGill University, 1918; M.D., 1921.


**Lecturer**

Henry W. Crouch (Clinical Anesthesiology), B.S., Military College of South Carolina, 1922; M.D., Medical College of South Carolina, 1927.
Associate Professors

Harvey R. Bernard, M.D., Washington University, 1947.
William R. Cole, A.B., University of Missouri, 1948; M.D., Washington University, 1952; D.Sc., University of Cincinnati, 1959. (City Hospital)
William S. Coxe (Neurological Surgery), B.S., Hampden-Sydney College, 1945; M.D., Johns Hopkins Medical School, 1948.
Paul R. Hackett (Anesthesiology), B.A., Denison University, 1945; M.D., Western Reserve University, 1949.
William T. Newton, B.S., Yale University, 1947; M.D., 1950. (Cochran Veterans Administration Hospital)
William E. Powers (Radiation Therapy), B.S., University of Illinois, 1949; M.D., 1951. (See Department of Radiology)
John S. Spratt, Jr., M.D., Southwestern Medical School of the University of Texas, 1952. (Ellis Fischel State Cancer Hospital)
Warren G. Stamp (Orthopedic Surgery), B.S., Westmar College, 1949; M.D., State University of Iowa, 1952. (U.S.P.H.S. Special Fellow in Orthopedic Surgery) (July 1 to December 31, 1966)
Jessie L. Ternberg, A.B., Grinnell College, 1946; Ph.D., University of Texas, 1950; M.D., Washington University, 1953.
Theodore E. Weichselbaum (Experimental Surgery) (Biochemistry), B.S., Emory University, 1930; Ph.D., University of Edinburgh (Scotland), 1935.

Associate Professors (Clinical)

Morris Abrams (G. U. Surgery), B.S., University of Illinois, 1934; M.D., 1937.
Robert Wilson Bartlett, B.S., University of Michigan, 1926; M.D., 1930.
Minot P. Fryer, A.B., Brown University, 1936; M.D., Johns Hopkins University, 1940.
Frank McDowell, A.B., Drury College, 1932; M.D., Washington University, 1936. (On leave of absence)

Assistant Professors

William T. Bowles (Urology), M.D., Stanford University, 1955.
Donald J. Dickler (Anesthesiology), B.A., New York University, 1942; M.D., New York University College of Medicine, 1945. (Jewish Hospital)
Bela I. Hatfalvi (Anesthesiology), M.D., M. Kir. Tisza Istvan Tudomanyegyetem (Hungary), 1938.
Raymond W. Kelton (Division of General Medical Sciences Trainee), B.S., Drury College, 1950; M.D., Washington University, 1957.
William W. Monafo (National Institute of General Medical Sciences Trainee), B.A., Harvard University, 1953; M.D., Tufts University, 1957.
Kenneth D. Serkes, B.S., Yale University, 1950; M.D., Washington University, 1951. (Jewish Hospital)
Andrew D. Spencer, A.B., Indiana University, 1951; M.D., 1954. (Homer G. Phillips Hospital)
Lewis J. Thomas (Anesthesiology), B.S., Haverford College, 1953; M.D., Washington University, 1957. (On leave of absence)
Glenn R. Weygandt (Anesthesiology), M.D., Washington University, 1947.
Granville J. Womack, B.S., Oklahoma City University, 1949; M.D., University of Oklahoma, 1952. (McDonnell Aircraft Corp.)
Cyril J. Costello, B.S., University of Texas, 1935; M.D., 1939.

Heinz Haffner, B.S., University of Arizona, 1931; M.D., Washington University, 1935.

Oscar Perry Hampton, Jr. (Orthopedic Surgery), M.D., University of Tennessee, 1928.

Carl J. Heifetz, B.S., Washington University, 1927; M.D., 1929.

Carl Edward Lischer, A.B., University of California, 1933; M.D., Washington University, 1937.

James Otto Lottes (Orthopedic Surgery), Ph.B., St. Louis College of Pharmacy, 1926; Ph.G., 1928; A.B., University of Missouri, 1934; B.S., 1935; M.D., University of Louisville, 1937.

C. Alan McAfee, B.S., Washington State College, 1938; M.D., Washington University, 1942.

Harry C. Morgan (Orthopedic Surgery), A.B., University of Missouri, 1949; B.S., 1951; M.D., Harvard University, 1953.

Lawrence W. O'Neal, M.D., Washington University, 1946.


Robert Killian Royce (G.U. Surgery), B.S., University of Mississippi, 1939; M.D., Washington University, 1942.

Leo Aaron Sachar, A.B., Washington University, 1956; M.D., 1940.


Carl A. Wattenberg (G.U. Surgery), A.B., University of Kansas, 1934; M.D., 1937.

Consultant

Leroy W. Peterson (Oral Surgery), D.D.S., University of Michigan, 1940.

Instructors

Sedat Mehmet Ayata (Anesthesiology), B.S., Istanbul Lyceum, 1949; M.D., University of Istanbul, 1955. (Jewish Hospital)

Galen B. Cook, A.B., Washington University, 1951; M.D., 1955. (Ellis Fischel State Cancer Hospital)

Charles H. Dart, Jr., (Thoracic Surgery), B.S., University of Missouri, 1954; M.D., Washington University, 1956. (Jewish Hospital)

Alberto de Jesus (Anesthesiology), B.S., Universidad Autonoma de Gaudalajara, 1955; M.D., Universidad Nacional de Mexico, 1959.

Burl M. Dillard, M.D., University of Texas, Southwestern Medical School, 1958. (City Hospital)

Robert C. Donaldson, A.B., University of Missouri, 1941; M.D., Washington University, 1944. (Cochran Veterans Administration Hospital)

William L. Donegan, B.A., Yale University, 1955; M.D., Yale University, 1969. (Ellis Fischel State Cancer Hospital)

Paul L. Friedman (Anesthesiology), A.B., Washington University, 1953; M.D., 1957. (Jewish Hospital)

Marcy Allen Goldstein, M.D., Washington University, 1951. (Jewish Hospital)


Ralph J. Graff, M.D., Washington University, 1957. (Jewish Hospital)

A. Basil Harris (Neurological Surgery), A.B., Birmingham-Southern College, 1950; M.D., Medical College of Alabama, 1954. (See Department of Neurology)

Robert B. Holloway (Anesthesiology), B.S., LeMoyne College, 1952; M.D., Meharry Medical College, 1956 (Cochran Veterans Administration Hospital)

M. Richard Katz, A.B., Washington University, 1952; M.D., 1955 (Jewish Hospital)

Hugh F. S. Keister (Anesthesiology), A. B., Washington University, 1955; M.D., 1959. (Jewish Hospital)

Nicholas T. Kouchoukos (USPHS Clinical Trainee), M.D., Washington University, 1961.

Dan B. Moore, A.B., Knox College, 1951; M.D., Washington University, 1955. (Jewish Hospital)


William Shieber, M.D., Washington University, 1953. (Jewish Hospital)

Irvin C. Susman (Anesthesiology), M.D., University of Illinois, 1949. (Jewish Hospital)
Research Instructors

Dorothy P. Enright (Chemistry), B.S., University of Alabama, 1943; M.S., Pennsylvania State College, 1948.

Harry W. Margraf, M.S., Polytechnicum, Milan, Italy, 1942.

Instructors (Clinical)

Robert Anschuetz, M.D., Washington University, 1940.

J. Byron Beare (G.U. Surgery), B.S., St. Louis University, 1935; M.D., 1939; M.S., University of Minnesota, 1947.

Vilray P. Blair, Jr. (Orthopedic Surgery), M.D., Washington University, 1939.


Arthur R. Dalton, B.S., University of Missouri, 1938; B.S., Med., Northwestern University, 1940; M.D., 1941.

Francis G. Duffy (Anesthesiology), M.B., B.Ch., B.A.O., University College of Dublin, 1951.

Clarence Eckert, M.D., St. Louis University, 1927.

Virgil Otto Fish, M.D., Washington University, 1930.

Lee T. Ford, Jr. (Orthopedic Surgery), M.D., University of Tennessee, 1940.


Edward C. Holscher (Orthopedic Surgery), A.B., University of Missouri, 1931; B.S., 1933; M.D., Harvard University, 1935.

Earl P. Holt, Jr. (Orthopedic Surgery), A.B., Duke University, 1942; M.D., 1945.

Saul Klein (Genitourinary Surgery), M.D., Syracuse University Medical Center, 1959. (On leave of absence)


Syracuse University Medical Center, 1959.


Stanley M. Leydig (Orthopedic Surgery), B.A., Montana State University, 1930; M.D., Washington University, 1934.

Howard S. Liang (Anesthesiology), M.D., National Sun Yat-sen University College of Medicine (Canton, China), 1960.

Marvin Miskin (Orthopedic Surgery), M.D., University of Illinois, 1955.

George A. Oliver, A.B., Washington University, 1948; M.D., 1952.


Joseph C. Peden, Jr., B.S., Harvard University, 1940; M.D., 1943.

Mather Pleffenberger, Jr., A.B., Yale University, 1941; M.D., Harvard University, 1944.

Daniel W. Platt (Anesthesiology), M.D., Chicago Medical College, 1949.

Joseph A. Reinkemeyer (G.U. Surgery), M.D., St. Louis University, 1961.

Frank O. Richards, A.B., Talladega College, 1944; M.D., Howard University, 1947.

George Scheer (Orthopedic Surgery), A.B., Municipal University of Wichita, 1940; M.D., Washington University, 1943.

Sam F. Schneider, A.B., Washington University, 1932; M.D., 1936.


Richard G. Sisson, A.B., Harvard University, 1943; M.D., Yale University, 1946.


James M. Whittico, M.D., Meharry Medical College, 1940.

Assistants

Duane A. Catterson, B.S., University of Colorado, 1951; M.D., 1955; M.S., Ohio State University, 1961. (National Aeronautic and Space Administration)
D. Owen Coons, M.D., University of Toronto, 1948; Ph.M., Harvard, 1956. (National Aeronautics and Space Administration)

G. Fred Kelly, M.D., Louisiana State University, 1951. (National Aeronautics and Space Administration)

John L. Moore, B.S., Bates College, 1952; M.D., Columbia University, 1956. (National Aeronautics and Space Administration)

F. Eugene Tubbs, M.D., Emory University, 1961. (National Aeronautics and Space Administration)

George C. Wec, M.D., University of Louisville, 1931. (Jefferson Barracks Veterans Administration Hospital)

Research Assistants

Leon Ashford, B.S., Lincoln University 1953.

Cathrine F. Frei, A.B., Washington University 1931; M.S., St. Louis University, 1936.

Margie E. House, B.A., Valparaiso University, 1950.

Assistants (Clinical)


Clarence M. Beagle, M.D., Washington University, 1958.

Leslie F. Bond, A.B., University of Illinois, 1948; M.D., Meharry Medical College, 1952.

Richard V. Bradley, M.D., Washington University, 1952.

Katherine Jean Crawford, B.S., Michigan State College, 1942; M.D., Woman's Medical College of Pennsylvania, 1946.

James R. Criscione, B.S., Youngstown University, 1943; M.D., St. Louis University, 1951.


Fleming B. Harper, M.D., Medical College of Virginia, 1950.

Frederick W. Kline, A.B., University of Missouri, 1938; M.D., Washington University, 1942. (See Department of Physiology)

Allen P. Klippel, A.B., Amherst College, 1944; M.D., St. Louis University, 1946.

Jules H. Kopp (G.U. Surgery), M.D., University of Arkansas, 1931.


Samuel Lugo, B.S., St. Louis University, 1954; M.D., 1958.


Lester J. Nathan, B.A., University of Omaha, 1949; M.D., University of Nebraska, 1952.


George B. Rader, M.D., Washington University, 1951.

Robert Rainey, B.S., Yale University, 1944; M.D., Washington University, 1947.


George Tucker, A.B., Columbia University, 1952; M.D., Harvard University, 1956.

SECOND YEAR

Introduction to Surgery. A lecture course which presents certain fundamental principles of physiology, biochemistry, and pathology as applied to surgery. Recitations, demonstrations, and clinics to amplify the lectures are included. One hour weekly for twelve weeks during the second and third trimesters of the second year. (Part of Conjoint Medicine.)
THIRD YEAR

*Surgical Clinic.* A weekly exercise throughout two trimesters. These clinics serve as a general introduction to the surgical specialties and to anesthesiology.

(Surgery Staff)

*Surgical Wards.* For six weeks the student serves as a clerk in general surgery, working on the wards of the hospitals of the Medical Center. The students take the case histories and make the physical examinations and the usual laboratory examinations on the patients assigned to them. They assist at the operations and do some of the surgical dressings. Surgical pathological material is followed as an integral part of the case study. At regular intervals the students meet with residents and assistant residents in informal conferences, when questions which have arisen during the day are discussed and various aspects of the care of the patient considered. They follow their patients after discharge in the postoperative and out-patient clinic. Particular effort is made to see that the student has some experience with the more frequent and important surgical lesions, and that the cases assigned to him are sufficiently diversified to afford him an accurate perspective of surgery. The student is encouraged to consult the library frequently in the solution of problems concerning his patient. One afternoon a week the student participates in the tumor clinic and attends a tumor conference held jointly by the Departments of Surgery, Surgical Pathology, and Radiology. Students may attend the general surgery staff conferences held on Tuesdays at 4:00 p.m. (Staff)

FOURTH YEAR

*Surgical Clerkship.* Twelve weeks. Two weeks in each of the following: Neurological Surgery, Genitourinary Surgery, Thoracic Surgery, Orthopedic Surgery, Emergency Room Service, and Anesthesiology. During this trimester all students attend the general staff rounds, Tuesday at 4:00 p.m.

*Genitourinary Surgery*

Complete history, physical examination, and urologic work-up on all ward and semi-private patients, including assisting in cystoscopic study and surgery. Patients are assigned in rotation. Grand rounds, two hours weekly, Dr. Cordonnier and Staff. Pyelogram conference, five hours weekly, Drs. Cordonnier, Bowles and Koehler. Didactic study of special urologic subjects, one hour weekly, Drs. Cordonnier and Bowles. Three hours weekly are spent in the outpatient clinic.

*Neurological Surgery*

1. Admission history and physical examination of all new patients (ward and private) in rotation.
2. Progress notes on all patients (except infants ward, Children’s Hospital).
3. All clinical microscopy and laboratory work on ward patients (except infants ward, Children’s Hospital).
4. Perform minor diagnostic procedures on ward patients (lumbar punctures, visual fields, etc.) with supervision.

5. Attend neurosurgery clinics (Monday and Thursday afternoons and Saturday mornings) and work up all patients.

6. Attend morning rounds, 8:00 to 9:00 a.m. six days a week.*

7. Attend neuropathology and neurology-neurosurgery conferences, Wednesday afternoons, 2:00 to 5:00 p.m.

8. Attend (optional) grand rounds, Fridays, 4:00 to 5:30 p.m.

Anesthesiology

Clerks will make pre-operative rounds on patients who have been assigned to them and assess the risk pertaining to anesthesia and surgery. All types of commonly used anesthetic agents and techniques will be used under supervision. A postoperative summary will be submitted on all patients whom the clerk attends. Clerks will also assist in the intensive care of comatose patients and patients with respiratory and circulatory problems. Attendance at all regularly scheduled anesthesia conferences and surgical grand rounds is mandatory unless specifically excused for clinical duties.

Thoracic Surgery

During the clinical clerkship on thoracic and cardiovascular surgery each student has an opportunity to examine and evaluate a number of patients and to compare his finding with the actual pathology, both at endoscopy and at surgery, and finally to study the pathological material.

The following is representative of the student participation and didactic instruction on the Chest Service:

1. 6:30 a.m. Ward rounds with the resident staff.
2. 7:30 a.m. Attend endoscopy.
   A. Bronchoscopy, esophagoscopy, and minor diagnostic procedures.
   B. Assist the resident staff on the wards in thoracenteses, dressing changes, etc.
   C. Observe in the operating room on their cases.
3. 8:30 a.m. Morning seminars held with the Fellows in Thoracic Surgery, with student case presentation and discussion of interesting thoracic and cardiac problems.
4. 1:30 p.m. Daily diagnostic conference, with review of postoperative cases and evaluation of diagnostic thoracic and cardiovascular problems. Occasionally this conference is combined with an X-ray diagnostic conference.

* Students present their own cases.
5. 3:30 p.m. Afternoon ward rounds with the resident staff. Emphasis is placed on bedside teaching and interesting cases are discussed by the Fellows in Thoracic Surgery.

In addition the students are required to attend the weekly cardiac catheterization and angiography conference held in conjunction with the Radiology Department and the Department of Medicine (Cardiology), and a monthly Pathology conference, where operative deaths and interesting cases are reviewed. The morbid and microscopic anatomy is presented by the Department of Pathology.

There is ample opportunity for interested students to participate in current research projects of members of the Department.

Orthopedic Surgery–Emergency Room Service

During the junior year the students receive a series of basic lectures regarding the principles of orthopedic surgery. A four-week period is scheduled during the senior year that includes one week at the St. Louis City Hospital on the Fracture and Emergency Room Service, one week at the Shriners Hospital for Crippled Children, and two weeks at the Barnes and Allied Hospitals, including St. Louis Children’s Hospital. In addition to X-ray and pathology conferences, the students attend the Orthopedic Out-Patient Clinic five afternoons a week. In addition, they are assigned hospitalized patients on both the private and ward services.

Elective Courses

50. Washington University Clinics. General surgery, six weeks for four students, mornings. Students will serve as clerks to out-patients, the time being spent in the study and care of the patients, with special attention to minor surgical procedures.

51. (511) Research in Surgery. Six weeks, full time. For those students who carried on surgical research in their spare time during the previous year and who wish to devote their entire time toward the completion of their problems.

52. State Cancer Hospital. Four students to serve as clinical clerks at the State Cancer Hospital, Columbia, Missouri, full time for six weeks. The duties assigned will be the routine duties required of any clinical clerk, consisting of both in- and outpatient work, particularly related to malignant diseases.

53. Specialty or General Surgery Clerkships. Clerkships for six weeks may be individually arranged by the students.

54. Senior Elective in Surgery at St. Luke’s Hospital. These externships offer six weeks of intensive clinical experience, with the duties and responsibilities of interns, working closely with interns and residents. While these externships emphasize bedside experience, they are so regulated as to permit full participation in the hospital curriculum of seminars, discussions, clinical-physiological and clinical-pathological conferences.

(Dr. Robert Paine)
Medical Jurisprudence. A course given in the fourth year embracing medical evidence and testimony, expert testimony; dying declarations; rights of medical witnesses; establishing identity from living and dead bodies, sudden death from natural causes and by violence; criminal acts determined by medical knowledge; the legal relation of physician to patients and the public; insanity; and malpractice. 9 hours.

(Mr. Orville Richardson)
A research team working with the LINC (Laboratory Instrument Computer).

BIOMEDICAL COMPUTER LABORATORY

The Biomedical Computer Laboratory collaborates with research investigators in the application of modern information-processing techniques to problems in biology and medicine. Research and training is offered to medical students and graduate students in applications of mathematical techniques to biomedical problems and in applications concerning information processing in the research laboratory.

Currently one of the foremost aids in laboratory applications of digital computers is the LINC (Laboratory Instrument Computer), a small stored-program computer which was designed specifically for the biology laboratory. There are nine LINC computers in the Washington University community. Six are available to BCL, with one of them connected by telephone lines to an IBM 360-50 at the Washington University Computation Center.
Professor and Director of the Laboratory
Jerome R. Cox, Jr., S.B., Massachusetts Institute of Technology, 1947; S.M., 1948; Sc.D., 1954. (See Departments of Physiology and Biophysics and Electrical Engineering)

Associate Professor
Richard A. Dammkoehler, B.S.I.E., Washington University, 1956; M.S.I.E. 1959. (See Department of Applied Mathematics and Computer Science)

Assistant Professor and Assistant Director of the Laboratory
George S. Whitlow, Jr., B.S., Washington University, 1957. (See Department of Applied Mathematics and Computer Science)

SECOND YEAR

Elective. Operating principles of digital computers, programming the LINC, fundamentals of FORTRAN, applications of mathematics to selected problems in medicine and practical experience in the use of computers.

Externships in Biomedical Computing of two or three months' duration are offered during the summer for students who have completed the first year of the Medical School curriculum. Opportunities to carry out research are also available to graduate students on a year-round basis.
DIVISION OF GERONTOLOGY

The Division of Gerontology is located at the St. Louis Chronic Hospital, 5600 Arsenal Street. The Division conducts a research laboratory at the Hospital.

Through a bequest from the late Mrs. Ina Champ Urbauer, a fund has been established for research in gerontology and allied fields.

**Director of Research**
John Eshen Kirk, M.D., University of Copenhagen, 1929. (See Department of Medicine)

**Research Instructor**
Teofíl Kheim, M.D., University of Budapest, 1934.

INSTITUTE OF NEUROLOGY

The Beaumont-May Institute of Neurology was established in 1955 by gifts from the Louis D. Beaumont Foundation, Mr. Morton J. May, and the late Mrs. Charles M. Rice. It is the purpose of the Institute to foster basic and clinical research in Neurology with special reference to defects in the structuring of the nerve cell which occasion important neurological disorders having a high incidence of prolonged disability.

DIVISION OF TUMOR SERVICES

**Cancer Co-ordinator and Director of Division of Tumor Services**
Harvey R. Butcher, A.B., Central College, 1941; M.D., Harvard University, 1944

The Division of Tumor Services was organized as a co-ordinating committee for the Cancer Teaching Program. Inasmuch as cancer, as other subjects in the medical curriculum, is given in a departmental manner, the Tumor Clinic is the principal site on which this Service functions. An attempt is made in this center to give a supplementary picture of the cancer problem as it exists today. In the senior year, time is allotted from the period on gynecology and surgery for work in this clinic. The Tumor Conference, which is held for one-third of the senior class, postgraduate students, and visitors each week, serves the purpose of demonstrating some of the more complex problems in diagnosis and therapy which arise in patients with malignant disease.
EXECUTIVE COMMITTEE
Edward Reinhard..................................................Internal Medicine
A. Norman Arneson................................................Obstetrics and Gynecology
Theodore Sanders................................................Ophthalmology
Joseph H. Ogura..................................................Otolaryngology
Lauren V. Ackerman.............................................Pathology
Teresa Vietti.........................................................Pediatrics
William Powers.....................................................Radiology
Harvey Butcher, Chairman......................................Surgery

WILLIAM GREENLEAF ELIOT DIVISION OF CHILD PSYCHIATRY

Director and Blanche F. Ittleson
Professor

Director of the Child Psychiatry Clinics and Assistant Professor of Child Psychiatry
Thomas C. Brugger, B.S., University of Wisconsin, 1950; M.D., 1953.

Assistant Professors
Loretta Cass (Medical Psychology), B.A., Colorado College, 1934; M.A., 1942; Ph.D., Ohio State University, 1950. (See Department of Psychiatry)

Assistant Professors (Clinical)
Roy M. Mendelsohn (Child Psychiatry), B.S., University of Illinois, 1950; M.D., 1952.
Paul H. Painter (Child Psychiatry), M.D., St. Louis University, 1947. (See Department of Pediatrics)

Consultant
Eleanor T. Kenney (Medical Psychology), A.B., Bryn Mawr College, 1937; Ph.D., Washington University, 1964.

Instructors
Gabrielle Casebier (Speech Correction), B.S., University of Illinois, 1942; M.A., 1942; Ph.D., University of Wisconsin, 1961.
John B. Lewis (Medical Psychology), B.S., Northwestern University, 1949; M.S.W., Washington University, 1952.
Marilyn Voerg (Medical Psychiatry), B.A., University of Florida, 1950; Ph.D., 1964.

Instructor Emeritus and Lecturer
Louetta Berger (Psychiatric Social Work), B.S., University of Wichita, 1941; M.S.W., Washington University, 1946.

Instructors (Clinical)
Sophia P. McCay (Child Psychiatry), B.S., University of Denver, 1949; M.D., University of Colorado, 1959.
Saul Niedorf (Child Psychiatry), B.A., University of California at Los Angeles, 1952; C.S.W., 1953; M.D., University of Geneva, 1959.
Edith C. Robinson (Child Psychiatry), A.B., Randolph-Macon College, 1927; M.S., University of South Carolina, 1928; M.D., Johns Hopkins University, 1932.
Instructor Emeritus (Clinical)
Paul Edward Kubitschek (Child Psychiatry), B.S., Creighton University, 1918; M.D., 1922; D.Sc., University of Pennsylvania, 1928. (See Department of Pediatrics)

Assistants
Jane E. Landsbaum (Medical Psychology), A.B., Washington University, 1961.
Mary Anne Mercer (Psychiatric Social Work), B.A., D'Youville College, 1959; M.S.W., St. Louis University, 1961.
Phyllis B. Rubin (Education), A.B., Washington University, 1965.

Lecturer
Robert E. Lefton (Medical Psychology), A.B., Washington University, 1953; Ph.D., 1958.

The Division of Child Psychiatry offers a varied teaching program for residents in Psychiatry and Fellows in Child Psychiatry through its Child Psychiatry Clinics and school for emotionally disturbed children at 369 North Taylor Avenue, the Steinberg In-patient Division of Child Psychiatry at the Jewish Hospital, the St. Louis County Division of Mental Diseases, and the Youth Center for adolescents at the St. Louis State Hospital. Trainees are assigned to these various units where they participate in complete diagnostic evaluations and see patients in psychotherapy under the supervision of the unit director and the Professor of Child Psychiatry. Seminars in individual and group psychotherapy, psychology, social work, and research are held weekly at the Division building on Taylor Avenue, and opportunity is provided for observation through a one-way screen of psychological testing and group and individual psychotherapy. Fellows are encouraged to participate in small research projects.
DIVISION OF AUXILIARY MEDICAL SERVICES

The Division of Auxiliary Medical Services of the School of Medicine provides instruction and training in professions associated with medicine and necessary to the physician in providing modern health care.

As with the educational program of the medical student, the Division of Auxiliary Medical Services is a joint enterprise of the School of Medicine and the affiliated hospitals—Barnes, Children's, McMillan, and Maternity Hospitals. As a matter of convenience some departments are administered by the School and others by the Barnes Hospital.

Departments conducted by the School of Medicine include Hospital Administration, Occupational Therapy, and Physical Therapy. Schools operated by the Barnes Hospital include Medical Dietetics and Anesthesiology. All of the courses are approved by the American Medical Association or other certifying agencies and graduates are admitted to examinations. For further information write the Director of the Department or School, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, Missouri 63110.

DEPARTMENT OF HOSPITAL ADMINISTRATION

Professor
Frank R. Bradley, M.D., Washington University, 1923; LL.D., Central College, 1943.

Assistant Professor and Director
Donald J. Horsh, B.S., University of Nebraska, 1941; M.H.A., Washington University 1951; LL.B., St. Louis University, 1953.

Assistant Professors
David A. Gee, B.S., DePauw University, 1949; M.H.A., Washington University, 1951.

Lecturers
Gerald Aldridge (Financial Control), B.A., University of Denver, 1949; M.H.A., Washington University, 1951.
Hollis Allen (Medical Specialties), B.S., St. Louis University, 1924; M.D., 1926.

William H. Bedell (Personnel Health Facilities), A.B., Princeton University; M.A., New York University.
Louis Belinson (Mental Diseases), M.D., Rush Medical College, 1935.
Albert Boulenger, B.S., Bowling Green State University, 1951; M.H.A., Washington University, 1953.
Ted Bowen, B.S., Austin State Teachers College, 1941; M.H.A., Washington University, 1948.
George Allen Bowles (Hospital Chaplaincy), A.B., Southern Methodist University, 1927; B.D., 1930; D.D., Central College, 1952.
Clyde Caldwell (Hospital Launderies).
James Claywell (Maintenance Engineering), B.S.M.E., Washington University, 1959.
Richmond C. Coburn (Hospital Trustees), A.B., University of Missouri, 1924; LL.B. 1925.
DIVISION OF AUXILIARY MEDICAL SERVICES

Doris Cook (Hospital Dietetics), B.S., University of Illinois, 1934.

F. G. Dickey, A.B., Johns Hopkins University, 1931; M.D., University of Maryland, 1935.


Frank S. Groner, A.B., Baylor University, 1934; I.L.D., Baptist College, 1946.

Josephine M. Hackett (Nursing Department), B.S., Avilla College, 1938; M.S., St. Louis University, 1960.


James Harvey, B.A., University of South Dakota, 1950; M.H.A., University of Minnesota, 1952.

Dean Hayden, C.R.N.A.

William Henry (Radiology Equipment), B.A., University of Kansas City, 1938.

Lilly Hoekstra, R.N., Washington University, 1933; B.S., 1947.

Joseph Holland (Hospital Press Relationship)


Robert S. Hoyt (Hospital Purchasing).


Cecilia Kiel, R.R.L.

Cornelia S. Knowles, R.N., Washington University, 1925.

Ted Lloyd (State Hospital Association Activities).

Curtis H. Lohr, B.S., Washington University, 1920; M.D., 1922.

Eugene J. Mackey (Hospital Architecture), Bachelor of Architecture, Carnegie Institute of Technology, 1936; Master of Architecture, Massachusetts Institute of Technology, 1939.

Gerald Malloy, Ph.B., Marquette University, 1950; LL.B., 1953; M.H.A., St. Louis University, 1955.

Elizabeth McIntosh (Nursing Department), A.B., Searritt College, 1930; B.S., University of Pennsylvania, 1942; M.S., Western Reserve University, 1947.

Florence Mueller (Hospital Pharmacy), B.S., Fontbonne College; Ph.G., St. Louis College of Pharmacy, 1931.

Paul I. Robinson, B.S., Washington University, 1926; M.D., 1928.

J. Earl Smith (Public Health), M.D., St. Louis University, 1926.

Albert Spradling, Jr. (Government Relations), LL.B., University of Missouri, 1942.

Crofford O. Vermillion, A.B., DePauw University, 1939; M.D., Washington University, 1947.

Hugh Vickerstaff, B.S., University of Iowa, 1940; M.H.A., Washington University, 1951.

John Warnbrodt, B.S., St. Louis University.

John Warner, B.S., St. Louis University, 1948; M.H.A., 1954.


A two-year course leading to a certificate or the degree of Master of Hospital Administration. The first year is given on the main campus of the University and at the School of Medicine, and includes courses in accounting and statistics, social work, public health, and hospital administration. The second year is spent in field work in an approved hospital. A degree is conferred on completion of a satisfactory thesis.
DIVISION OF AUXILIARY MEDICAL SERVICES

Applicants must hold a bachelor's degree or be graduates of an approved school of medicine.

Tuition (academic year) $1,600.00
Tuition (clinical year) 300.00
Student Health Fee (academic year) 90.00
Late Registration Fee 5.00

DEPARTMENT OF OCCUPATIONAL THERAPY

Assistant Professor and Elias Michael Director of the Department
Martha E. Matthews, A.B., Winthrop College, 1933.

Assistant Professor and Associate Director of the Department in Charge of Clinical Training
Elizabeth Withers, B.S., Memphis State University, 1957; M.A., 1959.

Lecturer Emeritus

Instructors
Margaret S. Nelson, B.S., Ohio State University, 1956; M.S., San Jose State College, 1966.
Garth D. Tubbs, B.S., Wisconsin State College, 1953.

Instructor Emeritus
Ada Wells Ford.

Assistant
Mary Jane Fehr, B.S., University of Wisconsin 1960.

The degree of Bachelor of Science in Occupational Therapy is conferred upon the completion of three academic semesters at the School of Medicine and nine months of supervised clinical application. During the academic and clinical programs, emphasis is placed on the patient's physical and psychological problems resulting from disease and trauma. Basic understanding of the techniques of creative, manual, and prevocational media and how these are correlated therapeutically to provide desired treatment are stressed.

The role of occupational therapy as it functions with various medical and social resources within the broad concepts of patient rehabilitation is an important part of the course.

The curriculum includes: sciences such as anatomy, physiology, psychology, and neurology; clinical subjects such as general medicine, orthopedics, and psychiatry; interpretation of principles and practices of occupational therapy; technical instruction in manual, creative, and prevocational activities. The period of supervised clinical application is spent in approved affiliation centers.
Applicants must present sixty semester hours of college credit, including a specified number of units in English, biology, physical science, psychology, and sociology.

Candidates for B.S. degree

Tuition (three semesters), per semester ........................................ $800.00
Student Health Fee (three semesters), per semester ......................... 45.00
Tuition (clinical year), per year ..................................................... 550.00
Late Registration Fee ................................................................. 5.00

DEPARTMENT OF PHYSICAL THERAPY

Assistant Professor and Director of the Department

Assistant Professor and Assistant Director
D. LaVonne Jaeger, B.S., University of Minnesota, 1951.

Assistant Professor
Lorraine F. Lake, B.S., Washington University, 1951; M.S., University of Illinois, 1954; Ph.D., 1962. (See Department of Anatomy and Institute of Rehabilitation)

Instructor
Isabelle M. Bohman, B.S., Skidmore College, 1951; M.S., University of Illinois, 1954.

Lecturer
Robert Hickock, B.S., Washington University, 1953.

The program of instruction in physical therapy in the School of Medicine consists of the junior and senior years of a four-year college curriculum leading to the degree of Bachelor of Science in Physical Therapy.

Students entering this program must have satisfactorily completed sixty semester hours in an accredited college or university. Required are courses in English composition, literature, psychology, and the physical, biological, and social sciences.

The program in the School of Medicine includes courses in the basic medical sciences, medical and surgical lectures as applied to the practice of physical therapy, theory and application of physical therapy procedures, and a minimum of 800 hours of clinical experience.

The aim of the program is the development of competent physical therapists whose broad cultural background and thorough professional training prepare them to accept the appropriate responsibilities in the comprehensive care program of modern medicine.

Tuition (three semesters), per semester ........................................ $800.00
Tuition (final semester) ............................................................. 550.00
Student Health Fee, per semester ............................................... 45.00
Late Registration Fee ............................................................... 5.00
SCHOOL OF X-RAY TECHNOLOGY

A course for X-ray technicians is offered by the Edward Mallinckrodt Institute of Radiology. The course will cover by lectures and group discussions the following subjects: Anatomy and Physiology; Radiographic Technic; Radiation Physics; Darkroom Processing Procedures; Nursing Procedures; Administration; Radiation Therapy; Professional Ethics.

The course is two years in length. On satisfactory completion of the first year’s work, the student will be assigned to tours of duty in the various sections of diagnostic and therapeutic disciplines for practical experience, and during the second year will be paid a monthly stipend of $50.00. A certificate is given at the end of the second year.

Candidates for admission must present evidence of successful completion of four years’ education in an accredited high school. Special consideration will be given to graduates of schools of nursing which are recognized by the State Board of Nurse Examiners and to students who have passed college entrance examinations for admission to an accredited college or university. A student health fee of $90.00 a year will be charged.

SCHOOL OF DIETETICS

Doris Cook, B.S........................................................Director
Helen Starch, B.S..............................................Educational Director

A twelve-month course for the training of dietitians leading to a certificate, and eligibility for membership in The American Dietetic Association.

The course includes theoretical and practical training in food service and personnel administration, food service cost and control, diet therapy, teaching nutrition, outpatient instruction, and affiliation with the St. Louis Children’s Hospital.

A bachelor’s degree from an accredited college or university is required for admission. Certain courses in chemistry, biology, social science, education, food, nutrition and dietetics, and institutional management are essential.

There is no tuition fee, but a matriculation fee of $10.00 must be deposited as soon as an application is accepted. Maintenance is provided. A monthly stipend of $50.00 is paid.
SCHOOL OF ANESTHESIA FOR NURSE ANESTHETISTS

Mrs. Dean E. Hayden, R.N. ................................................................. Director
Miss Louise Grove, R.N. ................................................................. Educational Director

A twenty-four-month course for special training in the practical administration of anesthetics by approved medical techniques, and the theory underlying their skilled administration. Upon satisfactory completion of the course, a certificate is awarded.

The theoretical aspect of the subject is covered by specific periods of organized instruction. Instruction in the practical administration of anesthetics takes place in the operating rooms, where at first the student observes, then administers anesthetics under an instructor's supervision, and eventually conducts complete anesthesias upon her own responsibility.

The course is open to graduates of accredited schools of nursing. The tuition is $200.00. Full maintenance is provided. A stipend of $50.00 per month is paid after six months, $150.00 per month after twelve months, and $400.00 per month without maintenance after eighteen months.
The Alumni Association, whose membership is made up of all graduates of the School of Medicine and all members of the faculty, is active in its support of the School and of the student body. Each year a welcoming party is given for the incoming freshman class and, prior to Commencement, the Association sponsors the annual Alumni banquet, at which the graduating seniors are guests. A reunion is held on that day, featuring a scientific program presented by graduates and faculty members, and a buffet luncheon at which the Alumni and senior students are guests of the School of Medicine and its faculty.

Each year the Medical Alumni Association sponsors a luncheon for local high school students who are especially talented in science and who have indicated a desire to attend medical school. The Alumni Office also prepares and distributes a schedule of conferences, a list by departments of the meetings in the Medical Group which are open to physician attendance.

The Association maintains an emergency loan fund for students and, through the commemorative donations made by the class celebrating its twenty-fifth reunion each year, provides a source of important financial aid for the School.

The Board of Trustees of the University includes a representative from the Medical Alumni.

In 1965-66 the officers of the Washington University Medical Alumni Association were Ray D. Williams '37, president; C. Alan McAfee, '42, president-elect; John E. Hobbs, '27, vice-president; and Richard V. Bradley, '52, secretary-treasurer.

Left to right: Richard V. Bradley, Ray D. Williams, and C. Alan McAfee
PRIZES AWARDED 1964-1965

Gill Prizes in Anatomy
David Stabenow, B.S.

Chouké Prize in Anatomy
David Stabenow, B.S.

Biochemistry Prizes
Jere Cravens, B.S.
Thomas Halperin, A.B.
David Stabenow, B.S.

St. Louis Pediatrics Society Senior Prize
H. Byron Rogers, B.S.

Sidney I. Schwab Book Prizes
Robert Baldwin Telfer, B.S.
Dennis Patrick Cantwell, B.S.
James Roy Morrison, B.A.

Borden Undergraduate Research Award
Marshall Alan Permutt, B.A.

Alpha Omega Alpha Book Prize
Richard Stanton Myers, B.A.

Prize of the Medical Fund Society in Medicine
Joseph Avruch, B.S.

Prize of the Medical Fund Society in Surgery
Albert Henry Krause, Jr., B.S.

McCordock Book Prize
Michael J. Specter

Roche Award
Michael Jacobs

Medical Alumni Fund Scholarship
William Gerald Wood, B.S.

Missouri State Medical Association Annual Award
Glenn Leland Melson, II, B.A.

Bronfenbrenner Memorial Award
Robert Baldwin Telfer, B.S.

Dr. Richard S. Brookings Medical School Prizes
Peter Larry Schwartz, B.S.
James Hammond, B.A.
Michael Specter
Gary D. Shackelford, A.B.
Dr. Robert Carter Medical School Prizes
Phillip Ernest Hofsten, B.S.Ch.E.
John Harley, B.A.
Robert J. Clark, B.S.
James Goforth

C. V. Mosby Company Book Awards
William Ernest Bridson, A.B.
John Henry Brunner, A.B.

Lange Medical Publications Books Awards
Dennis P. Cantwell, B.S.
Philip George, B.A.
Larry Holle, B.A.
Carl G. Kardinal
Donald Kirks, B.A.

Robert Paul, A.B.
Paul Simons, B.A.
Emily Smith
John Ulvila, B.A.

SCHOLARSHIPS 1965-66

Jackson Johnson Regional Scholarships
Kirby Lawrence Allen, B.A.
Kenneth Jerome Arnold, A.B.
William Berman, Jr., A.B.
Hudson Bradley Binnington, Jr., A.B.
Robert J. Clark, B.S.
Jere Davies Cravens, B.A.
Lawrence J. Dunn, A.B.
William A. Grunow, B.A.
Maria G. Ikossi
Harvey Michael Jones
David Gordon Kaufman
Ira Kohn, A.B.

Anne Pelizzoni Lanier, B.A.
Robert B. McLean, B.A.
Wallace B. Mendelson, B.A.
John Patrick Murray, A.B.
Seymour Packman, A.B.
Morris Wade Pulliam
Charles Lynn Robertson
Jeffrey Ross, A.B.
Robert Dennis Shay
Emily Louise Smith
David Lee Stabenow, B.S.
Richard G. Wyatt, B.A.
Left: The David P. Wohl, Jr., Memorial—Washington University Clinics building, five floors of which are used for Clinics and five floors for research.

Right: The David P. Wohl, Jr., Memorial Hospital, which houses the administrative offices and laboratories for the Departments of Internal Medicine and Surgery, and provides three floors for the care of patients.
Abelson, Herbert
Traub, A.B., Univ. of Illinois, '62—Univ. of Colorado Medical Center Hospital, Denver, Colorado

Allen, Amelia
Massman, A.B., Washington Univ., '62—Virginia Mason Hospital, Seattle, Washington

Allen, Kirby Lawrence, B.A., Williams Coll., '62—Virginia Mason Hospital, Seattle, Washington

Allen, Robert Holt, A.B., Amherst Coll., '60—Parkland Memorial Hospital, Dallas, Texas

Baker, Max Alden, B.S., St. Louis Coll. of Pharmacy, '61—Genesee Hospital, Rochester, New York

Bisno, David Charles, A.B., Harvard Univ., '62—Mt. Zion Hospital, San Francisco, California

Boatright, James Richard, B.A., Univ. of Texas, '61—Cincinnati General Hospital, Cincinnati, Ohio

Boyd, Aubrey Everett III, B.A., Vanderbilt Univ., '62—Boston City Hospital, Boston, Massachusetts

Bray, David Alan, B.A., Lawrence Coll., '62—Los Angeles County Hospital, Los Angeles, California

Brooks, Michael Joseph, A.B., Columbia Univ., '61—Meadowbrook Hospital, East Meadow, New York

Brown, Terrance Allen—Radiation Physics, Washington University School of Medicine

Carspecken, Harold Hutson, Jr., A.B., Princeton Univ., '62—Barnes Hospital, St. Louis, Missouri

Cibis, Andrea Brigitte, A.B., Washington Univ., '62—Texas Children's Hospital, Houston, Texas

Cooley, David Allen, A.B., Univ. of Kansas, '62—Kansas City General Hospital, Kansas City, Missouri

Corrie, William Stephen, B.A., Reed Coll., '62—University of Indiana Hospital, Indianapolis, Indiana

Crowell, Edwin Ambrose III, B.A., State Univ. of Iowa, '63—Milwaukee County Hospital, Milwaukee, Wisconsin

Dehner, Louis Powell, A.B., Washington Univ., '62—Barnes Hospital, St. Louis, Missouri

Desmarais, Susan Lynn, B.A., Univ. of Texas, '62—Children's Hospital, St. Louis, Missouri

Dodge, David Lowell, B.S., Univ. of Wisconsin, '62—Univ. of Chicago Clinics, Chicago, Illinois

Eisen, Seth Adam, B.A., Reed Coll., '64—Bellevue Hospital, New York, New York

Emerson, James David, B.A., West Virginia Univ., '62—Barnes Hospital, St. Louis, Missouri

Fischer, Markham Jerome, A.B., Univ. of Minnesota, '61; B.S., State Univ. of South Dakota—Ancker Hospital, St. Paul, Minnesota

Frist, John Chester, Jr., Univ. of Florida Hospital, Gainesville, Florida

Garrison, Charles Owen, B.S., Idaho State Coll., '62—Univ. of Kansas Medical Center Hospital, Kansas City, Kansas

Gates, George Gregory, B.A., Dartmouth Coll., '63; B.S.M., '64—South Bend Medical Foundation Hospital, South Bend, Indiana

Geller, Robert Heller, B.A., Reed Coll., '65—Bellevue Hospital, New York, New York

George, Philip Gerald, B.A., Univ. of the South, '62—Barnes Hospital, St. Louis, Missouri

Gilbert, Jeffrey Morton, B.A., Reed Coll., '62—Montefiore Hospital, New York, New York

Gordon, Gilbert Julius, A.B., Princeton Univ., '62—Jewish Hospital, St. Louis, Missouri

Grady, Ronald Kenney, B.S., Purdue Univ., '56; M.S., '57—St. Luke's Hospital, St. Louis, Missouri

Hammond, James Mahoney, B.A., Rice Univ., '62—Boston City Hospital, Boston, Massachusetts

Harley, John Duncan, B.A., Coll. of Wooster, '62—Strong Memorial Hospital, Rochester, New York


Heisinger, Dale Helton, B.A., San Jose State Coll.'62—Charity Hospital, New Orleans, Louisiana

Holman, Bruce Leonard, B.A., Univ. of Wisconsin, '63—Mt. Zion Hospital, San Francisco, California

Holzer, Michael Edward—San Diego County General Hospital, San Diego, California

Jones, Harvey Michael—U.S. Naval Hospital, Philadelphia, Pennsylvania

Kaplan, Jerome Howard, B.S., Univ. of Dayton, '62—Jewish Hospital, St. Louis, Missouri
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree(s)</th>
<th>Institution</th>
<th>Location</th>
</tr>
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<tbody>
<tr>
<td>Kistler, Walter David Jr.</td>
<td>B.S., Univ. of North Dakota, '62; B.S.Med., '64</td>
<td>University Hospitals, Columbus, Ohio</td>
<td></td>
</tr>
<tr>
<td>Lanier, Anne Pelizzi, B.A.</td>
<td>Lawrence Coll., '62</td>
<td>Presbyterian Hospital, Denver, Colorado</td>
<td></td>
</tr>
<tr>
<td>Lanier, James Frederick, B.S.</td>
<td>North Dakota State Univ., '62; B.S.Med., Univ. of North Dakota</td>
<td>Presbyterian Hospital, Denver, Colorado</td>
<td></td>
</tr>
<tr>
<td>Leary, Daniel Joseph, Jr.</td>
<td>B.S., St. Louis University, '62</td>
<td>Wayne County General Hospital, Eloise, Michigan</td>
<td></td>
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<tr>
<td>Maley, Edward David</td>
<td></td>
<td>Barnes Hospital, St. Louis, Missouri</td>
<td></td>
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<td>Marcus, Neal Wilson, B.A.</td>
<td>Rice Univ., '62</td>
<td>Jewish Hospital, St. Louis, Missouri</td>
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<tr>
<td>Matlaf, Harvey Jay, A.B.</td>
<td>Washington Univ., '63</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
<td></td>
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<tr>
<td>Mayes, Ben Richardson, Jr., B.A.</td>
<td>Vanderbilt Univ., '62</td>
<td>Parkland Memorial Hospital, Dallas, Texas</td>
<td></td>
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<tr>
<td>Meyers, Jerry Richard, B.A.</td>
<td>Univ. of Texas, '62</td>
<td>Jewish Hospital, St. Louis, Missouri</td>
<td></td>
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<tr>
<td>Lee, Fransiska Ann, A.B.</td>
<td>Washington Univ., '62</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
<td></td>
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<tr>
<td>Lewis, Stephen Barnett, A.B.</td>
<td>Univ. of California, '62</td>
<td>Michael Reese Hospital, Chicago, Illinois</td>
<td></td>
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<tr>
<td>Liss, Jay Lawrence, A.B.</td>
<td>Washington Univ., '63</td>
<td>Jewish Hospital, St. Louis, Missouri</td>
<td></td>
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<tr>
<td>Lockhart, Charles Hurd</td>
<td></td>
<td>St. Luke's Hospital, St. Louis, Missouri</td>
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<td>Lowry, George McClellan, A.B.</td>
<td>Pomona Coll., '62</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
<td></td>
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<tr>
<td>Murray, John Patrick, A.B.</td>
<td>Vanderbilt Univ., '62</td>
<td>Medical College of Virginia Hospital, Richmond, Virginia</td>
<td></td>
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<tr>
<td>Palmer, Elliott Prather, Jr., A.B.</td>
<td>Dartmouth Coll., '62</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
<td></td>
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<tr>
<td>Phillips, Alfred Jon, B.A.</td>
<td>Rice Univ., '62</td>
<td>Ben Taub Children's Hospital, Houston, Texas</td>
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<td>Polage, David Louis, B.S.</td>
<td>Univ. of Idaho, '64</td>
<td>State University Hospitals, Iowa City, Iowa</td>
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<td>Porteous, John Ritchie, Jr.</td>
<td></td>
<td>Strong Memorial Hospital, Rochester, New York</td>
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<td>Prendergast, Thomas John, Jr., A.B.</td>
<td>Washington Univ., '62</td>
<td>St. Luke's Hospital, St. Louis, Missouri</td>
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<td>Pulliam, Morris Wade</td>
<td></td>
<td>Barnes Hospital, St. Louis, Missouri</td>
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<tr>
<td>Ramsey, Constance Kate, A.B.</td>
<td>Oberlin Coll., '57</td>
<td>St. Louis City Hospital, St. Louis, Missouri</td>
<td></td>
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<tr>
<td>Recant, Wendy Marsha, A.B.</td>
<td>Univ. of California, '60</td>
<td>St. Louis City Hospital, St. Louis, Missouri</td>
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<td>Rice, Carl Frederick, A.B.</td>
<td>Washington Univ., '62</td>
<td>Parkland Memorial Hospital, Dallas, Texas</td>
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<td>Robertson, Charles Lynn, B.S.</td>
<td>Univ. of Idaho, '64</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
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<td>Rogge, Leland Edgar, B.A.</td>
<td>Univ. of Washington, '62; B.M.S., Dartmouth Medical School, '64</td>
<td>St. Louis City Hospital, St. Louis, Missouri</td>
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<td>Rosenbaum, Arthur Louis, A.B.</td>
<td>Univ. of Michigan, '62</td>
<td>Mt. Zion Hospital, San Francisco, California</td>
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<td>Rumelt, Michael Barry, B.S.</td>
<td>Lamar State Coll., '62</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
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<td>Ruwitch, Joseph Froelich, Jr.</td>
<td></td>
<td>Jewish Hospital, St. Louis, Missouri</td>
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<td>Schaberg, Kevin Bradley, A.B.</td>
<td>Princeton Univ., '62</td>
<td>Johns Hopkins Hospital, Baltimore, Maryland</td>
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<td>Schafer, Larry August, B.S.</td>
<td>Univ. of Illinois, '62</td>
<td>Univ. of Colorado Medical Center Hospital, Denver, Colorado</td>
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<tr>
<td>Schiller, Harvey Stuart, B.S.</td>
<td>Univ. of Wisconsin, '63</td>
<td>Yale New Haven Medical Center Hospital, New Haven, Connecticut</td>
<td></td>
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<td>Schultz, Clifford Steven</td>
<td></td>
<td>Univ. of California Hospital, Los Angeles, California</td>
<td></td>
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<td>Sewell, Dan Andrey, B.S.</td>
<td>Colorado State Univ., '63</td>
<td>Univ. of Minnesota Hospital, Minneapolis, Minnesota</td>
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<td>Silverman, Lynn E., A.B.</td>
<td>Washington Univ., '62</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
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<td>Stevenson, Walter Davis, III, B.A.</td>
<td>Williams Coll., '62</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
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<td>Torgerson, Leslie Al, A.B.</td>
<td>Concordia Coll., '62</td>
<td>Letterman General Hospital, San Francisco, California</td>
<td></td>
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<tr>
<td>Trelins, George David, B.A.</td>
<td>St. Olaf Coll., '62; B.M.S., State Univ. of South Dakota, '64</td>
<td>Mt. Zion Hospital, San Francisco, California</td>
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</tbody>
</table>
REGISTER OF STUDENTS

Trueworthy, Robert Charles, A.B., Washington Univ., '62—University of Kansas Medical Center Hospital, Kansas City, Kansas
Vezon, Dennis Eugene, B.S., Univ. of Illinois, '62—Presbyterian Hospital, Denver, Colorado
Walz, Bruce James, A.B., Washington Univ., '62—St. Luke's Hospital, St. Louis, Missouri
Weis, Landy Suzanne, A.B., Washington Univ., '63—Barnes Hospital, St. Louis, Missouri
Wolkstein, Murray Allan, A.B., Columbia Univ., '62—Maimonides Hospital, Brooklyn, New York
Wood, William Gerald, B.S., Oklahoma State Univ., '62—Barnes Hospital, St. Louis, Missouri

THIRD-YEAR CLASS (1965-66)

Adams, Michael, A.B., Fresno State Coll., '61—Yosemite National Park, California
Allen, George Sewall, B.A., Wesleyan Univ., '63—St. Louis, Missouri
Alvord, Douglas Wayne, B.A., Rice Univ., '63—Dallas, Texas
Andersen, Robert Stanley—Menlo Park, California
Anslinger, David Lawrence, B.S., St. Louis Univ., '63—Mt. Vernon, Illinois
Asher, John Errol, A.B., Western Reserve Univ., '63—University Heights, Ohio
Blodgett, David Paul, A.B., Grinnell Coll., '63—Nevada, Iowa
Bilchik, Ronald Charles, B.S., Univ. of Toledo, '63—Cleveland Heights, Ohio
Blair, Grace Lucille, B.A., Univ. of Minnesota, '63—Ekalaka, Montana
Boettge, Milton Sanford, A.B., Washington Univ., '64—St. Louis, Missouri
Blinn, Johny, B.A., Univ. of Texas, '63—Victoria, Texas
Boettge, John Charles—Canton, Illinois
Bornslein, Philipp Emanuel, B.S., Texas Western Coll., '62—El Paso, Texas
Bramson, Robert Thomas, B.A., Grinnell Coll., '63—Prairie Village, Kansas
Brock, David Carl, A.B., Washington Univ., '63—Greenville, Illinois
Brodsky, Alan Lawrence, B.S., Southern Methodist Univ., '63—Dallas, Texas
Broido, Peter W., A.B., Columbia Coll., '63—New York, New York
Buetner, John Brigham, B.A., Dartmouth Coll., '63—St. Louis, Missouri
Campbell, Allan Clair, B.S., Univ. of Illinois, '65—Champaign, Illinois
Clark, Robert John, B.S., Univ. of Illinois, '62—Chicago, Illinois
Counts, William Allen, B.A., Washington Univ., '63—Tulsa, Oklahoma
Counts, Sandra Karm, B.S., Univ. of Texas, '63—San Antonio, Texas
Crouch, John Raymond—Norris City, Illinois
Douglas, John Simonton, Jr., B.A., Univ. of the South, '63—North Augusta, South Carolina
Dukeman, Edward Allan, B.A., Florida State Univ., '62—Tallahassee, Florida
Feagler, John Raker, A.B., Indiana Univ., '63; M.S., '65—Cleveland, Ohio
Frecking, Marianne Georgette, B.S., Univ. of Utah, '63—Salt Lake City, Utah
Frederiksen, Rand Verrell—Lubbock, Texas
Friedrich, Eric William—St. Louis, Missouri
Goldstein, Allan Joel, A.B., Univ. of Pennsylvania, '62—Jamaica, New York
Hazlett, Donald Arthur, A.B., Greenville Coll., '62—Niagara Falls, New York
Hed, John, B.A., DePauw Univ., '63—Gary, Indiana
Hogan, Sharon Mary, A.B., Washington Univ., '63—Lombard, Illinois
Holle, Larry Arthur, B.A., Valparaiso Univ., '63—Princeton, Indiana
Horner, William Benjamin, Jr., A.B., Knox Coll., '63—Laurel, Delaware
Jacobs, Michael Bernard, A.B., Washington Univ., '65—St. Louis, Missouri
<table>
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<td>Katz, Arnold Elliott</td>
<td>A.B.</td>
<td>Dartmouth Coll.</td>
<td>'63</td>
<td>Marblehead, MA</td>
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<td>Kemp, David Garrett</td>
<td>B.S.</td>
<td>Univ. of Toledo</td>
<td>'62</td>
<td>Perrysburg, OH</td>
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<td>Kodner, Ira Joe</td>
<td>A.B.</td>
<td>Washington Univ.</td>
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<td>St. Louis, MO</td>
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<td>Kwan, Benjamin Ching Kee</td>
<td>B.S.</td>
<td>St. Louis Univ.</td>
<td>'62</td>
<td>Hong Kong</td>
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<td>Kyger, David Louis</td>
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<td>Langer, Paul Henry</td>
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<td>Lawrence Coll.</td>
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<td>Valparaiso, IN</td>
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<td>Letcher, Frank Scott</td>
<td>B.A.</td>
<td>Yale Univ.</td>
<td>'63</td>
<td>Miami, OK</td>
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<td>Lobesnitz, Irving Louis</td>
<td>B.A.</td>
<td>Univ. of California</td>
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<td>Massie, Henry Norton</td>
<td>A.B.</td>
<td>Harvard Coll.</td>
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<td>McDonald, George Bernard</td>
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<td>Univ. of California</td>
<td>'63</td>
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<td>McLean, Robert Beatty</td>
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<td>Vanderbilt Univ.</td>
<td>'63</td>
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<td>Morris, Len Wayne</td>
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<td>Packman, Seymour</td>
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<td>Columbia Coll.</td>
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<td>Porter, Robert Dean</td>
<td>B.A.</td>
<td>Ottawa Univ.</td>
<td>'63</td>
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<td>Rachelefsky, Gary Stuart</td>
<td>A.B.</td>
<td>Columbia Univ.</td>
<td>'63</td>
<td>Brooklyn, NY</td>
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<td>Ramalho, Lawrence Da Silva</td>
<td>A.B.</td>
<td>Fresno State Coll.</td>
<td>'63</td>
<td>Fresno, CA</td>
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<td>Ratkin, Gary Alan</td>
<td>B.A.</td>
<td>Rice Univ.</td>
<td>'63</td>
<td>McAllen, TX</td>
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<td>Reddick, Max Edward</td>
<td>B.S.</td>
<td>Drury Coll.</td>
<td>'63</td>
<td>Springfield, MO</td>
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<td>Reich, Alan Joel</td>
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<td>Riggs, Thomas Earl</td>
<td>B.S.</td>
<td>Univ. of Oklahoma</td>
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<td>Tulsa, OK</td>
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<td>Rosenthal, Randall</td>
<td>B.S.</td>
<td>Purdue Univ.</td>
<td>'64</td>
<td>St. Louis, MO</td>
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<td>Rothman, Jay Allen</td>
<td>A.B.</td>
<td>Washington Univ.</td>
<td>'63</td>
<td>Brooklyn, NY</td>
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<tr>
<td>Seddon, James Alexander</td>
<td>Jr.</td>
<td>Harvard Coll.</td>
<td>'54</td>
<td>St. Louis, MO</td>
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<td>Shaw, Richard Clarke</td>
<td>A.B.</td>
<td>State Univ. of Iowa</td>
<td>'63</td>
<td>Des Moines, IA</td>
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<td>Shay, Robert Dennis</td>
<td>-</td>
<td>Lafayette</td>
<td>'63</td>
<td>CA</td>
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<td>Simon, Paul Stephen</td>
<td>B.A.</td>
<td>Univ. of Texas</td>
<td>'63</td>
<td>Austin, TX</td>
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<td>Slavin, Richard Jay</td>
<td></td>
<td>San Francisco, CA</td>
<td>'63</td>
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<td>Specter, Michael Joseph</td>
<td>-</td>
<td>East Chicago, IL</td>
<td>'63</td>
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<td>Stevenson, Edward Kent</td>
<td>B.A.</td>
<td>Ottawa Univ.</td>
<td>'63</td>
<td>North Platte, NE</td>
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<td>Strauss, Melvin</td>
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<td>Univ. of Rochester</td>
<td>'63</td>
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<td>Stromberg, Eric Decatur</td>
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<td>Kenyon Coll.</td>
<td>'63</td>
<td>Worthington, OH</td>
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<td>Utley, Joel Faye</td>
<td>B.A.</td>
<td>Oklahoma City Univ.</td>
<td>'56</td>
<td>Clinton, OK</td>
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<td>Van Meter, Stephen Woehler</td>
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<td>Stanford Univ.</td>
<td>'63</td>
<td>Indianapolis, IN</td>
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<td>Vinicor, Frank</td>
<td>B.A.</td>
<td>Yale Univ.</td>
<td>'63</td>
<td>Norwood, NY</td>
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<td>Walcher, Andreas Max</td>
<td>A.B.</td>
<td>Earlham Coll.</td>
<td>'63</td>
<td>Dayton, OH</td>
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<tr>
<td>Wermuth, Albert Frederick</td>
<td>Jr.</td>
<td>Washington State Univ.</td>
<td>'63</td>
<td>West Caldwell, NJ</td>
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<tr>
<td>Ziporin, Philip</td>
<td>A.B.</td>
<td>Cornell Univ.</td>
<td>'63</td>
<td>Aurora, CO</td>
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**SECOND-YEAR CLASS (1965-66)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Institution</th>
<th>Year</th>
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<td>Altman, Jeremy</td>
<td>-</td>
<td>Philadelphia, PA</td>
<td>'66</td>
<td>PA</td>
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<tr>
<td>Arnold, Kenneth Jerome</td>
<td>A.B.</td>
<td>Univ. of Notre Dame</td>
<td>'64</td>
<td>Belleville, IL</td>
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<td>Asnis, Stanley Edlin</td>
<td>-</td>
<td>West Orange, NJ</td>
<td>'64</td>
<td>NJ</td>
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<tr>
<td>Baker, Gary Edwin</td>
<td>B.S.</td>
<td>Univ. of Wyoming</td>
<td>'64</td>
<td>Wheatland, WY</td>
</tr>
<tr>
<td>Barack, Bruce Millard</td>
<td>A.B.</td>
<td>Washington Univ.</td>
<td>'63</td>
<td>St. Louis, MO</td>
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<tr>
<td>Barber, Letha Ross</td>
<td>B.S.</td>
<td>Purdue Univ.</td>
<td>'61</td>
<td>Youngstown, OH</td>
</tr>
<tr>
<td>Betz, William John</td>
<td></td>
<td>La Grange, IL</td>
<td>'63</td>
<td>IL</td>
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</tbody>
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Binnington, Hudson Bradley, Jr., A.B., Washington Univ., '64—St. Louis, Missouri
Boedecker, Edgar Charles, A.B., Harvard Univ., '64—St. Louis, Missouri
Border, Wayne Allen—Bremen, Indiana
Brasfield, Daniel Lynton, A.B., Vanderbilt Univ., '64—Tupelo, Mississippi
Brock, Jack Arthur, B.S., Miami Univ., '63—Hamilton, Ohio
Burk, Kenneth Melvin, A.B., Princeton Univ., '64—Columbus, Ohio
Buscho, Robert F., A.B., Washington Univ., '64—St. Louis, Missouri
Carlton, Lynn Norman, A.B., Wittenberg Univ., '64—Oscoda, Michigan
Coleman, Ralph Edward—Evansville, Indiana
Cravens, Jere Davies, B.S., Washington and Lee Univ., '64—Tulsa, Oklahoma
Croley, Thomas Frank—Indianapolis, Indiana
Davidson, Harold James, Jr., A.B., Washington Univ., '64—Philadelphia, Pennsylvania
Decem, Clark Wheeler, A.B., Amherst Coll., '64—St. Louis, Missouri
Dennison, Carl Francis, B.A., Univ. of Notre Dame, '64—Dallas, Texas
Dennison, Joseph Randall, B.S., Univ. of Nebraska, '64—Lincoln, Nebraska
Dodge, Michael Eldon, B.S., Montana State Coll., '64—Bozeman, Montana
Ellis, William B.S., Univ. of California, '64—San Francisco, California
Elson, Charles Otto, A.B., Univ. of Notre Dame, '64—Chicago, Illinois
Feldman, Neil Turk, B.S., Univ. of Maryland, '64—Chevy Chase, Maryland
Flatness, Sonja Gail, B.S., Montana State Coll., '64—Marmarth, North Dakota
Giron, Louis Tellez, Jr., B.A., Rice Univ., '64—San Antonio, Texas
Goforth, James Morris—Comfort, Texas
Golden, David, A.B., Grinnell Coll., '64—Arlington, Virginia
Gregg, Susan Annette, B.S., Univ. of Idaho, '64—Pullman, Washington
Haller, Penelope Greta, B.S., Univ. of Wisconsin, '64—Fort Atkinson, Wisconsin
Halperin, Thomas Edgar, A.B., Univ. of Michigan, '64—Peoria, Illinois
Hanovitch, Gary David, B.A., Rice Univ., '64—Houston, Texas
Heath, Hunter, III, A.B., Texas Technological Coll., '64—Lubbock, Texas
Hendin, Barry Allen, A.B., Washington Univ., '64—St. Louis, Missouri
Herzberg, Donald Loren—Houston, Texas
Holder, Lawrence Edward, B.A., Vanderbilt Univ., '64—Birmingham, Alabama
Karlin, Joel Marvin, B.A., Washington Square Coll. of New York Univ., '64—New York
Kash, Stephen Lee—Mt. Sterling, Kentucky
Kaufman, David Gordon—Jersey City, New Jersey
Kirk, Donald Ray, B.A., Rice Univ., '64—Fort Worth, Texas
Kotner, Lawrence Melvin—St. Louis, Missouri
Kramer, Sandra Kynett, B.A., Rice Univ., '63—Dallas, Texas
Lander, Jerrold J., A.B., Washington Univ., '64—St. Louis, Missouri
Larner, Bernard Jerome, B.A., Reed Coll., '64—St. Louis, Missouri
Lipton, George Myron—Danville, Illinois
Loverde, Vernon Douglas, B.S., Purdue Univ., '64—Chicago, Illinois
McAllrey, James Parker—Fort Worth, Texas
Michlin, John Paul—Los Angeles, California
Nicol, Sheldon Spencer, A.B., Illinois Wesleyan Univ., '64—Maroa, Illinois
Nusrala, James Michael, B.S., Univ. of Notre Dame, '64—St. Louis, Missouri
Orchard, Richard Allen, A.B., Grinnell Coll., '64—Cherokee, Iowa
Paul, Robert George, A.B., Washington Univ., '64—St. Louis, Missouri
Pearson, William Edward—Fort Smith, Arkansas
Perez, Rodolfo Nestor, Jr.—Roma, Texas
Prewitt, Maribeth, B.A., Univ. of Arkansas, '64—Tillar, Arkansas
Raffin, Steven Bennett, A.B., Stanford Univ., '64—San Francisco, California
Reif, Michael Edward—Oklahoma City, Oklahoma
Robbins, Philip Leonard, Jr., B.A., Univ. of Texas, '64—New Iberia, Louisiana
Rodin, Leonard M., B.S., Univ. of Wisconsin, '64—SAC City, Iowa
Rothschild, James Goodfriend, B.A., Wesleyan Univ., '64—St. Louis, Missouri
Sayre, Blaine Michael—St. Paul, Minnesota
Schade, David Sinclair—Washington, D.C.
Schilbach, Christhart—Sedalia, Missouri
Schneider, Arthur, A.B., Washington Univ., '64—St. Louis, Missouri
Schuckit, Marc Alan—Milwaukee, Wisconsin
Schwarz, Paul Russell, A.B., Grinnell Coll., '64—St. Louis, Missouri
Shackelford, Gary Dean, A.B., Northwestern Univ., '64—Alton, Illinois
Shillinglaw, John Andrew, B.A., Cornell Coll., '64—Englewood, Colorado
Sims, Kenneth Lee—Lubbock, Texas
Smith, Emily Louise—Bellefontaine, Illinois
Stabenow, David Lee, B.S., Univ. of Georgia, '64—Atlanta, Georgia
Stayton, Conrad Lawrence, Jr., B.S., Southeastern Louisiana Coll., '64—Hammond, Louisiana
Stover, Andrea B., Univ. of Colorado, '64—Denver, Colorado
Strief, Larry Gene—Livermore, California
Taussig, Lynn Max, A.B., Harvard Univ., '64—Milwaukee, Wisconsin
Thach, Bradley Terrill, A.B., Princeton Univ., '64—Oklahoma City, Oklahoma
Wells, Ralph Alan, B.A., Univ. of Denver, '64—Pittsburg, Kansas
Williams, David Lawrence, B.A., Lawrence Coll., '64—San Marino, California
Winkelmann, Jan Zlatkin, A.B., Univ. of Michigan, '64—Detroit, Michigan
Wiserhof, Max Vernon, II, B.A., Cornell Coll., '64—Victoria, Illinois
Zweig, Mark Howard, A.B., Washington Univ., '64—Silver Spring, Maryland

FIRST-YEAR CLASS (1965-66)
Adams, William Larry—Caldwell, Idaho
Anhalt, John Paul, B.A., Johns Hopkins Univ., '65—Monterey Park, California
Armstrong, John William, Jr., B.S., Univ. of Idaho, '65—Lewiston, Idaho
Atwood, James DeHaven—San Francisco, California
Baker, John William, Jr.—Kirkwood, Missouri
Barr, John Whitney, A.B., Johns Hopkins Univ., '65—Kirkwood, Missouri
Bates, Thomas Roger—Rigby, Idaho
Becker, Robert Louis, A.B., Cornell Univ., '65—St. Louis, Missouri
Berman, William Jr., A.B., Harvard Univ., '65—St. Louis, Missouri
Blatt, Philip Mark, A.B., Univ. of Pennsylvania, '65—South Noyack, New York
Busby, Alan Werner, B.S., Univ. of Idaho, '64—Boise, Idaho
Calodney, Leonard, B.S., Grinnell Coll., '65—St. Louis, Missouri
Cowan, Michael Lynn—Fort Morgan, Colorado
Devine, Darrel Wayne—Logan, Utah
Dowell, George Howard, Jr., B.A., Amherst Coll., '60—Baltimore, Maryland
Dunn, Lawrence John, A.B., Stanford Univ., '65—Santa Maria, California
Epstein, James Michael, B.S., Univ. of Notre Dame, '65—Glen Ellyn, Illinois
Farley, James Alan—Fullerton, California
Fathman, Charles Garrison, A.B., Univ. of Kentucky, '64—St. Louis, Missouri
Fletcher, Mary Ann, B.S., Univ. of Puget Sound, '65—Olympia, Washington

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Freidin, Ralph Baumann, A.B., Columbia Univ., '65—New York, New York
Glenn, William Vincent, Jr., B.A., Johns Hopkins Univ., '65—Falls City, Nebraska
Goldman, Thomas Newton, A.B., Princeton Univ., '65—St. Louis, Missouri
Goldring, Steven Reyburn, B.A., Williams Coll., '65—St. Louis, Missouri
Goedt, William Patrick, B.A., Hastings Coll., '65—Hastings, Nebraska
Goodman, Charles Edward, Jr., B.A., Univ. of the South, '65—Decatur, Tennessee
Greener, Donald Joseph, B.S., Allegheny Coll., '65—Harbor Creek, Pennsylvania
Grobler, Robert Edward, B.S., Univ. of Illinois, '65—Barrington, Illinois
Grumew, William Agur, B.A., Valparaiso Univ., '65—Fort Worth, Texas
Hall, Thomas Bryan III, B.A., Univ. of the South, '65—Kansas City, Missouri
Haymond, Morey William, A.B., Grinnell Coll., '65—Greeley, Colorado
Hearst, Earl David—St. Louis, Missouri
Hendrix, Ronald Wayne, A.B., Washington Univ., '65—St. Louis, Missouri
Hessey, Harry Thornton, A.B., Columbia Univ., '65—Chatham, New Jersey
Ikossi, Maria Georgiou—Nicosia, Cyprus
Jacobs, Richard Peter, A.B., Univ. of California, '65—Bellflower, California
Johnson, Val Budge—Ogden, Utah
Karchmer, Richard Kent, A.B., Princeton Univ., '65—Memphis, Tennessee
Kelley, Michael John, B.A., Fresno State Coll., '65—Fresno, California
King, David Michael, B.S., Univ. of Tulsa, '65—Tulsa, Oklahoma
Kolodny, Robert Charles, A.B., Columbia Univ., '65—Scarsdale, New York
Knuteson, Edward LeeRoy, B.S., Purdue Univ., '65—Blackstone, Illinois
Kraetsch, Robert Elroy, B.S., Univ. of Illinois, '65—Peoria, Illinois
 Krajovic, David Paul, A.B., Washington Univ., '65—St. Louis, Missouri
Krauss, David Roy—St. Louis, Missouri
Levy, Michael Theodore, B.A., Queens Coll., '65—Flushing, New York
Lindsey, James Otis, II, A.B., Harvard Univ., '65—Waxahachie, Texas
Lipson, Michael Edwin—Toledo, Ohio
Long, John Charles, A.B., Northwestern Univ., '65—Plainview, Texas
Mendelson, Wallace Brand, B.A., Univ. of Texas, '65—Austin Texas
Minehan, Ann Sarah, A.B., Rosemont Coll., '64—Pelham, New York
Moir, George Douglas, A.B., Stanford Univ., '65—San Marino, California
Neubauer, William Nathan, B.S., Univ. of Arizona, '65—Tucson, Arizona
Nevins, Thomas Ernest, A.B., Rockhurst Coll., '65—Rockford, Illinois
Newman, Robert Crouch—Ogden, Utah
Oxenhandler, Donald Craig—St. Louis, Missouri
Ramsey, Roy, Jr., A.B., Univ. of California at Los Angeles, '65—La Crescenta, California
Randall, George Ralph, A.B., Oklahoma City Univ., '65—Elk City, Oklahoma
Rich, Charles Lambert, B.A., DePauw Univ., '65—Covington, Kentucky
Roberts, James Shelton, B.S., Washington State Univ., '65—Richland, Washington
Ross, Jeffrey, A.B., Princeton Univ., '65—St. Louis, Missouri
Russ, Mitchell Allen, B.Sc., Ohio State Univ., '65—Cleveland, Ohio
Samson, Duke Staples, A.B., Standford Univ., '65—Odessa, Texas
Scheeder, Ronald Lee—Carrollton, Illinois
Schupbach, Curtis Wayne, A.B., Univ. of Missouri, '65—Sedalia, Missouri
Sheridan, John Joseph, B.A., Univ. of Notre Dame, '65—St. Louis, Missouri
Siegel, Barry Alan—Chicago, Illinois
REGISTER OF STUDENTS

Smith, Sydney Allen III, B.A., Univ. of Mississippi, ’63—Jackson, Mississippi
Smith, William Clifton, B.A., Vanderbilt Univ., ’65—Pembroke, Kentucky
Sullivan, James Andy—St. Charles, Missouri
Swan, Davis McKean, B.S., Univ. of Wyoming, ’63—Riverton, Wyoming
Trotter, John Lee, B.A., DePauw Univ., ’65—St. Louis, Missouri
Turner, William George, Jr., B.A., DePauw Univ., ’65—Worthington, Ohio
Wanke, Gary Keith, A.B., Knox Coll., ’65—Skokie, Illinois
Williams, Paul Roy, B.S., Evangel Coll., ’65—Springfield, Missouri
Witroub, Bruce Urich, A.B., Amherst Coll., ’63—Omaha, Nebraska
Witztum, Joseph Lee, B.A., Vanderbilt Univ., ’65—Madison, Tennessee
Wyatt, Richard Gregory, B.A., Central Methodist Coll., ’64—Lebanon, Missouri
Younger, W. B. Jerry—Abilene, Texas
Zopf, David Arnold, A.B., Washington Univ., ’64—St. Louis, Missouri
Zurbrugg, Eric Brinton, B.S., U.S. Air Force Academy, ’65—Zanesville, Ohio

SUMMARY OF STUDENTS IN THE SCHOOL OF MEDICINE

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Ali Aboosi, Assistant in Pediatrics
Harry B. Abramowitz, Assistant in Surgery
James E. Adams, Assistant and Trainee (NIMH) in Psychiatry
Jorge M. Alegre, Assistant in Medicine, Obstetrics and Gynecology, Pediatrics, and Surgery
Ronald Alexander, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Thomas H. Allen, Fellow in Plastic Surgery
Joel William Allgood, Trainee (NIAMD) in Medicine (Hematology)
Ruth Grene Alscher, Predoctoral Fellow and Trainee (NIGMS) in Pharmacology
M. T. Amjad, Assistant in Psychiatry
Charles B. Anderson, Assistant in Surgery
Khurshed A. Ansari, Fellow in Neurological Surgery
Margaret Ansari, Assistant in Pediatrics
Sharad V. Apte, Rockefeller Foundation Fellow in Medicine (Hematology)
Refugio C. Arevalo, Assistant in Pediatrics
Neva P. Arribas, Fellow in Ophthalmology
Jennifer Dorothy Ashby, Assistant in Medicine (Dermatology)
F. Eliska Atkins, Assistant in Pediatrics
Joseph Averuch, Assistant in Medicine
Victor Alphons Aydt, Assistant in Pathology
Thomas J. Banton, Jr., Fellow and Trainee (NIAMD) in Orthopedic Surgery
John C. Barber, Assistant in Pediatrics
Ramnik G. Barchha, Assistant in Psychiatry
John Lester Bardsley, Assistant in Radiology
Wagih M. Bari, Assistant in Pathology
Floyd R. Barnhill, Jr., Assistant and Fellow (NIHDB) in Otolaryngology
Norman Carl Barohn, Research Fellow in Psychiatry (Medical Psychology)
William Beaty, Assistant in Pediatrics
Paul Beck, Trainee (NIAMD) in Medicine (Metabolism)
Michael A. Becker, Assistant in Medicine
Francisco Belisario, Fellow in Ophthalmology
Clarence E. Bell, Assistant in Medicine
V. Gordon Benson, Assistant in Surgery
Edward F. Berg, Assistant in Ophthalmology
Paul Harvey Berman, Assistant in Medicine
Bruce H. Berryhill, Assistant in Otolaryngology
Eliot L. Borson, Assistant in Ophthalmology
John F. Bigger, Jr., Assistant and Fellow (NINDS) in Ophthalmology
Clifford Allen Birge, Trainee (NIAMD) in Medicine (Metabolism)
Joseph T. Black, Assistant in Medicine
Arnold Sheldon Bleiweis, Trainee (NIGMS) in Preventive Medicine (Epidemiology)
Irving Boime, Predoctoral Fellow and Trainee (NIGMS) in Pharmacology
Isaac Boniuk, Special Fellow (NINDS) in Ophthalmology
Vivien Boniuk, Assistant and Fellow (NINDS) in Ophthalmology
Benje Boonsfa, Assistant in Medicine
Robert S. Bourke, Assistant in Neurological Surgery
Thomas Brennan, Assistant in Pediatrics
George Henry Bresnick, Assistant and Fellow (NINDS) in Ophthalmology
Sandra H. Bridges, Trainee (NIAID) in Microbiology
William E. Bridson, Assistant in Medicine
Patricia J. Brilliant, Assistant in Psychiatry (Medical Psychology)
ASSISTANTS, FELLOWS, AND TRAINEES

Paceli E. Brion, Assistant in Psychiatry
Andrew Marion Brown, Assistant and Fellow (NINDB) in Otolaryngology
Barbara N. Brown, Assistant in Pediatrics
Michael W. Brown, Assistant in Radiology
Richmond J. Brownson, Assistant in Otolaryngology
Jack A. Brucher, Assistant in Radiology
John H. Brunner, Assistant in Surgery
Dan C. Bryant, Assistant in Medicine
Ronald Marshall Burde, Assistant and Fellow (NINDB) in Ophthalmology
William A. Burke, Fellow in Thoracic and Cardiovascular Surgery
Kay Standley Burnes, Assistant in Child Psychiatry (Medical Psychology)
Dale F. Burton, Assistant in Surgery
Somporn Bussaratid, Assistant in Psychiatry
A. Sevim Buyukdevrim, Trainee (NIAMD) in Preventive Medicine
Remi Jero Cadoret, Assistant and Trainee (NIMH) in Psychiatry
Vincent Castellucci Predoctoral Fellow in Neurology
Denis Catalano, Assistant in Pediatrics
James R. Cate, Assistant and Fellow (NINDB) in Otolaryngology
A. Duane Catterson, Assistant in Surgery
Nelson Calhallos, Assistant in Child Psychiatry
Stephen D. Cederbaum, Assistant in Medicine
Donald S. Chambers, Assistant and Trainee (NIMH) in Psychiatry
Preston J. Chandler, Jr., Assistant in Surgery
J. William Cheek, Trainee (NIH) in Medicine (Cardiology)
Tze Chun Chiang, Assistant in Radiology
Theresa Ning-Hsin Chin, Research Fellow in Biological Chemistry
John P. Christy, Assistant in Surgery
Ladavan Chuenchit, Research Fellow in Pediatrics and Fern Waldman Fellow in Pediatrics
Dong Kyu Chung, Missouri and St. Louis Heart Associations Fellow in Medicine (Cardiology)
Eugene Claeyts, Assistant in Pediatrics
Ivan S. Cliff, Jr., Assistant in Medicine (Dermatology)
Allen B. Cohen, Assistant in Medicine
Barry M. Cohen, Assistant in Medicine
Hillard K. Cohen, Trainee (NIAMD) in Medicine (Gastroenterology)
Robert S. Cohen, Assistant in Obstetrics and Gynecology
Sheftel J. Cohen, Assistant in Anesthesiology
Leon R. Coker, Assistant in Medicine
Robert W. Colman, Trainee (NIAMD) in Medicine (Hematology)
Roberta F. Colman, U.S. Public Health Service Postdoctoral Fellow in Biological Chemistry
John P. Connors, Assistant in Surgery
D. Owen Coons, Assistant in Surgery
Ian A. Cooper, Trainee (NIAMD) in Medicine (Hematology)
Orozimbo A. Costa, Research Fellow in Otolaryngology
Edward Cotlier, Assistant and Special Fellow (NINDB) in Ophthalmology
Aris W. Cox, Assistant in Surgery (On Leave of Absence)
Alan Gordon Craig, Assistant and Trainee (NIMH) in Child Psychiatry
Sheila Wood Craig, Assistant and Trainee (NIMH) in Child Psychiatry
Neil A. Crane, Assistant in Medicine
Abraham Milton Crotin, Clinical Fellow in Otolaryngology
Garrett J. Crotty, Assistant in Surgery (On Leave of Absence)
ASSISTANTS, FELLOWS, AND TRAINEES

Philip E. Cryer, Assistant in Medicine
Sompong Daengsurisri, Assistant in Psychiatry
Edward B. Dalton, Assistant in Orthopedic Surgery
Ralph D. Damore, Assistant in Surgery
Mohammed D'Arcy, Assistant in Pathology
J. Clayton Davie, Fellow in Neurological Surgery and in Anatomy
Joseph M. Davie, Trainee (NIGMS) in Preventive Medicine (Epidemiology)
Dale George Davis, Fellow in Ophthalmology
Elaine M. Neill Davis, Assistant in Obstetrics and Gynecology
Gustave L. Davis, American Cancer Society Clinical Fellow and Research Assistant in Pathology
(Surgical Pathology)
James W. Debnam, Jr., Assistant in Radiology
Alberto de Jesus, Assistant in Anesthesiology
Armando Gomes de Melo, Research Fellow in Biological Chemistry
Bruce C. Denny-Brown, Assistant in Medicine
Gilles M. Desmarais, Assistant and Trainee (NIMH) in Psychiatry
Kurt Deubelbeiss, Assistant in Medicine
William H. Diehl, Jr., Assistant and Fellow (NINDB) in Otolaryngology
Jerome Dickers, Assistant in Pediatrics
Bozidar Djordjevic, Research Fellow in Radiology
Thomas C. Doukhett, Research Fellow and Research Trainee (NIMH) in Psychiatry (Medical Psychology)
Phillenore A. Drummond, U.S. Public Health Service Predoctoral Fellow in Biological Chemistry
Leonard J. Dumonceaux, Assistant and Trainee (NIMH) in Psychiatry
Stewart B. Dunsker, Assistant in Neurological Surgery
William Dyer, Jr., Assistant in Pediatrics
R. Philip Eaton, Assistant in Medicine
Irvin A. Elbaugh, Jr., Assistant and Trainee (NIMH) in Psychiatry
Dave H. Eby, Assistant in Medicine
Rene A. Echevarria, Trainee (NIGMS) in Experimental Pathology (Surgical Pathology)
James Earl Edwards, Assistant and Trainee (NIMH) in Psychiatry
Carl F. Ehrlich, Jr., Assistant in Surgery
Saul Eisen, Assistant in Radiology
Ivan O. Elkan, Assistant in Medicine
Max L. Elliott, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
James C. Ellsasser, Assistant in Orthopedic Surgery
Neil Elvick, Assistant in Pediatrics
Ronald G. Evens, Assistant in Radiology
Samuel E. Ezenwa, Assistant in Surgery (Anesthesiology)
Elie Farah, Fellow in Ophthalmology
Howard Stephen Farmer, Assistant and Fellow (NINDB) in Otolaryngology
Frederick S. Fehr, Research Fellow and Research Trainee (NIMH) in Psychiatry (Medical Psychology)
Mary Jane Fehr, Assistant in Occupational Therapy
Richard S. Felkner, Assistant and Fellow (NINDB) in Otolaryngology
Francis M. Fennegan, Assistant in Neurological Surgery
James Paul Ferguson, Fellow (NINDB) in Neurology and Fellow in Neurosurgery
Charles M. Fermor, Assistant in Surgery
Raymond W. Ferrier, Fellow in Thoracic and Cardiovascular Surgery

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ASSISTANTS, FELLOWS, AND TRAINEES

Louis H. Fingerman, Assistant and Fellow (NINDB) in Ophthalmology
Gary Russell Fogg, Assistant in Ophthalmology
Jaroslava Folbergrova, Fellow (NINDB) in Pharmacology
Melvin I. Freeman, Assistant and Fellow (NINDB) in Ophthalmology
Harry C. Froede, Trainee (NIGMS) in Pharmacology
Farid M. Fuleihan, Assistant and Clinical Fellow in Genitourinary Surgery
Andrew E. Galakatos, Assistant in Medicine, Obstetrics and Gynecology, and Surgery
Elliott N. Gale, Research Fellow in Psychiatry (Medical Psychology)
Jose A. Garcia-Otero, Trainee (NCI) in Radiology (Radiation Therapy)
John T. Garland, Assistant in Medicine
Davis G. Garrett, Jr., Assistant and Trainee (NIMH) in Psychiatry
Michael Gass, Trainee (NIAMD) in Medicine (Dermatology)
Richard P. Gerhardstein, Assistant and Trainee (NIMH) in Psychiatry
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Walter Bruce Gibson, Predoctoral Trainee (NIGMS) in Biological Chemistry
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Henry P. Godfrey, Assistant in Medicine
Benjamin M. Goldstein, Assistant in Medicine
Robert R. Goodin, Assistant in Medicine
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Hall E. Harris, Assistant in Medicine
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ASSISTANTS, FELLOWS, AND TRAINEES

Alan S. Hendin, Assistant in Medicine
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Richard Kiraly, Assistant in Plastic Surgery
Mark C. Kiselow, Assistant in Surgery
John L. Kiser, Assistant in Surgery
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Benjamin J. Kleinstiver, Assistant in Orthopedic Surgery
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Stuart A. Kornfeld, Assistant in Medicine
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Mery Kostianovsky, Assistant in Pathology and Research Assistant in Experimental Pathology
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Ralph P. Kuhlman, Assistant in Medicine
Nobuko O. Kuhn, Assistant in Medicine
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Edward A. Luce, Assistant in Surgery
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Maria Lyskowska, Assistant in Pediatrics
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Prometeo Nebot Madarnas, Assistant in Pathology
ASSISTANTS, FELLOWS, AND TRAINEES

Oscar L. Majure, Jr., U.S. Navy Fellow in Plastic Surgery
Robert Maltz, Assistant in Otolaryngology
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Richard Marchick, Assistant in Obstetrics and Gynecology
Joseph Marmet, Assistant in Obstetrics and Gynecology
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David C. Martz., Assistant in Medicine
Ronald R. Masden, Assistant in Medicine
Edward K. Massin, Assistant in Medicine
Nobuake Matsuo, Assistant in Pediatrics
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Gerald G. Morris, Assistant in Medicine
James C. Morris, III, Assistant in Surgery
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James D. Morrissey, Assistant in Surgery (On Leave of Absence)
Rodrigo Munoz, Assistant in Psychiatry
James L. Murdock, Assistant in Surgery (On Leave of Absence)
Keinosuke Nakagawa, Trainee (NIAMD) in Medicine (Renal Diseases)
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Leonard N. Newmark, Assistant in Medicine
Robert Raymond Newsome, Research Fellow Psychiatry (Medical Psychology)
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Merrill Clayton Oaks, Assistant in Ophthalmology
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David D. Rendleman, Assistant in Medicine
Jean-Louis Reydon, Fellow in Otolaryngology
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ASSISTANTS, FELLOWS, AND TRAINEES

Solomon L. Riley, Jr., Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Bernard A. Rineberg, Assistant in Orthopedic Surgery
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Alan M. Rolson, Trainee (NIAMD) in Medicine (Renal Diseases)
Hector A. Rodriguez, Assistant in Pathology (Surgical Pathology)
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Hsin-Chin Shih, Assistant in Pediatrics
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Richard M. Thorpe, Assistant in Ophthalmology
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Howard N. Ward, Assistant in Medicine
Leonard Wartofsky, Assistant in Medicine
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George H. Zografakis, Fellow in Plastic Surgery
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