# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Board of Trustees of Washington University</td>
<td>4</td>
</tr>
<tr>
<td>Officers of the University Administration</td>
<td>4</td>
</tr>
<tr>
<td>Officers and Committees of the Faculty of the School of Medicine</td>
<td>5</td>
</tr>
<tr>
<td>The Medical Center</td>
<td>7</td>
</tr>
<tr>
<td>Administrative Officers of the School of Medicine</td>
<td>8</td>
</tr>
<tr>
<td>History of the Medical Center</td>
<td>9</td>
</tr>
<tr>
<td>Aims and General Plan of Instruction</td>
<td>12</td>
</tr>
<tr>
<td>Medical School Buildings</td>
<td>15</td>
</tr>
<tr>
<td>Hospitals and Laboratories</td>
<td>15</td>
</tr>
<tr>
<td>Student Activities</td>
<td>17</td>
</tr>
<tr>
<td>Graduate Training</td>
<td>18</td>
</tr>
<tr>
<td>The Library</td>
<td>19</td>
</tr>
<tr>
<td>Calendar</td>
<td>21</td>
</tr>
<tr>
<td>Entrance Requirements</td>
<td>23</td>
</tr>
<tr>
<td>Admission to Advanced Standing</td>
<td>24</td>
</tr>
<tr>
<td>Admission of Graduates in Medicine</td>
<td>24</td>
</tr>
<tr>
<td>Standing and Promotion</td>
<td>24</td>
</tr>
<tr>
<td>Requirements for Degrees</td>
<td>25</td>
</tr>
<tr>
<td>Fees and Other Expenses</td>
<td>26</td>
</tr>
<tr>
<td>Registration</td>
<td>29</td>
</tr>
<tr>
<td>Withdrawals and Refunds</td>
<td>29</td>
</tr>
<tr>
<td>The Spencer T. Olin Residence Hall</td>
<td>29</td>
</tr>
<tr>
<td>Student Research Fellowships</td>
<td>30</td>
</tr>
<tr>
<td>Fellowships and Scholarships</td>
<td>31</td>
</tr>
<tr>
<td>Prizes</td>
<td>36</td>
</tr>
<tr>
<td>Lectureships</td>
<td>38</td>
</tr>
<tr>
<td>Class Schedules</td>
<td>39</td>
</tr>
<tr>
<td>Table of Required Hours</td>
<td>51</td>
</tr>
<tr>
<td>Departments of the School of Medicine</td>
<td>53</td>
</tr>
<tr>
<td>Anatomy</td>
<td>56</td>
</tr>
<tr>
<td>Biological Chemistry</td>
<td>59</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>62</td>
</tr>
<tr>
<td>Microbiology</td>
<td>74</td>
</tr>
<tr>
<td>Neurology</td>
<td>76</td>
</tr>
<tr>
<td>Department</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Obstetrics and Gynecology</td>
<td>79</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>84</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>87</td>
</tr>
<tr>
<td>Pathology</td>
<td>90</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>95</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>99</td>
</tr>
<tr>
<td>Physiology and Biophysics</td>
<td>101</td>
</tr>
<tr>
<td>Preventive Medicine and Public Health</td>
<td>104</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>108</td>
</tr>
<tr>
<td>Radiology</td>
<td>115</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>119</td>
</tr>
<tr>
<td>Surgery</td>
<td>120</td>
</tr>
<tr>
<td>Medical Jurisprudence</td>
<td>129</td>
</tr>
<tr>
<td>Biomedical Computer Laboratory</td>
<td>130</td>
</tr>
<tr>
<td>Teaching and Research Divisions</td>
<td>132</td>
</tr>
<tr>
<td>Division of Gerontology</td>
<td>132</td>
</tr>
<tr>
<td>Institute of Neurology</td>
<td>132</td>
</tr>
<tr>
<td>Neurobiology</td>
<td>132</td>
</tr>
<tr>
<td>Division of Tumor Services</td>
<td>133</td>
</tr>
<tr>
<td>Child Psychiatry</td>
<td>134</td>
</tr>
<tr>
<td>Division of Auxiliary Medical Services</td>
<td>136</td>
</tr>
<tr>
<td>Hospital Administration</td>
<td>136</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>138</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>139</td>
</tr>
<tr>
<td>X-ray Technology</td>
<td>140</td>
</tr>
<tr>
<td>Dietetics</td>
<td>140</td>
</tr>
<tr>
<td>Anesthesia</td>
<td>141</td>
</tr>
<tr>
<td>Medical Alumni Association</td>
<td>143</td>
</tr>
<tr>
<td>Prizes Awarded</td>
<td>144</td>
</tr>
<tr>
<td>Scholarships Awarded</td>
<td>145</td>
</tr>
<tr>
<td>Register of Students</td>
<td>147</td>
</tr>
<tr>
<td>Assistants, Fellows, and Trainees</td>
<td>155</td>
</tr>
<tr>
<td>Index of Staff Members</td>
<td>168</td>
</tr>
<tr>
<td>Academic Divisions of Washington University</td>
<td>180</td>
</tr>
</tbody>
</table>
THE BOARD OF TRUSTEES

CHARLES ALLEN THOMAS  Chairman
JOHN HOPKINS HAYWARD  Vice Chairman
ROBERT HARVEY McROBERTS  Vice Chairman
ROBERT BROOKINGS SMITH  Vice Chairman
CHARLES MELVIN BLAIR  Treasurer
JOE FREEMAN EVANS  Secretary

EUGENE MYRON BRICKER  MORTON DAVID MAY
DAVID RANDOLPH CALHOUN, JR.  STANLEY RAYMOND MILLER
GEORGE HOWARD CAPPs  ISADORE ERWIN MILLSTONE
CLARK McADAMS CLIFFORD  RUTH ELLEN MOORE
FREDERICK LEWIS DEMING  HOWARD JOSEPH MORGENS
PAUL ABRAHAM FREUND  JOHN MERRILL OLIN
RICHARD ALLEN GOODSON  SPENCER TRUMAN OLIN
JOHN KYLE GUSTAFSON  EDWARD ASPURY O'NEAL, JR.
HENRY FREDERICK HAGEMANN, JR.  FREDERIC MARSHALL PEIRCE
WALTER ALFRED HAYES  WARREN MCKINNEY SHAPLEIGH
MEREDITH CABELL JONES  ETHAN ALLEN HITCHCOCK SHEPLEY
WEBB LOUIS KAMMERER  RICHARD KALTER WEIL
JAMES RHINE KILLIAN, JR.

OFFICERS OF THE UNIVERSITY ADMINISTRATION

Thomas Hopkinson Eliot, A.B., LL.B., LL.D.  Chancellor
George Edward Pake, Ph.D., Sc.D.  Executive Vice Chancellor and Provost
Carl Anton Dauten, Ph.D.  Vice Chancellor and Associate Provost
William Henry Danforth, A.B., M.D.  Vice Chancellor for Medical Affairs
George William Hazzard, Ph.D.  Vice Chancellor for Professional Schools and Research
William Nathaniel Papian, S.M.E.E.  Assistant Vice Chancellor, Research
OFFICERS AND COMMITTEES OF THE
FACULTY OF THE SCHOOL OF MEDICINE

**EXECUTIVE FACULTY**

Thomas Hopkinson Eliot  
George Edward Pake  
M. Kenton King  
William H. Danforth

Willard M. Allen  
Oliver H. Lowry  
Robert E. Shank  
Bernard Becker  
Carl V. Moore  
Herman N. Eisen  
Paul E. Lacy  
James L. O'Leary  
Eli Robins  
Sol Sherry  
Juan Taveras

**Chancellor**

P. Roy Vagelos

**Executive Vice Chancellor and Provost**

Joseph Ogura

**Dean**

Walter F. Ballinger II

**Vice Chancellor for Medical Affairs**

Philip R. Dodge

Richard W. Hudgens

William Sleator, Jr.

Sam L. Clark, Jr.

John C. Herweg

Samuel B. Guze

George R. Drysdale¹

Harvey R. Butcher¹

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:

Walter C. Bauer, Chairman  
Neal S. Bricker, Vice Chairman  
Milton Schlesinger, Secretary

Other members of the Executive Committee of the Faculty Council are:

Carl Frieden  
Gerald T. Perkoff  
Jessie L. Ternberg  
William M. Landau  
Malcolm L. Peterson  
Edward H. Reinhard

**STANDING COMMITTEES²**

**MEDICAL EDUCATION**

Paul Lacy, Chairman  
William Daughaday  
Herman Eisen  
Samuel B. Guze  
Ernst Helmreich  
John C. Herweg  
David Kipnis  
David B. McDougal, Jr.  
Henry G. Schwartz

¹ Representing the Faculty Council during 1967-68.

² The Dean is ex officio a member of all standing committees.
<table>
<thead>
<tr>
<th>ADMISSIONS AND SCHOLARSHIPS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>John C. Herweg, Chairman</td>
<td>John L. Schultz</td>
<td></td>
</tr>
<tr>
<td>Joe W. Grisham</td>
<td>Warren G. Stamp</td>
<td></td>
</tr>
<tr>
<td>George Sorenson</td>
<td>Jessie Ternberg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FELLOWSHIPS AND AWARDS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam L. Clark, Jr., Chairman</td>
<td>David E. Kennell</td>
<td></td>
</tr>
<tr>
<td>Harvey R. Butcher</td>
<td>William M. Landau</td>
<td></td>
</tr>
<tr>
<td>William H. Daughaday</td>
<td>P. Roy Vagelos</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROMOTIONS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Willard M. Allen, Chairman</td>
<td>Robert E. Shank</td>
<td></td>
</tr>
<tr>
<td>P. Roy Vagelos</td>
<td>Oliver H. Lowry</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LECTURESHIPS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanford Wessler, Chairman</td>
<td>William T. Newton</td>
<td></td>
</tr>
<tr>
<td>Estelle Brodman, Secretary</td>
<td>David Schlessinger</td>
<td></td>
</tr>
<tr>
<td>Luis Glaser</td>
<td>Mildred Trotter</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BEAUMONT—MAY INSTITUTE OF NEUROLOGY</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>James L. O'Leary, Chairman</td>
<td>Oliver H. Lowry</td>
<td></td>
</tr>
<tr>
<td>Irwin Levy</td>
<td>Henry G. Schwartz</td>
<td></td>
</tr>
</tbody>
</table>
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

Carl V. Moore, Chairman
Willard M. Allen
Walter F. Ballinger II
Bernard Becker
Louis T. Byars
William H. Danforth
Robert B. Dodd
Philip R. Dodge
Robert E. Frank
Marshall B. Greenman
Josephine Hackett

Lilly Hoekstra
M. Kenton King
Paul E. Lacy
Virgil Loeb, Jr.
Robert Lund
Joseph Ogura
James L. O’Leary
William Perry
Eli Robins
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
William M. Landau

Henry G. Schwartz
Robert E. Shank
Juan Taveras
Ralph B. Woolf
ADMINISTRATIVE OFFICERS
SCHOOL OF MEDICINE

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

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

Richard W. Hudgens
M.D., Washington University, 1956.

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

John L. Schultz

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

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

Dean

Associate Dean

Assistant Dean

Assistant to the Dean

Registrar and Secretary to the Executive Faculty

Registrar and Secretary to the Executive Faculty

Emeritus and Consultant to the Dean

Business Manager

OTHER OFFICERS
OF THE SCHOOL OF MEDICINE

Assistant Vice Chancellor for Medical Affairs

Co-ordinator of Pre-Clinical Science Planning

Physician in Charge of Student Health Service at the Medical Center

Administrative Assistant to the Dean

Administrative Assistant to the Dean

Administrative Secretary to the Dean

Assistant Registrar

Director of Alumni Affairs and of News Bureau

Librarian

Benjamin Roth, A.B., LL.B.

David H. Brown, Ph.D.

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

Helen Kaiser

Bernice H. Storrer

Louise Jacoby, A.B.

Dorothy I. Miller

Daniel Cashier, B.S.

Estelle Brodman, Ph.D.
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
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.
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
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. Brokings, 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. Brokings 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 this important concept will be inculcated in each student during his four years in the School of Medicine.

A new curriculum has just been adopted to further these ends. It is the product of prolonged study and discussion by the faculty of the present and probable future state of medical science and medical practice, and of the influence of these on medical education. The curriculum is designed to provide our students, who enter with diverse backgrounds and interests and who will undertake a wide variety of careers, with the basic knowledge and skills essential for their further professional development. The curriculum is based upon the recognition that modern medical education can no longer hope to be comprehensive; it must be selective. At the same time, students must develop facility in the use and understanding of several related, technical languages: those of anatomy, chemistry, physiology, and clinical medicine; and they must also learn how new knowledge is acquired and how old knowledge is re-evaluated.

The curriculum includes a core experience for each student through which he may learn these fundamentals. This core experience is based upon a sequence of courses that will introduce each student to the broad panorama of medicine. The principles, the methods, the problems, and the possibilities in each of the major areas of medical science and medical practice will be presented in such a way as to help the student choose the career best suited to his interests and goals and, at the same time, understand how his area of interest is related to the other areas.

The elective program will permit the student to decide where his interests lie and to pursue these interests. It will also enable the student to benefit more fully from the wide range of specialized knowledge and abilities of the faculty. The core curriculum cannot provide enough time for each student to be introduced to each of these specialized areas, but the elective program will permit each student, according to his own interests, to become exposed to more of these areas.

The major curriculum changes include the greatly expanded elective program, the new courses in Genetics and Radiology, the revised and expanded courses in Pathophysiology, the increased co-ordination between the courses in Pathophysiology and those in Pathology and Pharmacology, the increased co-ordination between the courses in Neuroanatomy and Neurophysiology, and the generally more satisfactory sequence of all the preclinical courses.

Each academic year is thirty-six weeks long, except for the third year, which is forty-eight weeks long. The first two years are divided into semesters, while the third year is divided into quarters. The fourth or elective year may be divided in different ways depending upon the electives chosen.
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
HOSPITALS AND LABORATORIES

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.

The Seven Hundred South Euclid and the 724 South Euclid buildings provide space for the Biomedical Computer and Computer Research Laboratories, the Division of Biostatistics, the Department of Hospital Administration, and the School of Physical Therapy, and several research laboratories.
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 lecturerships 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 LIBRARY

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 and stacks house about 100,000 volumes, including more than 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, Evarts Graham, Edmund V. Cowdry, Robert J. Terry, and others. The Library receives regularly about 1,600 journals and most of the indexes and abstracts pertaining to medicine and allied fields, and adds about 3,000 volumes each year. It also houses a small collection of medical portraits, as well as the Martin Collection on art and medicine. 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 serious students for consultation, but persons not connected with the Medical Center, may not 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, Terence W. Cassidy, and Phoebe Anderson, 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.
### 1967

<table>
<thead>
<tr>
<th>SEPTEMBER</th>
<th>OCTOBER</th>
<th>NOVEMBER</th>
<th>DECEMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td>1 2 3 4 5 6 7 8 9</td>
</tr>
<tr>
<td>24 25 26 27 28 29 30</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>

### 1968

<table>
<thead>
<tr>
<th>JANUARY</th>
<th>FEBRUARY</th>
<th>MARCH</th>
<th>APRIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td>10 11 12 13 14 15 16 17 18 19 20 21</td>
<td>22 23 24 25 26 27 28 29 30 31</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30</td>
</tr>
<tr>
<td>24 25 26 27 28 29 30 31</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUGUST</th>
</tr>
</thead>
<tbody>
<tr>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30</td>
<td>31</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30</td>
<td>31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEPTEMBER</th>
<th>OCTOBER</th>
<th>NOVEMBER</th>
<th>DECEMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td>10 11 12 13 14 15 16 17 18 19 20</td>
<td>21 22 23 24 25 26 27 28 29 30 31</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31</td>
</tr>
<tr>
<td>24 25 26 27 28 29 30 31</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>

### 1969

<table>
<thead>
<tr>
<th>JANUARY</th>
<th>FEBRUARY</th>
<th>MARCH</th>
<th>APRIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td>10 11 12 13 14 15 16 17 18 19 20</td>
<td>21 22 23 24 25 26 27 28 29 30 31</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30</td>
</tr>
<tr>
<td>24 25 26 27 28 29 30 31</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARCH</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUGUST</th>
</tr>
</thead>
<tbody>
<tr>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30</td>
<td>31</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30</td>
<td>31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEPTEMBER</th>
<th>OCTOBER</th>
<th>NOVEMBER</th>
<th>DECEMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
<td>S M T W T F S</td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9</td>
<td>10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30</td>
<td>31</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31</td>
</tr>
<tr>
<td>24 25 26 27 28 29 30 31</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>
CALENDAR

1967-68

Registration for all new students, Wednesday, September 6, 1967.
Registration for all former students, Friday, September 8, 1967.
First trimester ends Saturday, December 2, 1967.
Christmas Recess, Saturday, December 16, 1967, at 1:00 p.m. to Tuesday, January 2, 1968, at 8:00 a.m.
Registration for second half-year, Monday, January 29, 1968.
Third trimester begins Monday, March 11; ends Saturday, June 1, 1968.
Holidays, Good Friday, April 12, and Saturday, April 13, 1968.
Senior Research Program, Wednesday, March 27, 1968.
Commencement, Sunday, June 2, 1968.

1968-69

Summer quarter for juniors begins June 24; ends September 14, 1968.
Registration for all new students, Wednesday, September 11, 1968.
Registration for all former students, Friday, September 13, 1968.
Fall quarter begins Monday, September 16; ends Saturday, December 7, 1968.
Christmas Recess, Saturday, December 21, at 1:00 p.m. to Monday, January 6, 1969, at 8:00 a.m.
Spring quarter begins Monday, March 17; ends Saturday, June 7, 1969.
Holidays, Good Friday, April 4, and Saturday, April 5, 1969.
Commencement, Sunday, June 8, 1969.
Edward Mallinckrodt Institute of Radiology

St. Louis Children's Hospital
ENTRANCE REQUIREMENTS

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:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry</td>
<td>15</td>
</tr>
<tr>
<td>Physics</td>
<td>8</td>
</tr>
<tr>
<td>Biology</td>
<td>8</td>
</tr>
</tbody>
</table>

(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 presprofessional 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 will be required to withdraw from the class.

(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 in not more than three 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.

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 first degree students the present tuition is $1,800, payable in two equal installments, at the beginning of the first and second semesters.

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 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.

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, nor may courses be taken in a division of the University other than the College or the Graduate School of Arts and Sciences.
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 (1968-69)

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>Expense</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$1,800</td>
</tr>
<tr>
<td>Health Service Fee</td>
<td>90</td>
</tr>
<tr>
<td>Books and Instruments</td>
<td>$150 to 250</td>
</tr>
<tr>
<td>Room, Board, and Incidentals</td>
<td>1,700 to 2,200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,740</strong></td>
</tr>
</tbody>
</table>

|                       | **$4,340**   |

27
The Spencer T. Olin Residence Hall for medical students.
REGISTRATION

Registration for the first half-year of 1967-68 is scheduled for Wednesday, September 6 (new students) and Friday, September 8 (former students); for the second half-year, Monday, January 29, 1968.

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:

- **Central**
  - Arkansas
  - Kansas
  - Louisiana
  - Oklahoma
  - Texas
  - Canal Zone

- **East—Southeast**
  - Alabama
  - Delaware
  - Florida
  - Georgia
  - Kentucky
  - Maryland
  - Mississippi
  - New Jersey
  - North Carolina
  - Pennsylvania
  - South Carolina
  - Tennessee
  - Virginia
  - West Virginia
  - Washington, D. C.
  - Puerto Rico
  - Virgin Islands

- **Local—Central**
  - Missouri

- **Mid-Western**
  - Illinois
  - Indiana
  - Ohio

- **Northern**
  - Idaho
  - Iowa
  - Michigan
  - Minnesota
  - Montana
  - Nebraska
  - North Dakota
  - South Dakota

- **Western**
  - Alaska
  - Arizona
  - California
  - Colorado
  - Hawaii
  - Nevada
  - New Mexico
  - Oregon
  - Utah
  - Washington
  - Pacific Islands

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
FELLOWSHIPS AND SCHOLARSHIPS

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.
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 $31,234 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, established by federal legislation, makes funds available to the Washington University School of Medicine for long term loans at favorable rates.

THE HEALTH PROFESSIONS SCHOLARSHIP FUND enables talented students from low income families to undertake the course of study required to become physicians or doctors in other health professions.

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.
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. CHOKE 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 BRYCE 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 ANTOINETTE FRANCES DAMES PRIZE IN PHYSIOLOGY AND BIOPHYSICS is awarded annually to a member of the first-year class who has demonstrated superior scholarship in these fields.

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 neurology and psychiatry.

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.
LECTURESHIPS

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., Lectureship. Established by friends interested in pediatrics to provide an annual lecture in Dr. Hartmann's honor.
## FIRST SEMESTER—September 11, 1967, through January 27, 1968

<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>
<td>Anatomy</td>
<td>Biochemistry</td>
<td>Anatomy</td>
<td>Biochemistry</td>
<td>Anatomy</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>10 to 11</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>11 to 12</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>12 to 1</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>2 to 3</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>3 to 4</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Psychiatry</td>
</tr>
<tr>
<td>4 to 5</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

## SECOND SEMESTER—January 29 through June 1, 1968

<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>
<td>Physiology</td>
<td>Microbiology (8-12)</td>
<td>Neuroanatomy</td>
<td>Microbiology (8-11)</td>
<td>Neuroanatomy</td>
<td>Genetics</td>
</tr>
<tr>
<td>10 to 11</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Biology</td>
<td>Biostatistics</td>
</tr>
<tr>
<td>11 to 12</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>12 to 1</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>2 to 3</td>
<td>&quot;</td>
<td>Microbiology</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>3 to 4</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>4 to 5</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>
## FIRST SEMESTER—September 16, 1968, through February 1, 1969

<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>
<td>Anatomy</td>
<td>Biochemistry</td>
<td>Anatomy</td>
<td>Biochemistry</td>
<td>Anatomy</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>10 to 11</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>11 to 12</td>
<td>&quot;</td>
<td>Free</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>12 to 1</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>2 to 3</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>3 to 4</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Psychiatry</td>
<td>&quot;</td>
</tr>
<tr>
<td>4 to 5</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

## SECOND SEMESTER—February 3, 1969, through June 5, 1969

<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>
<td>Physiology</td>
<td>Neuroanatomy</td>
<td>Microbiology</td>
<td>Microbiology</td>
<td>Neuroanatomy</td>
<td>Microbiology</td>
</tr>
<tr>
<td>10 to 11</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>11 to 12</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Genetics</td>
<td>&quot;</td>
<td>Biostatistics</td>
</tr>
<tr>
<td>12 to 1</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>2 to 3</td>
<td>&quot;</td>
<td>Free</td>
<td>&quot;</td>
<td>Free</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>3 to 4</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>4 to 5</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>
# CLASS SCHEDULE • SECOND YEAR • 1967-68

## FIRST SEMESTER—September 11, 1967, through January 27, 1968

<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>
<td>Pathology</td>
<td>Phys. Dia.</td>
<td>Pathology</td>
<td>Pathology</td>
<td>Pathology</td>
<td>Pathology</td>
</tr>
<tr>
<td>10 to 11</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>11 to 12</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>12 to 1</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>2 to 3</td>
<td>Pathophys.</td>
<td>Free</td>
<td>Pathophys.</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>3 to 4</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Hy. of Med.</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>4 to 5</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

## SECOND SEMESTER—January 29 through June 1, 1968

<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>8 to 9</td>
<td>Pathophys.</td>
<td>Microbiology</td>
<td>Prev. Med.</td>
<td>Microbiology</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>9 to 10</td>
<td>Radiology</td>
<td>Pediatrics</td>
<td>Pharmacology</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>10 to 11</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>11 to 12</td>
<td>Neurology</td>
<td>Eye/Ent</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>1 to 2</td>
<td>Surgery</td>
<td>Pathophys.</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Lab. Dia.</td>
<td>&quot;</td>
</tr>
<tr>
<td>2 to 3</td>
<td>&quot;</td>
<td>Microbiology</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>3 to 4</td>
<td>Ob.Gyn.</td>
<td>Psychiatry</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>4 to 5</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Pathophys.</td>
<td>&quot;</td>
</tr>
<tr>
<td>Hours</td>
<td>Monday</td>
<td>Tuesday</td>
<td>Wednesday</td>
<td>Thursday</td>
<td>Friday</td>
<td>Saturday</td>
</tr>
<tr>
<td>--------</td>
<td>------------</td>
<td>------------</td>
<td>-------------</td>
<td>------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>9 to 10</td>
<td>Pathology</td>
<td>&quot;</td>
<td>Pathology</td>
<td>&quot;</td>
<td>Pathology</td>
<td>&quot;</td>
</tr>
<tr>
<td>10 to 11</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>11 to 12</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>12 to 1</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>2 to 3</td>
<td>Pathophys.</td>
<td>Free</td>
<td>Pathophys.</td>
<td>Free</td>
<td>Pathophys.</td>
<td>&quot;</td>
</tr>
<tr>
<td>3 to 4</td>
<td>&quot;</td>
<td></td>
<td>Hy. of Med.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECOND SEMESTER—February 3, 1969, through June 5, 1969

<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>10 to 11</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>11 to 12</td>
<td>Neurology</td>
<td>Eye/Ent</td>
<td>&quot;</td>
<td>Ob-Gyn.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 1</td>
<td>Surgery</td>
<td>Free</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Free</td>
<td>Lab. Diag.</td>
</tr>
<tr>
<td>1 to 2</td>
<td>&quot;</td>
<td></td>
<td>&quot;</td>
<td></td>
<td>&quot;</td>
<td></td>
</tr>
<tr>
<td>2 to 3</td>
<td>&quot;</td>
<td></td>
<td>&quot;</td>
<td></td>
<td>&quot;</td>
<td></td>
</tr>
<tr>
<td>3 to 4</td>
<td>&quot;</td>
<td></td>
<td>&quot;</td>
<td></td>
<td>&quot;</td>
<td></td>
</tr>
<tr>
<td>4 to 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# CLASS SCHEDULE • THIRD YEAR • 1967-68

## MEDICINE SERVICE

<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>
<td>Group A—First Trimester, September 11 through December 2, 1967.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 to 11</td>
<td>Group C—Second Trimester, December 4-16, 1967, and January 2 through March 9, 1968.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 to 12</td>
<td>Group B—Third Trimester, March 11 through June 1, 1968.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 1</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>2 to 3</td>
<td>Section I—City Hospital or Veterans Administration Hospital.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 to 4</td>
<td>Section II—Barnes Hospital or Jewish Hospital.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 5</td>
<td>Sections change at end of 6-week period.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## 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>
<td>Group A—Second Trimester, December 4-16, 1967, and January 2 through March 9, 1968.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 to 11</td>
<td>Group B—First Trimester, September 11 through December 2, 1967.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 to 12</td>
<td>Group C—Third Trimester, March 11 through June 1, 1968.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 1</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>2 to 3</td>
<td>Section I—Surgery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 to 4</td>
<td>Section II—Group a. Psychiatry b. Neurology</td>
<td>Groups change at end of 3 weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 5</td>
<td>Sections change at the end of 6-week period.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 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.
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>10 to 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<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 12 to 1:30*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 to 3</td>
<td>Section I—Pediatrics Section II—Obstetrics and Gynecology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 to 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 5</td>
<td>Sections change at end of 6-week period.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Surgery first two trimesters. Ophthalmology first seven weeks of third trimester. Otolaryngology last five weeks of third trimester.
# CLASS SCHEDULE • THIRD YEAR • 1968-69

## MEDICINE SERVICE

<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>
<td>Group A—Summer Quarter, June 24 through September 14, 1968.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 to 11</td>
<td>Group D—Fall Quarter, September 16 through December 7, 1968.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 to 12</td>
<td>Group C—Winter Quarter, December 9-21 and January 6 through March 15, 1969.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 1</td>
<td>Group B—Spring Quarter, March 17 through June 7, 1969.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 2</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>2 to 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 to 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## 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>
<tbody>
<tr>
<td>9 to 10</td>
<td>Group A—Fall Quarter, September 16 through December 7, 1968.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 to 11</td>
<td>Group B—Summer Quarter, June 24 through September 14, 1968.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 1</td>
<td>Group C—Spring Quarter, March 17 through June 7, 1969.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 2</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>2 to 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 to 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# CLASS SCHEDULE—THIRD YEAR—1968-69

**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>9 to 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 to 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<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></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 to 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 to 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lectures 12 to 1:30 C P C Ob. & Gyn. Medicine Clinic

Section I—Pediatrics
Section II—Obstetrics and Gynecology
Sections change at end of 6-week period.

**PSYCHIATRY SERVICE, 6 weeks; NEUROLOGY SERVICE, 3 weeks; ENT SERVICE, 2 weeks; EYE Service, 1 week**

<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>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 to 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<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></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 to 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 to 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lectures 12 to 1:30 C P C Ob. & Gyn. Medicine Clinic

Section I—Psychiatry
Section II—Neurology, ENT, and EYE
Sections change at end of 6-week period
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>
<tbody>
<tr>
<td>11 to 12</td>
<td>CPC Medicine Clinic</td>
<td>Medicine Clinic</td>
<td>Medicine Clinic</td>
<td>Medicine Clinic</td>
<td>Medicine Clinic</td>
<td>Medicine Clinic</td>
</tr>
<tr>
<td>12 to 1</td>
<td>Section I—Medicine (Barnes Hospital Wards), 6 weeks.</td>
<td>Section I—Medicine (Barnes Hospital Wards), 6 weeks.</td>
<td>Section I—Medicine (Barnes Hospital Wards), 6 weeks.</td>
<td>Section I—Medicine (Barnes Hospital Wards), 6 weeks.</td>
<td>Section I—Medicine (Barnes Hospital Wards), 6 weeks.</td>
<td>Section I—Medicine (Barnes Hospital Wards), 6 weeks.</td>
</tr>
<tr>
<td>3 to 4</td>
<td>Group b. Ophthalmology, 1 week. (Groups change at end of 3 weeks)</td>
<td>Group b. Ophthalmology, 1 week. (Groups change at end of 3 weeks)</td>
<td>Group b. Ophthalmology, 1 week. (Groups change at end of 3 weeks)</td>
<td>Group b. Ophthalmology, 1 week. (Groups change at end of 3 weeks)</td>
<td>Group b. Ophthalmology, 1 week. (Groups change at end of 3 weeks)</td>
<td>Group b. Ophthalmology, 1 week. (Groups change at end of 3 weeks)</td>
</tr>
<tr>
<td>4 to 5</td>
<td>Sections change at end of 6-week period.</td>
<td>Sections change at end of 6-week period.</td>
<td>Sections change at end of 6-week period.</td>
<td>Sections change at end of 6-week period.</td>
<td>Sections change at end of 6-week period.</td>
<td>Sections change at end of 6-week period.</td>
</tr>
</tbody>
</table>

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>
<tbody>
<tr>
<td>11 to 12</td>
<td>CPC Medicine Clinic</td>
<td>Medicine Clinic</td>
<td>Medicine Clinic</td>
<td>Medicine Clinic</td>
<td>Medicine Clinic</td>
<td>Medicine Clinic</td>
</tr>
<tr>
<td>12 to 1</td>
<td>Surgery Clerkship (General Surgery, the Specialties, and Anesthesiology)</td>
<td>Surgery Clerkship (General Surgery, the Specialties, and Anesthesiology)</td>
<td>Surgery Clerkship (General Surgery, the Specialties, and Anesthesiology)</td>
<td>Surgery Clerkship (General Surgery, the Specialties, and Anesthesiology)</td>
<td>Surgery Clerkship (General Surgery, the Specialties, and Anesthesiology)</td>
<td>Surgery Clerkship (General Surgery, the Specialties, and Anesthesiology)</td>
</tr>
</tbody>
</table>

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 A—Third trimester, March 11 through June 1, 1968.
Group B—Second trimester, December 4-16, 1967, and January 2 through March 9, 1968.
Group C—First trimester, September 11 through December 2, 1967.

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

<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></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>1</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></td>
</tr>
<tr>
<td>2</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>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>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>Noon Clinics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CPC</td>
<td>Medicine Clinics</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 1-5</td>
</tr>
<tr>
<td>1</td>
<td>Dermatology 6-10</td>
<td>Dermatology 1-5</td>
<td>Dermatology 16-20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Neurology 16-20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Prev. Med. 11-20</td>
<td>Amputee 6-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 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.

48
### CLASS SCHEDULE—FOURTH YEAR—1967-68

#### 9 a.m. - noon

<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>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>Ob. &amp; Gyn. 11-15</td>
<td>CPC</td>
<td>Ob. &amp; Gyn. 1-5</td>
<td>Ob. &amp; Gyn. 11-15</td>
<td>Ob. &amp; Gyn. 1-5</td>
<td>Ob. &amp; Gyn. 1-5</td>
</tr>
</tbody>
</table>

#### Noon

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

* 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 11 through December 2, 1967.
- **Group B**—Summer term, June 19 through September 9, 1967.
- **Group C**—Third trimester, March 11 through June 1, 1968.
- **Group D**—Second trimester, December 4-16, 1967, and January 2 through March 9, 1968.
ELECTIVE YEAR. This is a 48-week year, but each student is required to attend for only 36 weeks.

“A” electives

“B” electives

| 6 weeks | 6 weeks | 6 weeks | 6 weeks | 6 weeks | 6 weeks | 6 weeks | 6 weeks |

“A” Electives

These seminar courses will take 2 to 4 hours a week for 12 or 18 weeks. Hopefully, they will all be given in the late afternoon on Tuesdays and Thursdays in order to facilitate scheduling and planning. Each student must complete at least two of these courses to graduate. Most students will take these seminars concurrently with “B” electives, but selected students could take them during semesters two, three, or four.

“B” Electives

These electives include advanced clinical clerkships in any of the clinical departments, research in any department, and other special full-time courses in Preventive Medicine (nutrition, outpatient medicine) or Anatomy (special dissection), etc. Most students will take “B” electives after completing the clinical year, but these electives could precede the clinical year, or be interspersed among the quarters of the clinical year. An individual student might even decide to take his elective year after completing semesters one and two.
TABLE OF REQUIRED HOURS — 1967-1968

<table>
<thead>
<tr>
<th>First Year</th>
<th>Clock Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>432</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>216</td>
</tr>
<tr>
<td>Physiology</td>
<td>234</td>
</tr>
<tr>
<td>Microbiology</td>
<td>180</td>
</tr>
<tr>
<td>Biostatistics</td>
<td>54</td>
</tr>
<tr>
<td>Genetics</td>
<td>36</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>1,188</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Clock Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathology</td>
<td>342</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>180</td>
</tr>
<tr>
<td>Pathophysiology</td>
<td>234</td>
</tr>
<tr>
<td>Laboratory Diagnosis</td>
<td>54</td>
</tr>
<tr>
<td>Clinical Diagnosis</td>
<td>54</td>
</tr>
<tr>
<td>Physical Diagnosis</td>
<td>72</td>
</tr>
<tr>
<td>Surgery</td>
<td>36</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>36</td>
</tr>
<tr>
<td>Obstetrics and Gynecology</td>
<td>36</td>
</tr>
<tr>
<td>Radiology</td>
<td>36</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>36</td>
</tr>
<tr>
<td>Preventive Medicine</td>
<td>18</td>
</tr>
<tr>
<td>Ent/Eye</td>
<td>18</td>
</tr>
<tr>
<td>Neurology</td>
<td>18</td>
</tr>
<tr>
<td>History of Medicine</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>1,188</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>Clock Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery Clerkship</td>
<td>198</td>
</tr>
<tr>
<td>Psychiatry Clerkship</td>
<td>117</td>
</tr>
<tr>
<td>Neurology Clerkship</td>
<td>117</td>
</tr>
<tr>
<td>Otolaryngology Lectures</td>
<td>10</td>
</tr>
<tr>
<td>Ophthalmology Lectures</td>
<td>7</td>
</tr>
<tr>
<td>Surgery Lectures</td>
<td>36</td>
</tr>
<tr>
<td>Clinical Pathological Conference</td>
<td>36</td>
</tr>
<tr>
<td>Medicine Clerkship</td>
<td>384</td>
</tr>
<tr>
<td>Medicine Lectures</td>
<td>36</td>
</tr>
<tr>
<td>Pediatrics Clerkship</td>
<td>198</td>
</tr>
<tr>
<td>Obstetrics and Gynecology Clerkship</td>
<td>198</td>
</tr>
<tr>
<td></td>
<td>1,337</td>
</tr>
</tbody>
</table>
# TABLE OF REQUIRED HOURS

## Fourth Year

<table>
<thead>
<tr>
<th>Course</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>

**Clinic hours**

<table>
<thead>
<tr>
<th>Course</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 for four years 4,967 clock hours**
DEPARTMENTS OF
THE SCHOOL OF MEDICINE

ANATOMY

BIOLOGICAL CHEMISTRY

INTERNAL MEDICINE – DERMATOLOGY

MICROBIOLOGY

NEUROLOGY

OBSTETRICS AND GYNECOLOGY

OPHTHALMOLOGY

OTOARYNGOLOGY

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.
DEPARTMENT OF ANATOMY

The anatomical sciences are presented in two required courses (gross anatomy, microscopic anatomy) and elective courses. 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.
**ANATOMY**

**Associate Professor and Acting Head of the Department**
Sam L. Clark, Jr., M.D., Harvard University, 1949.

**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)

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

Mildred Trotter, A.B., Mount Holyoke College, 1921; 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) (Also Lecturer)

**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)

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


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 Professors**

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

William F. Marovitz, B.A., University of California, 1962; Ph.D., 1966. (See Department of Otolaryngology)

**Instructor**
David N. Menton, B.S., Mankato State College, 1959; Ph.D., Brown University, 1966.

**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)

**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.

**FIRST YEAR**

10 (501). *Gross Anatomy.* The course is based on dissection 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. Fresh organs are provided for demonstration and dissection at appropriate 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. 342 hours.

11 (506 and 507). Microscopic Anatomy. Each student is required to have his own microscope, and is loaned a collection of prepared slides. Fresh tissues are 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. 90 hours.

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.)
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
Carl F. Cori, M.D., University of Prague, 1920; Sc.D., Yale University, 1946; Sc.D., Western Reserve University, 1946; Sc.D., Boston University, 1948; Sc.D., Cambridge University, 1949; Sc.D., Washington University, 1966. (On leave of absence)

Professors
David H. Brown, B.S., California Institute of Technology, 1942; Ph.D., 1948.
BIOLOGICAL CHEMISTRY

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.

Philipp Strittmatter, B.S., Juniata College, 1949; Ph.D., Harvard University, 1954.

Associate Professors

George R. Drysdale, B.S., Birmingham-Southern College, 1948; M.S., University of Wisconsin, 1950; Ph.D., 1952.

Ernst Helmreich, M.B., University of Munich, 1945; M.D., University of Erlangen, 1949.


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

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

Philip W. Majerus, M.D., Washington University, 1961. (See Department of Medicine)

Garland R. Marshall, B.S., California Institute of Technology, 1962; Ph.D., Rockefeller University, 1966. (See Department of Physiology and Biophysics)

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

Research Assistant Professor

Paul W. Preisler, B.S., Chem.E., Washington University, 1923; M.S., 1925; Ph.D., 1927; L.L.B., St. Louis University, 1931.

Instructor


Research Instructor


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; first semester. 216 hours. Graduate student credit: 10 units; lectures only: 4 units.

ELECTIVE COURSES

50 (505). Enzyme Kinetics and Mechanisms. Current concepts of enzyme activity with reference to the mechanism of enzyme catalyzed reactions and to kinetic theory. Three class hours a week. Credit 3 units.

51 (506). Selected Topics in Intermediary Metabolism. The regulation of metabolic pathways, protein-protein interactions, the biosynthesis and interconversions of various carbohydrates and lipids.

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.
52 (507). Macromolecular Structure. Topics to be covered include the structure of proteins and nucleic acids and discussion of instrumentation related to determination of their physical properties. Three class hours a week. 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 (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.
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
- Cardiovascular Disease: Dr. J. Smith, Dr. Brent Parker
- Dermatology: Dr. Gass
- 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.

**Busch Professor and Head of the Department**


**Professor and Co-Head of the Department**

Sol Sherry, A.B., New York University, 1935; M.D., 1939.

**Professors**

Neal S. Bricker, A.B., University of Colorado, 1945; M.D., 1949.

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

William H. Danforth, A.B., Princeton University, 1947; M.D., Harvard University, 1951. (Established Investigator of the American Heart Association)

William Hamilton Daughaday, A.B., Harvard University, 1940; M.D., 1943.

Hebert R. Domke (Public Health), S.B., University of Chicago, 1939; M.D., 1942; M.P.H., Harvard University, 1948; D.P.H., 1959. (See Department of Preventive Medicine and Public Health) (Hospital Commissioner of St. Louis and Acting Director of Health and Hospitals)

Carl Gayler Harford, A.B., Amherst College, 1928; M.D., Washington University, 1933. M. Kenton King, B.A., University of Oklahoma, 1947; M.D., Vanderbilt University, 1951. (See Department of Preventive Medicine and Public Health)

David M. Kipnis, A.B., Johns Hopkins University, 1945; M.A., 1949; M.D., University of Maryland, 1951.

John Esben Kirk, M.D., University of Copenhagen, 1929. (See Gerontology)

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 Adaline Simon Professor. (Jewish Hospital)

Professors 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.

Associate Professors
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., 1913; M.D., 1940.
Charles Ward Parker, M.D., Washington University, 1953.
Horace Mitchell Perry, M.D., Washington University, 1946. (Cochran Veterans Administration Hospital)
John A. Pierce, M.D., University of Arkansas, 1948. (Also Cochran Veterans Administration Hospital)

Research Associate Professor
Norma A. Fletcher, M.S. (Chemical Engineering), The Technical University, Copenhagen, 1949; Ph.D., University of Copenhagen, 1965.
Virginia Minnich, B.S., Ohio State University, 1937; M.S., Iowa State College, 1938.

Associate Professors (Clinical)
Paul O. Hagemann, A.B., Washington University, 1930; M.D., 1934.

Michael M. Karl, B.S., University of Wisconsin, 1936; M.D., University of Louisville, 1938.
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
Umit T. Aker, M.D., Istanbul University, 1954.
France Alexander, A.B., Indiana University, 1950; M.D., 1953. (Homer G. Phillips Hospital)
Louis V. Aviole, B.A., Princeton University, 1953; M.D., Yale University, 1957. (Jewish Hospital)
Fedor Bachmann, M.D., University of Zurich, 1953. (City Hospital)
Thomas R. Cate, A.B., Vanderbilt University, 1959; M.D., 1959.
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 L. 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)
Rex L. Jamison A.B., University of Iowa, 1955; B.A. (Animal Physiology), Oxford University, 1957, as Rhodes Scholar; M.D., Harvard University, 1960. (Jewish Hospital)
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.
George Kobayashi (Mycology-Dermatology), B.S., University of California, 1952; Ph.D., Tulane University, 1963. (See Department of Microbiology)
Stuart A. Kornfield, A.B., Dartmouth College, 1958; M.D., Washington University, 1962. (Faculty Associate, American Cancer Society)
J. Russell Little, Jr., A.B., Cornell University, 1952; M.D., University of Rochester, 1956. (See Department of Microbiology) (Jewish Hospital)
Herbert Lubowitz, A.B., Clark University, 1954; M.D., Washington University, 1958.
Philip W. Majerus, M.D., Washington University, 1961. (See Department of Biological Chemistry) (American College of Physicians Scholar; Faculty Associate, American Cancer Society)
James Edward McGuigan, B.S., Seattle University, 1952; M.D., St. Louis University, 1956.
G. Charles Oliver, A.B., Harvard University, 1953; M.D., 1957.
C. Kirk Osterland, M.D., University of Manitoba, 1956. (See Department of Preventive Medicine and Public Health)
James C. Peden, Jr., A.B., Haverford College, 1951; M.D., Washington University, 1955. (See Department of Preventive Medicine and Public Health)
David L. Rimoin, B.S., McGill University, 1957; M.D., C.M., 1961; M.S., 1961; Ph.D., Johns Hopkins University, 1967.
Arthur Sakamoto, A.B., Ohio University, 1943; M.D., University of Rochester, 1950. (Cochran Veterans Administration Hospital)
Irwin Schultz, B.A., New York University, 1949; M.D., 1954. (City Hospital)
Eduardo Slatopolsky, M.D., University of Buenos Aires, 1959.
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) (On leave of absence)
Robert D. Utiger, B.A., Williams College, 1953; M.D., Washington University, 1957. (Markle Scholar)
John D. Vavra, B.A., University of Colorado, 1950; M.D., Washington University, 1954. (See Department of Preventive Medicine and Public Health)
R. Dean Wochner, A.B., Arizona State College, 1956; M.D., Washington University, 1960. (City Hospital)

Research Assistant Professors
Mary L. Parker, B.S., Florida State University, 1946; M.S., 1949; M.D., Washington University, 1953. (See Department of Pediatrics)
Mabel L. Purkerson, A.B., Erskine College, 1951; M.D., Medical College of South Carolina, 1956. (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.

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.
Francis Joseph Catanzaro, M.D., Washington University, 1948.
Adolph H. Conrad, Jr. (Dermatology), A.B., Washington University, 1931; M.D., 1933.
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.

Assistant Professors (Clinical)
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.

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.

Robert C. Kingsland, A.B., Washington University, 1933; M.D., 1937.

Norman P. Knowlton, Jr., B.S., Harvard University, 1942; M.D., 1945.

Marvin Levin, A.B., Harvard University, 1947; M.D., 1951. (See Department of Preventive Medicine and Public Health)

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.

Robert Paine, M.D., Harvard University, 1944. (St. Luke's Hospital)

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, 1933; M.D., 1939.

Marvin Rosecan, B.S., Washington University, 1949; M.D., 1949.

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

Llewellyn Sale, Jr., A.B., Yale University, 1926; 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)

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

Jacques J. Bourgoignie, M.D., Catholic University of Louvain, Belgium, 1958.

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


Leonard Jarett (Markle Scholar), B.A., Rice University, 1958; M.D., Washington University, 1962. (See Department of Pathology)


66
Reginald P. Pugh, B.A., University of Michigan, 1953; M.D., 1955. (Ellis Fischel State Cancer Hospital)

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

Alan M. Robson, M.B., B.S., University of Durham, 1959; M.D., 1961. (See Department of Pediatrics)

Shabbir Safdar, M.D., Nishtar Medical College (Pakistan), 1961.


Franz U. Steinberg, M.D., University of Berne, 1938. (See Department of Preventive Medicine and Public Health) (Jewish Hospital)

Peter N. Walsh, B.A., Amherst College, 1957; M.D., Washington University, 1961. (On leave of absence)

John F. Wilber, A.B., Amherst College, 1957; M.D., Harvard University, 1961. (See Department of Pediatrics)

Michiyasu Awai, B.S., Osaka College of Technology, 1948; M.D., Okayama University, 1953; Ph.D., Med., 1959.

Irene E. Karl, B.S., University of Wisconsin, 1937; M.D., 1938; Ph.D., 1940.

Teofil Kheim (Gerontology), M.D., University of Budapest, 1934. (See Division of Gerontology)

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.


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.

Jehn 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.

Mauri Feldaker (Dermatology), A.B., Washington University, 1949; M.D., 1950.

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. (On leave of absence)

J. Allen Thiel, B.S., Rockhurst College, 1956; M.D., St. Louis University, 1960.

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, 1919; M.D., 1935.

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.

Martin F. Engman, Jr. (Dermatology), M.D. Washington University, 1928.

Harry W. Wiese, B.S., Washington University, 1920; M.D., 1922.

Research Assistants

Margaret Williams Erlanger, B.A., University of Iowa, 1932; M.S., 1938. (Cochran Veterans Administration Hospital)

Corinne Reeder Hammer, B.S., Washington University, 1966.

Mary Chapman Johnson, A.B., Washington University, 1938.

Sook Won Lee, B.S., Seoul National University (Korea), 1957; M.S., George Peabody College, 1962. (Jewish Hospital)

Ida Kozak Mariz, A.B., Washington University, 1940.

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)

Aniece A. Yunice, 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.
Teaching by the Department of Medicine in the second year is designed to (a) prepare the student for the transition from the preclinical sciences to the study of the sick patient at the bedside; (b) help him analyze the manifestations of disease in terms of the altered mechanism responsible for these changes; and (c) introduce him to those special technics of examination which will be used constantly with the beginning of junior clerkships. This instruction will at times be undertaken jointly with members of other clinical departments, and will be co-ordinated when practicable with subject matter presented by the Department of Pathology.


(a) Pathologic Physiology. Observation and interpretation of the symptoms and signs of disease, with special reference to pathologic physiology. An interdepartmental course in which the Department of Medicine will participate. 234 hours. (Dr. Peterson and Staff)

(b) Clinical Diagnosis. Lectures, demonstrations, and practical exercises in the technique of clinical diagnosis. 54 hours. (Drs. Garfinkel, Smith, and Staff)

(c) Laboratory Methods of Diagnosis. Lectures and laboratory course in microscopic, bacteriological, serological, and chemical methods of diagnosis. 54 hours. (Dr. E. B. Brown and Staff)

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. (Drs. Reinhard, Perkoff, M. Perry, Wessler, and Staff)

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. 198 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, Vavra, and Staff)

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

(Drs. Gass, 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.

(Dr. Perkoff 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, to work in clinics and to attend ward rounds and conferences. Individual training in clinical and laboratory examinations pertinent to cutaneous and venereal diseases.

(Drs. Gass, Kobayashi, and Staff)
53. Medical Specialty Clinics. Four students, eight half days a week for six weeks. Hematology, metabolism arthritis, hypertension, allergy, chest, gastrointestinal. Students examine and treat patients under supervision of consultants. Emphasis on specialized diagnostic procedures and therapeutic measures.

(Drs. Bricker, E. Brown, Daughaday, A. Goldman, Hagemann, Hampton, Kipnis, Lane, McBryde, Massie, Osterland, C. Parker, H. M. Perry, Peterson, Pierce, Rimoin, Shank, Scheff)

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, Utiger)

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 quarter for special work in the Hematology Laboratory. Time is divided between study of patients with hematologic dyscrasias and training in special diagnostic procedures.

(Drs. Brown, Chaplin, Kornfeld, Majerus, Minnich, Vavra, Reinhard, C. Moore)

57. Cardiology. An abbreviated course in cardiac auscultation, electrocardiography and therapeutics will be offered for the first six week period of a quarter (excepting summer quarter), daily from 4:30 to 6:00 p.m. for not less than ten students.

(Cardiovascular 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 will be offered for senior students each three months of the academic year beginning in June, 1966. Students will participate daily in the activities of the electrocardiographic, 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)

58. (c) Rotating Student Internship. St. Luke's Hospital. One senior student, six weeks. Students will serve as interns on medical, surgical, or obstetrical service. For medical service, apply to Dr. Robert 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. Pierce and Staff)

60. Renal Disease. Two students each quarter. Time is divided between observation of patients with renal disease and body fluid abnormalities and instruction in special diagnostic and investigative techniques.  
(Dr. N. Bricker and Staff)

61. Gastroenterology. Gastrointestinal diseases are intensively taught through use of the patients currently in the wards, clinics, and consultation service. Students perform or assist in consultations, examinations, procedures, and analyses. Participation in conferences and rounds, review of appropriate histopathology, and training in use of diagnostic techniques are expected. Two students.  
(Dr. Peterson and Staff)

62. Allergy and Immunology. One or two students each six weeks.  
(Dr. C. Parker)

63. 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 include the following:

Arthritis and Diseases of Connective Tissue—Dr. Osterland
Allergy and Immunology—Dr. C. Parker
Cardiovascular Disease—Drs. J. Smith, B. Parker, Danforth, Aker, Hellam, Massie, Oliver, T. Walsh
Dermatology—Drs. Gass, Kobayashi
Diseases of Muscle—Dr. Perkoff
Enzymology—Drs. Sherry, A. Fletcher, N. Fletcher
Gastroenterology—Drs. M. Peterson, Aach, McGuigan
Genetics—Dr. Sly
Hematology—Drs. Brown, Bachmann, Chaplin, M. Gaston, Loeb, M. Kaplan, Kornfeld, Majerus, Minnich, C. Moore, Peden, Reinhard, Vavra
Hypertension—Dr. H. M. Perry, Jr.
Infectious Diseases—Drs. C. Harford, M. K. King, Cate
Malignant Disease—Drs. Loeb, Reinhard, L. Garfinkel
Metabolic Disease—Drs. Daughaday, Eisenstein, Kipnis, Perkoff, Utiger, Green, Wochner, Avioli
Nutrition—Drs. Shank, G. Morrison
Peripheral Vascular Disease—Dr. S. Wessler and Staff
Psychosomatic Disease—Dr. Guze
Pulmonary Disease—Dr. J. Pierce
Renal Disease—Drs. N. Bricker, Jamison, Klahr, Lubowitz, Purkerson, Slatopolsky, Schultz

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

73
Dr. Herman N. Eisen, Professor of Microbiology, at work in the department's research laboratories.

DEPARTMENT OF MICROBIOLOGY

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

Associate Professor
Milton Schlesinger, B.S., Yale University, 1951; M.S., University of Rochester, 1953; Ph.D., University of Michigan, 1959.

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

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 chemothrapeutic agents will also be examined. 180 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.

**Professors**
Philip R. Dodge, M.D., University of Rochester, 1948. (See Department of Pediatrics)
Sven G. Eliasson, Ph.D., University of Lund, 1942; M.D., 1954.

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

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

**Assistant Professors (Clinical)**
Lawrence A. Coben, B.S., Western Reserve University, 1946; M.D., 1951; 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)

**First Year**

10. **Integrative Neurology** (given as part of the Neuroanatomy and Neurophysiology sequence). 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 lesions 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. Neurological Examination in Clinical Diagnosis (part of Physical Diagnosis course). Lectures, demonstrations, and practice examinations of neurological patients under supervision. 12 hours, first semester.  

(Drs. Landau and Eliasson in conjunction with Staff)

21. Pathophysiology of Nervous System Disorders (part of course in Pathophysiology. A collaborative sequence with other clinical and basic science departments concerned with diseases of the nervous system). Lectures and seminar-symposia. 54 hours, first semester.  

(Drs. Eliasson, Hardin, Brooks, and Staff)

22. Clinical Neurology. Eighteen lectures and clinical demonstrations concerning major problems in neurological medicine. 18 hours, second semester.  

(Drs. Eliasson, Hardin, Brooks, and 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)
Dr. Willard M. Allen, Professor of Obstetrics and Gynecology, and a member of the staff on daily rounds.

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 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.

Professor
Arpad I. Csapo, M.D., University of Szeged (Hungary), 1941.

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 Gilson Wiest (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, 1939; M.D., University of Rochester, 1943.
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, 1952; M.D., 1955.
Seth E. Wassner, 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
Samad Montazee, M.D., Shiraz Medical School (Iran), 1961.
Helmut F. G. Schellhas (USPHS Senior Clinical Trainee), M.D., Albert-Ludwig University (Germany), 1959.

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., Kirkville College of Osteopathy and Surgery, 1940; M.D., Washington University, 1943.
(On leave of absence)
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. Kraner, 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'Neill, B.S., St. Louis University, 1926; 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.
(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), 1912.

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.
Godofredo M. Herzog, B.S., Louisiana State University, 1953; M.D., Washington University, 1957.
Gerald Newport, A.B., Washington University, 1948; M.D., 1953.
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. 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.
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 Professors
Morton Smith, B.S., University of Maryland, 1956; M.D., 1960.

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)
Jack Kaves, B.A., Yale University, 1953; M.D., Washington University, 1957.
Benjamin Milder, M.D., Washington University, 1939.
Edward Okun, M.D., University of Vermont, 1956.
Harry David Rosenbaum, M.D., Washington University, 1934.

Instructors
George H. Bresnick (National Institute of Neurological Diseases and Blindness Special Fellow), B.A., Harvard University, 1959; M.D., New York University, 1963.
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. Podos, A.B., Princeton University, 1956; M.D., Harvard University, 1963. (On leave of absence)

Instructors (Clinical)
Daniel Bisno, B.A., University of Wisconsin, 1927; M.D., Johns Hopkins University, 1931.
Isaac Boniuk, B.S., Dalhousie University, 1958; M.D., 1962. (On leave of absence)
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, 1934.
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.
Jack Hartstein, B.S., University of Missouri, 1953; M.D., University of Cincinnati, 1955.
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.
Ierard Silver, B.S., University of Louisville, 1952; M.D., 1956.
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
Walter J. Grodzki, D.D.S., St. Louis University, 1944.

Assistants
Lisa M. Cibis, M.D., University of Heidelberg, 1939; Certified Orthoptist, Washington University, 1956.

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, Kolker, Smith, and Resident Staff)

THIRD YEAR
30. Ophthalmology. Six didactic lectures are given in the third trimester to the entire class.

(Drs. Moses, Kolker, Smith, Cotlier, Newman, 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, Smith, Cotlier, and Resident Staff)
Dr. Joseph H. Ogura, Professor of Otolaryngology, at his equipment in the naso-pulmonary laboratory.

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 Professors**


Ruediger Thalmann (Audiology), M.D., University of Vienna, 1954.

**Associate Professor (Clinical)**


**Assistant Professors**

Hugh Biller, M.D., Marquette University, 1960.

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.

William F. Marovitz (Anatomy), B.A., University of California, 1962; Ph.D., 1966. (See Department of Anatomy)

Lindsay Pratt, B.S., Muhlenberg College, 1949; M.D., Jefferson Medical College, 1953; M.S., Temple University, 1960.

**Assistant Professors (Clinical)**

William T. K. Bryan, A.B., Washington University, 1929; M.D., 1933.

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. Klaff, 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 Professors Emeriti (Clinical)**

Alfred J. Cone, B.S., State University of Iowa, 1921; M.D., 1923; M.S., 1927.

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.

**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. Clinical pathologic correlative lectures in otolaryngology will be given to the entire class.

(Drs. Ogura, Walsh, Stroud, Pratt, Biller)

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; Lutheran Hospital, Dr. L. Yuan; St. Lukes Hospital, F. Kraus.
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 Virology ............................................. Dr. McGavran
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
Neoplasia ................................................................. Dr. J. Meyer
Pathology of the Placenta ............................................... Dr. V. Bleisch
Pulmonary Pathology ..................................................... Dr. C. Kuhn
Cardiac Pathology ........................................................ Dr. R. Ahlvin
Obstetric and Gynecologic Pathology .............................. Dr. R. Kempson
Arteriosclerosis .......................................................... Dr. W. Stehbens
Tissue Culture .......................................................... Dr. O. Pettengill
Developmental Biology .................................................. Dr. C. Smith
Cytology ................................................................. Dr. N. Konikov
Hypertension ........................................................... Dr. P. Hartroft
Protein Chemistry ........................................................ Dr. L. Jarett

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.

Professor
Lauren V. Ackerman (Pathology and Surgical Pathology), A.B., Hamilton College, 1927; M.D., University of Rochester, 1932.

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.
Joe W. Grisham (Markle Scholar), A.B., Vanderbilt University, 1953; M.D., 1957.
Phyllis M. Hartroft, B.S., University of Michigan, 1949; M.A., University of Toronto, 1951, Ph.D., 1954.
John Kissane, A.B., University of Rochester, 1948; M.D., Washington University, 1952.

Ruth Silberberg, M.D., University of Breslan, 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 Innsbruck (Austria), 1938; L.R.C.P. & S., University of Glasgow (Scotland), 1944; M.D., Marquette University, 1947.

Ronald F. Dorfman, M.B.B.Ch., University of Witwatersrand Medical School, 1948.

Leonard Jarett (Senior Trainee NIGMS), B.A., Rice University, 1958; M.D., Washington University, 1962.

Richard L. Kempson, B.S., Tulane University, 1952; M.D., 1955.

Charles Kuhn, A.B., Harvard University, 1955; M.D., Washington University, 1959.

Virgil Loeb, Jr., M.D., Washington University, 1944. (See Department of Medicine)


Oliva S. Pettengill, A.B., Temple University, 1945; M.S., Brown University, 1948; Ph.D., Boston University, 1960.

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.

William C. Black (USPHS Senior Clinical Trainee), M.D., University of Colorado, 1957.

Chai Hong Chung, M.D., Kyungbuk University (Korea), 1949.

Luis Q. Del Rosario, M.D., University of Santo Tomas, 1954.

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.

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 Sclafford, 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.

Ian Donald Stuard, A.B., Princeton University, 1956; M.D., University of Rochester, 1961.

Louis S. K. Yuan, M.D., Aurora University (China), 1938.
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, R. Silberberg, Kissane, Sorenson, Grisham, J. Williamson, and Staff)

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, 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, 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


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.
Assistant Professor Alexis F. Hartmann, jr., Associate Professor M. Remsen Behrer, and Professor David Goldring demonstrate the normal and abnormal development of the heart and great vessels during a conference in the Department of Pediatrics

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 Head
of the Department

Philip R. Dodge, M.D., University of Rochester, 1948. (See Department of Neurology)

Professor

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.

John C. Herweg, B.S., Drury College, 1943; M.D., Washington University, 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. (See Department of Psychiatry)

Dorothy Jeannette Jones, A.B., Oberlin College, 1930; M.D., Washington University, 1934.

Frederick August Jacobs, B.S., Washington University, 1927; M.D., 1928.

Joseph C. Jaudon, A.B., Washington University, 1926; M.D., 1933.

Lawrence J. 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.


Argyrios A. Tsifutis (also Research Fellow), B.S., Aristotleion University of Thessaloniki (Greece), 1954; M.D., 1954.

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, 1940; 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 Gellub, 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. Hammes, 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.

Steven I. Plax, A.B., University of Missouri, 1957; M.D., 1961.

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 Voegel, 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.

Gerald Wool, A.B., Princeton University, 1958; M.D., Washington University, 1962. (On leave of absence)

H. Benjamin Zwirn, M.D., University of Basel (Switzerland), 1954.

Instructors Emeriti (Clinical)

Maurice J. Lonsway, B.S., Valparaiso University, 1910; M.D., St. Louis University, 1914.

Edwin H. Rohlfsing, M.D., Washington University, 1919.
Assistants (Clinical)

Robert D. Cox, B.S., University of Notre Dame, 1945; M.D., Johns Hopkins University, 1949.

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.

Frederick Sargent, A.B., Yale University, 1939; M.D., Cornell University, 1943.

Seymour M. Schlansky, M.D., Chicago Medical School, 1950.

Mary A. T. Tillman, M.D., Howard University, 1960.

George T. Wilkins, Jr., B.S., University of Illinois, 1956; M.D., 1957.

Research Assistants

Charles Crawford, Jr., B.S., Washington University, 1956.


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 ten lectures designed to acquaint him with the nature of human growth and development, and the relationship of age to reaction to injury and disease.

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.
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.
David M. Geller, B.A., Amherst College, 1952; Ph.D., Harvard University, 1957.

Stephen C. Kinsky, A.B., University of Chicago, 1951; Ph.D., Johns Hopkins University, 1957.
David B. McDougal, Jr., A.B., Princeton University, 1945; M.D., University of Chicago, 1947.
Janet V. Passonneau, B.A., University of Minnesota, 1945; M.A., Radcliffe College, 1946; Ph.D., Harvard University, 1949.

Assistant Professors
Franz M. Matschinsky, M.B., University of Freiburg, 1955; M.D., University of Munich, 1959.
Philip Needleman, B.S., Philadelphia College of Pharmacy and Science, 1960; M.S., 1962; Ph.D., University of Maryland Medical School, 1964.

Lecturer
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. 110 hours.
(b) Laboratory course. 70 hours. (Drs. Lowry, Hunter, Burch, Burton, Kinsky, Needleman, McDougal, 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.
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 EDWARD MALLINCKRODT DEPARTMENT OF PHARMACOLOGY

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
Doctors Gordon Schoepfle and William Sleator 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 course for medical students (Physiology 502 and 503) is given in the second semester of the first year. In addition to a comprehensive series of lectures, about 18 half-to-full-day laboratory experiments are scheduled in three blocks throughout the semester. The principal research interests of the Department at present are the peripheral and central nervous systems, muscle, heart, microcirculation, respiration, kidney, exchanges through cell membranes, protein structure, and the application of modern computer technology to problems in physiology and biophysics.

Professor and Acting Head of the Department

William W. Sleator (Physiology and Biophysics), A.B., University of Michigan, 1938; M.S. 1939; Ph.D., 1946.

Professors

Gordon Marcus Schoepfle (Physiology and Biophysics), A.B., DePauw University, 1937; A.M., Princeton University, 1939; Ph.D., 1941.
Jerome Cox, Jr. (Biomedical Engineering), S.B., Massachusetts Institute of Technology, 1947; S.M., 1949; Sc.D., 1954. (Biomedical Computer Laboratory)

Albert Roos (Physiology), M.D., University of Groningen, 1940. (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 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 and Biophysics), Ph.B., University of Chicago, 1946; S.B., 1948; S.M., 1949; Ph.D., 1952.

Charles E. Molnar (Physiology and Biophysics), B.S.E.E., Rutgers University, 1956; M.S.E.E., 1957; Sc.D., Massachusetts Institute of Technology, 1966. (Computer Systems Laboratory)

**Assistant Professors**

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


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

Russell R. Pfeiffer (Engineering Biophysics), B.S., Purdue University, 1949; S.M., Massachusetts Institute of Technology, 1960; Ph.D., 1963. (Electrical Engineering)

**Research Assistant Professor**

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

**Instructor**

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

**Research Assistant**

Taisija de Gubarett (Physiology and Biophysics), 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.

The Department offers to qualified students the opportunity to carry on work leading to the Ph.D. degree in Physiology and Biophysics. Further information about this program may be obtained from the Bulletin of the Graduate School of Arts and Sciences.
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 first degree medical curriculum. Throughout the four years the Student Health Service, which is a part of the Department organization, attempts to teach by precept as students appear for health counsel or treatment of illness. During the first year, a course in statistical methods in medicine is given, which is introductory to the later use of statistical procedures in courses of other departments. The principle 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
Herbert R. Donke (Public Health), S.B., University of Chicago, 1939; M.D., 1942; M.P.H., Harvard University, 1948; D.Ph.D., 1959. (See Department of Medicine)

C. Howe Eller (Public Health), A.B., Stanford University, 1927; M.D., University of Colorado, 1930; Ph.D., Johns Hopkins University, 1934.

M. Kenton King, B.A., University of Oklahoma, 1947; M.D., Vanderbilt University, 1951. (See Department of Medicine)

Professor and Director of the Division of Biostatistics
Reimut Wette (Biostatistics), M.S., University of Heidelberg, 1952; D.Sc., 1955.

Associate Professors
Albert Eisenstein, A.B., University of Missouri, 1941; M.D., Washington University, 1944. (See Department of Medicine) (Cochran Veterans Administration Hospital)

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)

Assistant Professors
Julian B. Fleischman (American Heart Association Established Investigator), B.S., Yale University, 1955; Ph.D., Harvard University, 1960. (See Department of Microbiology)

John Hollosz, M.D., Washington University, 1957. (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) (On leave of absence)

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
Mildred Hendricks (Social Work) B.S., Converse College, 1948; M.S.W., Washington University, 1962.

Barbara Hixon (Biostatistics), B.S., University of Illinois, 1941.

Janelyn M. Mueller (Occupational Therapy and Rehabilitation), B.S., Washington University, 1959.

Anne Brown Short (Physical Therapy and Rehabilitation), B.S., Washington University, 1951.
First Year

10. Biomedical Statistics. This course is an introduction to principles and methods of biostatistics. It emphasizes the concepts of statistical methodology as being essential to proper application and interpretation of statistical methods. Elementary statistical techniques illustrating the use of statistical principles in experimentation and clinical research are discussed. Second semester, 3 hours a week, 54 hours.

(Dr. Wette and Staff)

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. Shank 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, Psychiatry, Neurology, Pediatrics, 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)


(Drs. Osterland and Fleischman)
Instruction in psychiatry is given in all four years of the medical course. In the first 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
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 Itlleson Professor of Child Psychiatry

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

Associate Professors
Blake W. Moore (Biochemistry), B.S., University of Akron, 1948; Ph.D., Northwestern University, 1952.
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.
Ferris N. Pitts, Jr., A.B., Washington University, 1952; M.D., 1955. (See Department of Pediatrics)
Kathleen Smith, B.S., University of Arkansas, 1944; M.D., Washington University, 1949. (Malcolm Bliss Hospital)
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 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., 1961.
Marijan Herjanic, M.D., Zagreb University, 1956.
Richard W. Hudgens, M.D., Washington University, 1956.
Vincente B. Tuason, M.D., University of Santo Tomas, 1955. (Bliss Hospital)
Robert A. Woodruff, Jr., A.B., Harvard University, 1956; M.D., 1960.
Assistant Professor Emeritus and Lecturer
Lucile Healy (Social Work), A.B., College of St. Catherine, 1922; M.A., University of Minnesota, 1927; M.S.W., Washington University, 1949.

Research Assistant Professors
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 Holsatte, M.D., University of Vienna, 1926.
Alex H. Kaplan, B.S., College of City of New York, 1932; M.D., St. Louis University, 1936.
Wanda M. Lamb, B.S., University of Missouri, 1946; M.D., Washington University, 1948.
Roy M. Mendelson (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.

Instructors
Ramnik G. Barchha, M.D. (M.B., B.S.), University of Bombay, 1962. (Bliss Hospital)
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, 1942; M.A., 1942; Ph.D., University of Wisconsin, 1959.
Alan G. Craig, M.D., (M.B., Ch.B.), Aberdeen University, 1951.
Alexandro M. Datuin, M.D., University of Santo Tomas, 1956. (Bliss Hospital)  
Kimon Efstathianos, M.D., National University of Athens, 1951. (Bliss Hospital)  
Mary Grohmann, M.S., St. Louis University, 1959; Ph.D., 1965.  
Julian C. Hall (Social Work), B.S., University of Louisville, 1949; M.S., 1951. (Bliss Hospital)  
Carroll W. Harpenau (Medical Psychology), B.A., Bellarmine College, 1960; Ph.D., St. Louis University, 1967. (Bliss Hospital)  
John B. Lewis (Medical Psychology in Child Psychiatry), B.S., Northwestern University, 1949; M.S.W., Washington University, 1952.  
Abelardo Pena-Ramos, M.S., Buenos Aires University, 1954. (Bliss Hospital)  
Elizabeth C. Penick (Medical Psychology), B.A., Sophie Newcomb College, 1957; M.S., Tulane University, 1960.  
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)  

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. (Also Department of Psychology)  

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. Cowdery, Jr., A.B., Princeton University, 1942; M.D., Washington University, 1945.  
Mary E. Cox, A.B., Washington University, 1941; M.D., 1944.  
Wilbur H. Gearhart, B.S., Butler University, 1949; M.D., Hahnemann Medical College, 1950.  
Janet Golden (Social Work), A.B., Washington University, 1924.  
Arthur S. Greditzer, M.D., Washington University, 1948. (On leave of absence)  
Anna E. Hartnett (Child Psychiatry), B.Sc., Loyola University, 1966; M.D., Ottawa University, 1960.  
Robert S. Hicks, A.B., Hendrix College, 1951; M.D., University of Arkansas, 1958.  
Lilli Holstatter, 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. McManus, 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.  

111
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. Five hours of the program are devoted to social factors in disease and personality development. 36 hours.

(Drs. McClure, Murphy, and Associates)

SECOND YEAR

20. Psychiatry.

The Pathology of Behavior. 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 his-
tery of the major psychiatric disorders; (d) critical evaluation of conceptual and methodologic problems in psychiatry and psychology. Lectures, demonstration interviews, discussions. 36 hours.

(Dr. Murphy and Associates)

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, Woodruff, 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.

(Drs. Hudgens, Guze, and Associates)

(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.

(Drs. Stewart, Painter)

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. Fingert, Kaplan, Sommer)
Dr. Juan Taveras, Professor of Radiology, and members of his staff discuss the techniques of carotid angiography.

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
  Musculoskeletal and Peripheral Angiography ............ Dr. Tom W. Staple
  Neuroradiology .............................................. Dr. David O. Davis

Pediatric Radiology ........................................ Dr. William McAlister

Pulmonary Roentgenology ................................. Dr. Daniel Torrance

Medical Ultrasound .......................................... Dr. Ray A. Brinker

Therapeutic Radiology .................................... Dr. William E. Powers

Radiation Biology ........................................... Dr. Leonard J. Tolmach

Radiation Physics ............................................ Dr. Michel Ter-Pogossian

Nuclear Medicine ............................................ Dr. James Potchen
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 the nuclear medicine divisions have 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. A well-staffed radiation biology laboratory is located on the sixth floor.

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)
Wendell G. Scott, A.B., University of Colorado, 1926; M.D., Washington University, 1932; Sc.D. (Hon.), University of Colorado, 1954.

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.

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)

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

P. Ruben Koehler, M.D., University of Berne ( Switzerland), 1956.

William H. McAlister, B.S., Wayne State University, 1950; M.D., 1954.

E. James Potchen, B.S., Michigan State University, 1954; M.D., Wayne State University, 1958.

Daniel J. Terrance, 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.

David O. Davis, B.S., University of Illinois, 1954; M.D., St. Louis University, 1958.

Carlos Perez, B.S., University of Antioquia (Colombia), 1952; M.D., 1960.

Calvin L. Rumbaugh (NINDS Special Fellow in Neuroradiology), B.S., Northwestern University, 1949; M.D., 1952.

Tom W. Staple, B.S., University of Illinois, 1953; M.D., 1955.


Visiting Assistant Professor

John S. Clifton (Radiation Physics), B.S., University of Southampton (England), 1955; M.S., University of London, 1961. (Also Division of Applied Mathematics) (July 1 to September 30, 1967)

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.

Douglas R. Lilly, A.B., Princeton University, 1952; M.D., Washington University, 1956. (See Department of Internal Medicine)

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.

Research Assistant Professors

Ellen G. Archer (Nuclear Medicine); B.S., Chatham College, 1950; M.S., University of Arkansas, 1956; Ph.D., 1963.


Instructors

John O. Eichling (Radiation Physics), B.S., Northeastern Oklahoma State College, 1958; M.S., Oklahoma State University, 1959.

Joseph M. Gilson (NINDB Special Fellow in Neuroradiology), B.S., St. Louis University, 1958; M.D., University of Minneapolis, 1962. (To December 31, 1967)


Bassett Kilgore (NINDB Special Fellow in Neuroradiology), B.S., Southern Methodist University, 1951; M.D., Southwestern Medical School, 1953. (To September 30, 1967)

Myo Kyaw, B.A., Baylor University, 1959; M.D., St. Louis University, 1963.


Emilio Torres-Reyes, B.S., University of Puerto Rico, 1956; M.D., 1960.


Research Instructor

Instructor (Clinical)
Noah Susman, A.B., Washington University, 1948; M.D., 1952. (Jewish Hospital)

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) Drs. Torrance, Wilson
b. Abdominal Roentgenology Dr. Koehler
c. Neuroradiology Dr. Davis
d. Pediatric Roentgenology Dr. McAlister
e. Therapeutic Radiology Dr. Powers
f. Nuclear Medicine Dr. Potchen
g. 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 IRENE WALTER JOHNSON INSTITUTE OF REHABILITATION

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)

**Associate Medical Director**
John O. Holloszy, M.D., Washington University, 1957. (See Departments of Medicine and Preventive Medicine and Public Health)

**Associate Director for Education and Administration**
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.

### Bixby Professor and Head of the Department

### 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.
- Fred C. Reynolds (Orthopedic Surgery), A.B., Washington University, 1931; M.D., 1934.
- Henry Gerard Schwartz (Neurological Surgery), A.B., Princeton University, 1928; M.D., Johns Hopkins University, 1932.

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

### Professors (Clinical)
- Eugene Myron Bricker, 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.
- Minot P. Fryer, A.B., Brown University, 1936; M.D., Johns Hopkins University, 1940.
- Leonard Thompson Furlow (Neurological Surgery), B.S., Emory University, 1923; 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.

### Lecturer
- John S. Spratt, Jr., M.D., Southwestern Medical School of the University of Texas, 1952. (Ellis Fischel State Cancer Hospital)
Associate Professors

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)

Warren G. Stump (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.


Falls B. Hershel, B.S., University of Illinois, 1939; M.D., Harvard University, 1943.

Frank McDowell, A.B., Drury College, 1932; M.D., Washington University, 1936. (On leave of absence)


James M. Stokes, M.D., Washington University, 1948.


Associate Professors Emeriti (Clinical)

Clarence Harrison Crego, Jr. (Orthopedic Surgery), B.S., Union University, 1921; M.D., University of Michigan, 1923.

Rogers Deakin (G.U. Surgery), M.D., Washington University, 1922.

J. G. Prokstein, M.D., Loyola University, 1917.

Assistant Professors

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.


Andrew D. Spencer, A.B., Indiana University, 1951; M.D., 1954. (Homer G. Phillips Hospital)

Lewis J. Thomas (Anesthesiology), S.B., 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.)

Assistant Professors (Clinical)

William T. Bowles (Urology), M.D., Stanford University, 1955.


Cyril J. Costello, B.S., University of Texas, 1935; M.D., 1939.

Heinz Haffner, B.S., University of Arizona, 1951; 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, 1936; 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)

Virginia M. Badger (Orthopedic Surgery), B.A., Occidental College, 1950; M.S., University of Southern California, 1957; M.D., Woman's Medical College of Pennsylvania, 1961.

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

Alberto de Jesus (Anesthesiology), B.S., Universidade 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, 1959. (Ellis Fischel State Cancer Hospital)


Marcy Allen Goldstein, M.D., Washington University, 1951. (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 R. Hollosy (Anesthesiology), B.S., LeMoyne College, 1952; M.D., Meharry Medical College, 1956 (Cochran Veterans Administration Hospital)

James R. Hurd, A.B., Princeton University, 1957; M.D., Harvard University, 1961. (City Hospital)

M. Richard Katz (Neurological Surgery), 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)


Paul E. Stohr (Neurological Surgery), M.D., Washington University, 1959.

Irvin C. Susman (Anesthesiology), M.D., University of Illinois, 1949. (Jewish Hospital)
Research Instructor
Paul V. Belkin (Experimental Surgery), D.V.M., Vienna Veterinary College, 1944.

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.
Virgil 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. Holsher (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.
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 Mishkin (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 Pfeifferberger, 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. (On leave of absence)
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.
Newton B. White (Orthopedic Surgery), M.D., University of Cincinnati, 1957.
James M. Whittico, M.D., Meharry Medical College, 1940.

**Assistants**


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

**Assistants (Clinical)**

John P. Arnot (Orthopedic Surgery), B.A., Rice University, 1954; M.D., Yale University, 1958.

Clarence M. Benage, 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. Criccione, B.S., Youngstown University, 1943; M.D., St. Louis University, 1951.


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

Frederick W. Klinge, 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.

George H. Zografakis, M.S., Rutgers University, 1955; M.D., State University of New York, Upstate Medical College, 1959.

**SECOND YEAR**

*Introduction to Surgery.* Panel discussions present certain fundamental principles of physiology, biochemistry, and pathology as applied to surgery. Recitations and demonstrations are included. Two hours weekly for eighteen weeks during the second and third trimesters of the second year.
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, Urology and Radiology Staff. Pyelogram conference, five hours weekly. Drs. Cordonnier, Bowles and Koehler. Didactic study of special urologic subjects, one hour weekly. Dr. Cordonnier and Staff. Ten hours weekly are spent in the out-patient 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**

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 out-patient work, particularly related to malignant diseases.

53. *Speciality 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)
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 two LINC computers at BCL available to students. Three Programmed Consoles, a smaller computer designed at BCL, are also available and are 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.

The Biomedical Computer Laboratory is affiliated with the Computer Systems Laboratory located in nearby quarters at the School of Medicine. The mission of the Computer Systems Laboratory is the design and development of advanced computer systems with a current focus on the development of a compatible set of “macromodules” from which arbitrary large, complex, or specialized computer systems can be assembled. These systems will be applied to several challenging problems in physiology and medicine.
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 Esben Kirk, M.D., University of Copenhagen, 1929. (See Department of Medicine)

Research Instructor
Teofil Kheim, M.D., University of Budapest, 1934.

Research Assistant
Saichi Hosoda, M.D., University of Tokyo, 1956.

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.

NEUROBIOLOGY

Committee
Professor Davis, Chairman; Associate Professor Cohen, Committee Secretary; Professors Covell, Cox, Dodge, Eldredge, Goldring, Hamburger, Lacy, Landau, Levi-Montalcini, Lowry, O'Leary, Robins, Sandel, Schoepfle, Smith, Stern; Associate Professors Enoch, McDoegal, Molnar, Pfeiffer; Assistant Professor Pitts

The graduate program in Neurobiology is an inter-campus program of study leading to the degrees of Master of Science and of Doctor of Philosophy in either the title Neurobiology or in nonclinical titles of one of the University departments, committees, or University-affiliated institutions participating in the program. Medical students may apply for admission to this program and successful applicants may, through individual arrangements, pursue additional studies and research leading to a Doctor of Philosophy degree through the Neurobiology program in addition to continuing their work towards their medical degree.

Departments and groups participating in the program are Anatomy, Biology, Central Institute for the Deaf, Electrical Engineering, Neurology, Neurosurgery, Ophthalmology, Otolaryngology, Pathology, Pharmacology, Physiology, Psychiatry, Psychology, and the Washington University Computer Laboratories.
The program of study is adjusted to the particular aims of individual students, and includes such fundamental problems of organization and function of the nervous system as mechanisms of sensing the external and internal environments; the conversion of adequate stimuli into signals and the transmission of coded information; information storage and retrieval; the evaluation of information and initiation of responses; gross anatomy and microstructure; development, organization, and regeneration; biochemical features of structure, action, and control in neural tissues and systems.

Interested students should consult the Executive Secretary, Committee on Neurobiology, Washington University School of Medicine, 4550 Scott Avenue, St. Louis, Missouri 63110.

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. Itlleson 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. (Also Department of Psychology)

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 Casehier (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 Psychology), B.A., University of Florida, 1950; Ph.D., 1964. (Also Department of Education)

Research Instructors
Boaz Kahana (Medical Psychology), B.A., Yeshiva University, 1955; M.S., 1957; Ph.D., University of Chicago, 1966.
Jon Plapp (Medical Psychology), B.A., University of Melbourne, 1959; Ph.D., Washington University, 1966.

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

Instructors (Clinical)
Anna E. Hartnett (Child Psychiatry), B.S., Loyola University, 1956; M.D., Ottawa University, 1960.
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. (See Department of Pediatrics)

Assistants
Marlys K. Allen (Speech Correction), B.S., Iowa State University, 1960; Ed.M., Boston University, 1964.
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.
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. Departments 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**

*Assistant Professor and Director*


*Professor*

Frank R. Bradley, M.D., Washington University, 1928; L.L.D., Central College, 1943.

*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 Laundries).

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.


Doris Cook (Hospital Dietetics), B.S., University of Illinois, 1934.
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.
Applicants must hold a bachelor’s degree or be graduates of an approved school of medicine.

<table>
<thead>
<tr>
<th>Fee Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition (academic year)</td>
<td>$1,800.00</td>
</tr>
<tr>
<td>Tuition (clinical year)</td>
<td>300.00</td>
</tr>
<tr>
<td>Student Health Fee (academic year)</td>
<td>90.00</td>
</tr>
<tr>
<td>Late Registration Fee</td>
<td>5.00</td>
</tr>
</tbody>
</table>

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.

*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.

*Lecturer*

Libbie Crawford, Ctf., University of Oklahoma, 1936.

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 ................................................................. $900.00
Tuition (clinical year), per year ................................................................. 600.00
Student Health Fee (three semesters), per semester ........................................... 45.00
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.A., 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 ................................................................. $900.00
Tuition (final semester) ................................................................................ 600.00
Student Health Fee, per semester ........................................................................ 45.00
Late Registration Fee ................................................................................ 5.00

139
DIVISION OF AUXILIARY MEDICAL SERVICES

X-RAY TECHNOLOGY

A two-year course for X-ray technologists is offered by the Mallinckrodt Institute of Radiology. The course will cover, by lectures and group discussions, the following subjects: anatomy and physiology; radiographic technique; radiation physics; darkroom processing procedures; nursing procedures; administration; radiation therapy; professional ethics; medical terminology; medical isotopes; survey of medical and surgical diseases and radiographic positioning.

During the first six months a student is on probation and, upon satisfactory completion of his work, will be paid a monthly stipend of $50.00. This stipend will increase to $75.00 for the third six months and $100.00 for the last six months. During the twenty-four months, students will be assigned tours of duty in the various sections of the diagnostic and therapeutic areas for their practical experience. A certificate is given after successful completion of the training program.

Candidates for admission must be certified graduates of an accredited secondary school and should rank in the upper third of their class. 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 a college entrance examination for admission to an accredited college or university. A student health fee of $90.00 is compulsory the first year, and the cost of books is approximately $65.00 for the two years. There is no tuition charge.

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 production and cost 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.
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 Executive Council of the Alumni Association of the Washington University School of Medicine.
The Alumni Association of the Washington University School of Medicine was organized with the following object and purpose: to promote a spirit of class fellowship among its members; to further the interests and standing of the Washington University School of Medicine; and to stimulate an interest in the advancement of medical and collateral sciences.

The 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 prepares and distributes a schedule of conferences and a list by departments of the meetings in the Medical Group which are open to physician attendance. A Student Loan Fund is maintained to assist medical students with emergency loans. Upon approval by the Alumni Committee on Loans and Scholarships, students past the freshman level may borrow up to $1,000 a year, or a total of $3,000 during their medical school career. Each fall the Association awards a tuition scholarship of $200 to a medical student for excellence in work during the preceding year. The Board of Trustees of the University includes a representative from the Medical Alumni.

In 1966-67 the officers of the Association were: C. Alan McAfee, '42, president; C. Read Boles, '43 (dec.), president-elect; Guy N. Magness, '28, vice president; and Richard W. Hudgens, '56, secretary-treasurer.
PRIZES AWARDED 1965-1966

Gill Prize in Anatomy
Lawrence John Dunn, A.B.

Chouké Prize in Anatomy
Lawrence John Dunn, A.B.

Biochemistry Prizes
David Roy Krauss
Barry Alan Siegel

St. Louis Pediatrics Society Senior Prize
Herbert Traub Abelson, A.B.

Sidney I. Schwab Book Prizes
Max Alden Baker, B.S.
William Stephen Corrie, B.A.

Borden Undergraduate Research Award
Jeffrey Morton Gilbert, B.A.

Alpha Omega Alpha Book Prize
William Gerald Wood, B.S.

Prizes of the Medical Fund Society in Medicine
James Mahoney Hammond, B.A.
Charles Lynn Robertson, B.S.

Prize of the Medical Fund Society in Surgery
Louis Powell Dehner, A.B.

McCordock Book Prizes
Hunter Heath, III, A.B.
David Lee Stabenow, B.S.

Roche Award
David Lee Stabenow, B.S.

Medical Alumni Fund Scholarship
Michael Bernard Jacobs, A.B.

Missouri State Medical Association Annual Award
William Gerald Wood, B.S.

Bronjenbrenner Memorial Awards
Charles Kemper Harmon, A.B.
Thomas John Prendergast, Jr., A.B.

The Richard S. Brookings Medical School Prizes
Robert Holt Allen, A.B.
Jere Davies Cravens, B.S.
James Otis Lindsey, II, A.B.
Michael Joseph Specter
PRIZES AWARDED 1965-66

The Joseph J. Gilt and Charlotte E. Gilt Prizes
William Stephen Corrie, B.A.
Constance Kate Ramsey, A.B.

The Robert Carter Medical School Prizes
William Berman, Jr., A.B.
Robert John Clark, B.S.
Thomas John Prendergast, Jr., A.B.
Gary Dean Shackleford, A.B.

The National Foundation Merit Award
Terrance Allan Brown

The Upjohn Achievement Award
James Mahoney Hammond, B.A.

C. V. Mosby Company Book Awards
Philip Gerald George, A.B.
John Dundan Harley, B.A.
Neal Wilson Marcus, B.A.
Harvey Jay Matlof, A.B.
John Matt Ulvila, B.A.

Lange Medical Publications Book Awards
Donald Ray Kirks, B.A.
Paul Henry Lange, B.A.
Morris Wade Pulliam
Clifford Steven Schultz
Paul Stephen Simons, B.A.
Lynn Max Taussig, A.B.
John Lee Trotter, B.A.
W. B. Jerry Younger

SCHOLARSHIPS 1966-67

Jackson Johnson Regional Scholarships
Kenneth Jerome Arnold, A.B.
William Berman, Jr., A.B.
Hudson Bradley Binnington, Jr., A.B.
Jeffrey Michael Brick, B.S.
Robert J. Clark, B.S.
Jere Davies Cravens, B.A.
Aubrey Pat Chambers
Lawrence J. Dunn, A.B.
William A. Grunow, B.A.
Maria G. Ikossi

Stephen Kamenzetky
David Gordon Kaufman
Ira J. Kedner, A.B.
Robert B. McLean, B.A.
Wallace B. Mendelson, B.A.
Jeffrey Ross, A.B.
Robert Dennis Shay
Emily Louise Smith
David Lee Stabenow, B.S.
Thomas William Wicks, A.B.
Richard G. Wyatt, B.A.
Queeny Tower, one of the major units of Barnes Hospital.
## Register of Students

### Fourth-Year Class (1966-67)

<table>
<thead>
<tr>
<th>Name</th>
<th>College</th>
<th>University</th>
<th>Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen, George</td>
<td>B.A., Wesleyan Univ.</td>
<td>'63—Duke Hospital</td>
<td>Durham, North Carolina</td>
</tr>
<tr>
<td>Alvord, Douglas</td>
<td>Wayne, B.A., Rice Univ.</td>
<td>'63—Barnes Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Andersen, Robert</td>
<td>Stanley—St. John's Mercy</td>
<td>Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Anslinger, David</td>
<td>Lawrence, B.S., St. Louis</td>
<td>University</td>
<td>'63—St. Luke's Hospital</td>
</tr>
<tr>
<td>Asher, John</td>
<td>Errol, A.B., Western Reserve</td>
<td>Univ. '63—Bellevue Hospital</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Blend, David</td>
<td>Paul, A.B., Grinnell Coll.</td>
<td>'63—Jewish Hospital</td>
<td>St. Louis Missouri</td>
</tr>
<tr>
<td>Bilezik, Ronald</td>
<td>Charles, B.S., Univ. of Toledo</td>
<td>'63—Barnes Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Blair, Grace</td>
<td>Lucille, B.A., Univ. of</td>
<td>Minnesota</td>
<td>'63—Santa Clara County Hospital</td>
</tr>
<tr>
<td></td>
<td></td>
<td>California</td>
<td>San Jose, California</td>
</tr>
<tr>
<td>Blieweiss, Milton</td>
<td>Sanford, A.B., Washington</td>
<td>Univ. '64—King County Hospital</td>
<td>Seattle, Washington</td>
</tr>
<tr>
<td>Bloor, Bobby</td>
<td>A.M., Univ. of Texas</td>
<td>'63—Barnes Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Brock, David</td>
<td>Carl, A.B., Washington Univ.</td>
<td>'63—St. Louis Children's Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Brosdcky, Alan</td>
<td>Lawrence, B.S., Southern</td>
<td>Methodist Univ.</td>
<td>'63—Barnes Hospital</td>
</tr>
<tr>
<td>Broido, Peter</td>
<td>W., A.B., Columbia Univ.</td>
<td>'63—Barnes Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Buettner, John</td>
<td>Brigham, B.A., Dartmouth Col.</td>
<td>'63—St. Luke's Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Campbell, Allan</td>
<td>Clair, B.S., Univ. of Illinois</td>
<td>'65—Baylor University Affiliated Hospitals</td>
<td>Houston, Texas</td>
</tr>
<tr>
<td>Clark, Robert</td>
<td>John, B.S., Univ. of Illinois</td>
<td>'62—Bostom City Hospital</td>
<td>Boston, Massachusetts</td>
</tr>
<tr>
<td>Counts, Richard</td>
<td>Barton, A.B., Washington</td>
<td>Univ. '63—University of Washington Hospitals</td>
<td>Seattle, Washington</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Washington</td>
<td></td>
</tr>
<tr>
<td>Counts, Sandra</td>
<td>Jo Karm, B.S., Univ. of Texas</td>
<td>'63—Children's Orthopedic Hospital</td>
<td>Seattle, Washington</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crouch, John</td>
<td>Raymond—St. Luke's Hospital</td>
<td>St. Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>Douglas, John</td>
<td>Simonot, Jr., B.A., Univ. of</td>
<td>the South</td>
<td>'63—North Carolina Memorial Hospital</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapel Hill</td>
<td>North Carolina</td>
</tr>
<tr>
<td>Eikman, Edward</td>
<td>Allan, B.A., Florida State</td>
<td>Univ. '62—Barnes Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Feagler, John</td>
<td>Raber, A.B., Indiana Univ.</td>
<td>'63; M.S., '65—Barnes Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Frederiksen, Rand</td>
<td>Terrell—Indiana University</td>
<td>Hospitals</td>
<td>Indianapolis, Indiana</td>
</tr>
<tr>
<td>Goldstein, Allan</td>
<td>Joel, A.B., Univ. of Pennsylvania</td>
<td>'62—Long Island Jewish Hospital</td>
<td>New Hyde Park, New York</td>
</tr>
<tr>
<td>Hadley, Donald</td>
<td>Arthur, A.B., Greenville</td>
<td>Coll. '62—U.S. Naval Hospital</td>
<td>Philadelphia, Pennsylvania</td>
</tr>
<tr>
<td>Hered, John</td>
<td>B.A., DePauw Univ.</td>
<td>'63—King County Hospital</td>
<td>Seattle, Washington</td>
</tr>
<tr>
<td>Holle, Larry</td>
<td>Arthur, B.A., Valparaiso</td>
<td>Univ. '63—Strong Memorial Hospital</td>
<td>Rochester, New York</td>
</tr>
<tr>
<td>Horner, William</td>
<td>Benjamin, Jr., A.B., Knox</td>
<td>Coll. '63—St. Luke's Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Jacobs, Michael</td>
<td>Bernard, A.B., Washington</td>
<td>Univ. '65—Bronx Municipal Hospital</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Johler, Terry</td>
<td>Hartwig, B.A., Westminster</td>
<td>Coll. '63—St. Luke's Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Johnstone, Murray</td>
<td>Alan, B.A., Coll. of Puget Sound</td>
<td>'62—King County Hospital</td>
<td>Seattle, Washington</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Katz, Arnold</td>
<td>Elliott, A.B., Dartmouth</td>
<td>Coll. '63—St. John's Mercy Hospital</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Kemp, David</td>
<td>Garrett, B.S., Univ. of Toledo</td>
<td>'62—St. Joseph Mercy Hospital</td>
<td>Ann Arbor, Michigan</td>
</tr>
</tbody>
</table>

147
<table>
<thead>
<tr>
<th>Name</th>
<th>College/University</th>
<th>Hospital/Medical Center</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kodner, Ira Joe</td>
<td>A.B., Washington Univ.</td>
<td>Jewish Hospital, St. Louis, Missouri</td>
<td>Missouri</td>
</tr>
<tr>
<td>Kwan, Benjamin C. K.</td>
<td>B.S., St. Louis Univ.</td>
<td>Los Angeles County Hospital, Los Angeles, California</td>
<td>Missouri</td>
</tr>
<tr>
<td>Kyger, David Louis</td>
<td>St. John's Mercy Hospital</td>
<td>St. Louis, Missouri</td>
<td>Missouri</td>
</tr>
<tr>
<td>Lange, Paul Henry</td>
<td>B.A., Lawrence Coll.</td>
<td>Strong Memorial Hospital, Rochester, New York</td>
<td>New York</td>
</tr>
<tr>
<td>Letcher, Frank Scott</td>
<td>B.A., Yale Univ.</td>
<td>U.S. Naval Hospital, Philadelphia, Pennsylvania</td>
<td>Pennsylvania</td>
</tr>
<tr>
<td>London, Irving Louis</td>
<td>B. A., Univ. of California</td>
<td>Univ. of Minnesota Hospitals, Minneapolis, Minnesota</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Massie, Henry Norton</td>
<td>A.B., Harvard Univ.</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
<td>Missouri</td>
</tr>
<tr>
<td>McDonald, George</td>
<td>B.S., St. Benedict's Coll.</td>
<td>King County Hospital, Seattle, Washington</td>
<td>Missouri</td>
</tr>
<tr>
<td>McLean, Robert Beatty</td>
<td>B.A., Vanberbilt Univ.</td>
<td>King County Hospital, Seattle, Washington</td>
<td>Washington</td>
</tr>
<tr>
<td>Morris, Len Wayne</td>
<td>University of Oregon</td>
<td>University Medical School Hospitals and Clinic, Portland, Oregon</td>
<td>Portland, Oregon</td>
</tr>
<tr>
<td>Oehlerl, William</td>
<td>Union Memorial Hospital</td>
<td>Baltimore, Maryland</td>
<td>Maryland</td>
</tr>
<tr>
<td>Porter, Robert</td>
<td>B.A., Ottawa Univ.</td>
<td>University of Kansas Medical Center Hospitals, Kansas City, Kansas</td>
<td>Kansas</td>
</tr>
<tr>
<td>Ratkin, Gary Alan</td>
<td>A.B., Rice Univ.</td>
<td>Health Center Hospitals, Pittsburgh, Pennsylvania</td>
<td>Pennsylvania</td>
</tr>
<tr>
<td>Reddick, Max Edward</td>
<td>B.S., Drury Coll.</td>
<td>Brooke General Hospital, U.S. Army, San Antonio, Texas</td>
<td>Texas</td>
</tr>
<tr>
<td>Reich, Alan Joel</td>
<td>Bronx Municipal Hospital</td>
<td>New York, New York</td>
<td>Missouri</td>
</tr>
<tr>
<td>Riggis, Thomas Earl</td>
<td>B.A., Univ. of Oklahoma</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
<td>Missouri</td>
</tr>
<tr>
<td>Rosenthal, Randall</td>
<td>B.S., Purdue Univ.</td>
<td>Mount Sinai Hospital, New York, New York</td>
<td>New York</td>
</tr>
<tr>
<td>Rothman, Jay Allen</td>
<td>A.B., Washington Univ.</td>
<td>Bellevue Hospital, New York, New York</td>
<td>Missouri</td>
</tr>
<tr>
<td>Seddon, James</td>
<td>A.B., Harvard Coll.</td>
<td>Ben Taub General Hospital, Houston, Texas</td>
<td>Missouri</td>
</tr>
<tr>
<td>Shaw, Richard Clarke</td>
<td>A.B., State Univ. of Iowa</td>
<td>Barnes Hospital, St. Louis, Missouri</td>
<td>Missouri</td>
</tr>
<tr>
<td>Shay, Robert Dennis</td>
<td>Gorgas Hospital, Balboa Heights, Canal Zone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simons, Paul Stephen</td>
<td>B.A., Univ. of Texas</td>
<td>Bronx Municipal Hospital, New York, New York</td>
<td>Missouri</td>
</tr>
<tr>
<td>Slavin, Richard Jay</td>
<td>Stanford University Hospitals, Palo Alto, California</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specter, Michael Joseph</td>
<td>A.B., Barnes Hospital, St. Louis, Missouri</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stevenson, Edward Kent</td>
<td>B.A., Ottawa Univ.</td>
<td>St. John's Mercy Hospital, St. Louis, Missouri</td>
<td>Missouri</td>
</tr>
<tr>
<td>Strauss, Melvin</td>
<td>B.A., Univ. of Rochester</td>
<td>Bronx Municipal Hospital, New York, New York</td>
<td>Missouri</td>
</tr>
<tr>
<td>Stromberg, Eric Decatur</td>
<td>A.B., Kenyon Coll.</td>
<td>Indiana University Hospitals, Indianapolis, Indiana</td>
<td>Indiana</td>
</tr>
<tr>
<td>Treister, Michael Roy</td>
<td>Chicago Wesley Memorial Hospital, Chicago, Illinois</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ullman, Ronald Herman</td>
<td>Good Samaritan Hospital, Portland, Oregon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utley, Joella Faye</td>
<td>B.A., Oklahoma City Univ.</td>
<td>Presbyterian Medical Center, San Francisco, California</td>
<td>California</td>
</tr>
<tr>
<td>Van Meter, Sharon</td>
<td>A.B., Washington Univ.</td>
<td>State University of New York Upstate Medical Center, Syracuse, New York</td>
<td>New York</td>
</tr>
<tr>
<td>Van Meter, Stephen Wochler</td>
<td>A.B., Stanford Univ.</td>
<td>State University of New York Upstate Medical Center, Syracuse, New York</td>
<td>New York</td>
</tr>
<tr>
<td>Vinicor, Frank B.A.</td>
<td>Yale Univ.</td>
<td>Indiana University Hospitals, Indianapolis, Indiana</td>
<td>Indiana</td>
</tr>
<tr>
<td>Walchner, Andreas Max</td>
<td>A.B., Earlham Coll.</td>
<td>St. Louis Children's Hospital, St. Louis, Missouri</td>
<td>Missouri</td>
</tr>
<tr>
<td>Wermuth, Albert</td>
<td>Jr., B.S., Washington State Univ.</td>
<td>Hunterdon Medical Center, Flemington, New Jersey</td>
<td>New Jersey</td>
</tr>
<tr>
<td>Ziporin, Philip</td>
<td>A.B., Cornell Univ.</td>
<td>University of Colorado Medical Center, Denver, Colorado</td>
<td>Missouri</td>
</tr>
</tbody>
</table>
THIRD-YEAR CLASS (1966-67)

Altman, Jeremy—Philadelphia, Pennsylvania
Andersen, Charles Frederic, B.A., Montana State Univ., '64; B.S., '66—Dillon, Montana
Arnold, Kenneth Jerome, A.B., Univ. of Notre Dame, '64—Belleville, Illinois
Asnis, Stanley Edwin—West Orange, New Jersey
Baker, Gary Edwin, B.S., Univ. of Wyoming, '64—Wheatland, Wyoming
Barack, Bruce Millard, A.B., Washington Univ., '63—St. Louis, Missouri
Binnington, Hudson Bradley, Jr., A.B., Washington Univ., '64—St. Louis, Missouri
Boedeker, Edgar Charles, A.B., Harvard Univ., '64—St. Louis, Missouri
Border, Wayne Allen—Bremen, Indiana
Brasfield, Daniel Lynon, A.B., Vanderbilt Univ., '64—Tupelo, Mississippi
Brock, Jack Arthur, B.S., Miami Univ., '63—Hamilton, Ohio
Buerk, Kenneth Melvin, A.B., Princeton Univ., '64—Columbus, Ohio
Carlton, Lynn Norman, A.B., Wittenberg Univ., '64—Oscoda, Michigan
Cibis, Gerhard Wolfgang, A.B., Washington Univ., '63—St. Louis, Missouri
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
Davie, Joseph Myrten, A.B., Indiana Univ., '62; A.M., '64—La Porte, Indiana
Deem, 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
Geiger, Kenneth H., A.B., Antioch Coll., '64—Long Beach, New York
Giron, Louis Tellez, Jr., B.A., Rice Univ., '64—San Antonio, Texas
Gofforth, James Morris—Comfort, Texas
Golden, David, A.B., Grinnell Coll., '64—Arlington, Virginia
Gregg, Susan Annette, B.S., Univ. of Idaho, '64—Pullman, Washington
Halperin, Thomas Edgar, A.B., Univ. of Michigan, '64—Peoria, Illinois
Hanovich, Gary David, B.A., Rice Univ., '64—Houston, Texas
Harlow, Mark Charles, B.A., State Univ. of South Dakota, '65; B.S., '66—Redfield, South Dakota
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—Floral Park, 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
McCulley, 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
Pearson, William Edward—Fort Smith, Arkansas
Perez, Rodolfo Nestor, Jr.—Roma, Texas
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—Saco City, Iowa
Rothschild, James Goodfriend, B.A., Wesleyan Univ., '64—St. Louis, Missouri
Sayre, Blaine Michael—Steubenville, Ohio
Sayre, Maribeth Prewitt, B.A., Univ. of Arkansas, '64—Tiller, Arkansas
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
Smith, Emily Louise—Belleville, Illinois
Stabenow, David Lee, B.S., Univ. of Georgia, '64—Atlanta, Georgia
Stover, Andrea, B.A., Univ. of Colorado, '64—Evanston, Illinois
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
Williams, David Lawrence, B.A., Lawrence Coll., '64—San Marino, California
Winkelman, Jan Zlatkin, A.B., Univ. of Michigan, '64—Detroit, Michigan
Wisgerhof, Max Vernon, II, B.A., Cornell Coll., '64—Victoria, Illinois
Zweig, Mark Howard, A.B., Washington Univ., '64—Silver Spring, Maryland

SECOND-YEAR CLASS (1966-67)
Adams, William Larry—Caldwell, Idaho
Armstrong, John William, Jr., B.S., Univ. of Idaho, '65—Lewiston, Idaho
Atwood, James DeHaven—San Francisco, California
Baker, John William, Jr.—Kirkwood, Missouri
Bar, 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 Nyack, 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
Dowell, George Howard, Jr., B.A., Amherst Coll., '60—Baltimore, Maryland

150
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
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
Goldring, Steven Reyburn, B.A., Williams Coll., '65—St. Louis, Missouri
Goodman, Charles Edward, Jr., B.A., Univ. of the South, '65—Decherd, Tennessee
Greener, Donald Joseph, B.S., Allegheny Coll., '65—Harbor Creek, Pennsylvania
Groble, Robert Edward, B.S., Univ. of Illinois, '65—Barrington, Illinois
Grunow, William Agur, B.A., Valparaiso Univ., '65—Fort Worth, Texas
Hall, Thomas Bryan III, B.A., Univ. of the South, '65—Kansas City, Missouri
Hammond, 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
Hershey, Harry Thornton, A.B., Columbia Univ., '65—Chatham, New Jersey
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
Kolody, Robert Charles, A.B., Columbia Univ., '65—Scarsdale, New York
Knuteson, Edward Lee Roy, B.S., Purdue Univ., '65—Blackstone, Illinois
Kraetsch, Robert Elroy, B.S., Univ. of Illinois, '65—Peoria, Illinois
Krajeovic, 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
Neuhauer, William Nathan, B.S., Univ. of Arizona, '65—Tucson, Arizona
Nevis, Thomas Ernest, A.B., Rockhurst Coll., '65—Rockford, Illinois
Newman, Robert Crouch—Ogden, Utah
Oxenhandler, Donald Craig—St. Louis, Missouri
Paul, Robert George, A.B., Washington Univ., '64—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., Stanford Univ., '65—Odessa, Texas
Schroeder, Ronald Lee—Carrollton, Illinois
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Institution</th>
<th>City</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schupbach, Curtis Wayne</td>
<td>A.B.</td>
<td>Univ. of Missouri</td>
<td>Sedalia, Missouri</td>
<td></td>
</tr>
<tr>
<td>Sheridan, John Joseph</td>
<td>B.A.</td>
<td>Univ. of Notre Dame</td>
<td>St. Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>Siegel, Barry Alan</td>
<td></td>
<td>Chicago</td>
<td></td>
<td>Illinois</td>
</tr>
<tr>
<td>Sims, Kenneth Lee</td>
<td></td>
<td>Lubbock, Texas</td>
<td></td>
<td>Texas</td>
</tr>
<tr>
<td>Smith, Sydney Allen III</td>
<td></td>
<td>Univ. of Mississippi</td>
<td>Jackson, Mississippi</td>
<td></td>
</tr>
<tr>
<td>Smith, William Clifton</td>
<td>B.A.</td>
<td>Vanderbilt Univ.</td>
<td>Pembroke, Kentucky</td>
<td></td>
</tr>
<tr>
<td>Sullivan, James Andy</td>
<td></td>
<td>St. Charles</td>
<td></td>
<td>Missouri</td>
</tr>
<tr>
<td>Swan, Davis McKeen</td>
<td>B.S.</td>
<td>Univ. of Wyoming</td>
<td>Riverton, Wyoming</td>
<td></td>
</tr>
<tr>
<td>Trotter, John Lee</td>
<td>B.A.</td>
<td>DePauw Univ.</td>
<td>St. Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>Turner, William George Jr.</td>
<td></td>
<td>DePauw Univ.</td>
<td>Worthington, Ohio</td>
<td></td>
</tr>
<tr>
<td>Williams, Paul Roy</td>
<td>B.S.</td>
<td>Evangel Coll.</td>
<td>Springfield, Missouri</td>
<td></td>
</tr>
<tr>
<td>Wintroub, Bruce Urich</td>
<td>A.B.</td>
<td>Amherst Coll.</td>
<td>Omaha, Nebraska</td>
<td></td>
</tr>
<tr>
<td>Witzum, Joseph Lee</td>
<td>B.A.</td>
<td>Vanderbilt Univ.</td>
<td>Madison, Tennessee</td>
<td></td>
</tr>
<tr>
<td>Wyatt, Richard Gregory</td>
<td>B.A.</td>
<td>Central Methodist Coll.</td>
<td>Lebanon, Missouri</td>
<td></td>
</tr>
<tr>
<td>Younger, W. B. Jerry</td>
<td></td>
<td>Abilene, Texas</td>
<td></td>
<td>Texas</td>
</tr>
<tr>
<td>Zopf, David Arnold</td>
<td>A.B.</td>
<td>Washington Univ.</td>
<td>St. Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>Alderson, Philip Otis</td>
<td>A.B.</td>
<td>Washington Univ.</td>
<td>St. Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>Alex, Neil Steven</td>
<td>B.A.</td>
<td>Yale Univ.</td>
<td>St. Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>Anderson, Donald Carroll</td>
<td></td>
<td>Fort Collins, Colorado</td>
<td></td>
<td>Colorado</td>
</tr>
<tr>
<td>Beamer, Jo Ellen</td>
<td>A.B.</td>
<td>Indiana Univ.</td>
<td>Altadena, California</td>
<td></td>
</tr>
<tr>
<td>Becker, Bruce Harlan</td>
<td></td>
<td>St. Louis</td>
<td></td>
<td>Missouri</td>
</tr>
<tr>
<td>Bell, John Carl</td>
<td>B.A.</td>
<td>Washington Univ.</td>
<td>Hobbs, New Mexico</td>
<td></td>
</tr>
<tr>
<td>Birns, Robert Isack</td>
<td></td>
<td>Jamaica, New York</td>
<td></td>
<td>New York</td>
</tr>
<tr>
<td>Blattner, William Albert</td>
<td>A.B.</td>
<td>Washington Univ.</td>
<td>Houston, Texas</td>
<td></td>
</tr>
<tr>
<td>Brasch, Robert Charles</td>
<td>B.S.</td>
<td>Miami Univ.</td>
<td>St. Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>Brick, Jeffrey Michael</td>
<td>B.S.</td>
<td>Duke Univ.</td>
<td>Prairie Village, Kansas</td>
<td></td>
</tr>
<tr>
<td>Brodie, Bruce Rogers</td>
<td>B.S.</td>
<td>Purdue Univ.</td>
<td>St. Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>Bruckner, David Armstrong</td>
<td>B.S.</td>
<td>Ohio Univ.</td>
<td>Miamisburg, Ohio</td>
<td></td>
</tr>
<tr>
<td>Burney, Donald Patrick</td>
<td></td>
<td>Corpus Christi, Texas</td>
<td></td>
<td>Texas</td>
</tr>
<tr>
<td>Campbell, Stephen Edward</td>
<td>B.A.</td>
<td>Duke Univ.</td>
<td>Graniteville, Vermont</td>
<td></td>
</tr>
<tr>
<td>Castellanet, Mark John</td>
<td>B.A.</td>
<td>Lawrence Univ.</td>
<td>Evergreen Park, Park, Illinois</td>
<td></td>
</tr>
<tr>
<td>Chambers, Aubrey Pat</td>
<td></td>
<td>Muskogee, Oklahoma</td>
<td></td>
<td>Oklahoma</td>
</tr>
<tr>
<td>Cloninger, Claude Robert</td>
<td>B.A.</td>
<td>Univ. of Texas</td>
<td>Beaumont, Texas</td>
<td></td>
</tr>
<tr>
<td>Cooper, Dennis Charles</td>
<td></td>
<td>St. Louis</td>
<td></td>
<td>Missouri</td>
</tr>
<tr>
<td>Cowan, Bruce Milton</td>
<td>B.A.</td>
<td>Cornell Univ.</td>
<td>Ithaca, New York</td>
<td></td>
</tr>
<tr>
<td>Crews, Eugene Lyndon III</td>
<td>A.B.</td>
<td>Univ. of Missouri</td>
<td>St. Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>Crofoot, Aaron Brooks</td>
<td>A.B.</td>
<td>DePauw Univ.</td>
<td>Mishawaka, Indiana</td>
<td></td>
</tr>
<tr>
<td>Data, Joanna Lucille</td>
<td>B.S.</td>
<td>Purdue Univ.</td>
<td>West Lafayette, Indiana</td>
<td></td>
</tr>
<tr>
<td>Dickinson, William Hull</td>
<td>B.A.</td>
<td>Univ. of Oklahoma</td>
<td>Duncan, Oklahoma</td>
<td></td>
</tr>
<tr>
<td>Dierckson, Dale Francis</td>
<td>B.A.</td>
<td>Rice Univ.</td>
<td>St. Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>Dunlop, Stephen Richard</td>
<td></td>
<td>St. Louis</td>
<td></td>
<td>Missouri</td>
</tr>
<tr>
<td>Escobedo, Marilyn Barnard</td>
<td>B.A.</td>
<td>Baylor Univ.</td>
<td>Torrance, California</td>
<td></td>
</tr>
<tr>
<td>Ewing, Stephen Lee</td>
<td>A.B.</td>
<td>Northwestern Univ.</td>
<td>Albion, Illinois</td>
<td></td>
</tr>
<tr>
<td>Fisher, Bruce David</td>
<td>A.B.</td>
<td>Johns Hopkins Univ.</td>
<td>Long Branch, New Jersey</td>
<td></td>
</tr>
<tr>
<td>Freed, Avery Morton</td>
<td></td>
<td>Sausalito, California</td>
<td></td>
<td>California</td>
</tr>
</tbody>
</table>
Flake, Kathryn Kinlock, A.B., Washington Univ., '66—North Little Rock, Arkansas
Garriga, Francisco Javier, B.S., Univ. of Puerto Rico, '66—Rio Piedras, Puerto Rico
Gaskin, Ronald Jay, A.B., Washington Univ., '66—St. Louis, Missouri
Gumbelevicius, John Peter, A.B., Northwestern Univ., '66—St. Louis, Missouri
Harris, Clifton Gordon, A.B., Stanford Univ., '66—Fresno, California
Hickman, Scot George, A.B., Duke Univ., '66—DeKalb, Illinois
Hieb, Barry Randall, A.B., Bethel Coll., '66—Henderson, Nebraska
Hilliker, Elizabeth, A.B., Washington Univ., '65—St. Louis, Missouri
Hutter, Sandra Carnesale, A.B., Univ. of Michigan, '62—New York, New York
Ikossi, Maria Georgiou—Nicosia, Cyprus
Kamenetzky, Stephen Allen—St. Louis, Missouri
Katz, Jay Alan, B.A., Vanderbilt Univ., '66—Cincinnati, Ohio
Kelley, James Norling, B.S., Univ. of Idaho, '66—Shoshone, Idaho
Kelly, Stephen Eulene, B.S., Univ. of Oklahoma, '66—Bartlesville, Oklahoma
Kelsey, Judith Ann—Salt Lake City, Utah
Kotner, Steven Alfred, A.B., Washington Univ., '66—Eldorado, Illinois
Kramer, Morton Earle, A.B., Princeton Univ., '61—Eastport, Maine
Kurz, Larry Stephen, A.B., Washington Univ., '66—Omaha, Nebraska
Larson, Dana, B.A., Macalester Coll., '66—Velva, North Dakota
Lavorgna, Lorenzo Sebastian, A.B., Boston Univ., '66—East Hartford, Connecticut
Lusk, Rodney Hammond, A.B., Duke Univ., '66—Gallipolis, Ohio
MacDonald, Michael John, B.S., Univ. of Notre Dame '66—Eau Claire, Wisconsin
Macmanus, Quentin, B.S., Univ. of Notre Dame, '66—Bartlesville, Oklahoma
Mennen, Paul Arthur, B.S., Univ. of Wisconsin, '66—Neenah, Wisconsin
Mick, James Michael, B.S., Univ. of Dayton, '66—Hamilton, Ohio
Milder, Michael Stuart, A.B., Princeton Univ., '66—St. Louis, Missouri
Margul, Betty Lee, A.B., Washington Univ., '66—St. Louis, Missouri
Marshall, Ronald Paul Alfred, B.S., Univ. of Washington, '65—Seattle, Washington
McMahen, Thomas Keith, A.B., Columbia Univ., '66—Fort Wayne, Indiana
Miller, Alexander Lewis, B.A., Yale Univ., '65—Greenwich, Connecticut
Mollman, Marilyn Agnes, B.A., Northwestern Univ., '66—St. Louis, Missouri
Moreland, John Porter—Lincoln, Nebraska
Okamoto, Gary Akio, B.A., Univ. of Hawai'i, '66—Honolulu, Hawaii
Orthals, David William, B.S., St. Louis Univ., '66—St. Louis, Missouri
Palanke, Lyle Douglas, Jr., B.S., Univ. of Texas, '66—Orange, Texas
Pattengale, Paul King, B.S., Boston Coll., '66—Webster Groves, Missouri
Rigg, Lee Allen, B.A., Arizona State Univ., '61; Ph.D., Univ. of Colorado, '65—Tempe, Arizona
Robinson, John Charles—White Plains, New York
Scharp, David William—Columbia, Missouri
Simon, Toby Lee, A.B., Johns Hopkins Univ., '66—St. Louis, Missouri
Simpson, Paul Cooper, Jr., A.B., Davidson Coll., '66—Nashville, Tennessee
Smith, Richard Lee, B.S., St. Louis Univ., '66—Wood River, Illinois
Snyder, Rush Alexander, Jr., B.A., Rice Univ., '66—Canadian, Texas
Stafford Myron, B.S., Hillsdale Coll., '59; M.S., Michigan State Univ., '63—Lansing, Michigan
Stanton, William III, A.B., Harvard Univ., '65—Atchison, Kansas
Stern, Peter Joseph, B.A., Williams Coll., '66—Cincinnati, Ohio
Summers, William Koopmans, A.B., Univ. of Missouri, '66—Jefferson City, Missouri

153
Sumner, Hatton William, B.S., St. Edwards Univ., '66—West, Texas
Swenson Keith Howard, B.S., Univ. of Idaho, '66—Rockford, Illinois
Throop, George Reeves, III, B.A., Hanover Coll., '66—St. Louis, Missouri
Tuttle, William Montgomery, B.A., Indiana Univ., '66—Owensville, Kentucky
Udesky, Robert Alan, A.B., Oberlin Coll., '66—Winnetka, Illinois
Wood, Dennis Edward—Rocheport, Missouri
Zurbrugg, Eric Brinton, B.S., U.S., Air Force Academy, '65—Zanesville, Ohio

SUMMARY OF STUDENTS IN THE SCHOOL OF MEDICINE

<table>
<thead>
<tr>
<th>Class</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth-Year</td>
<td>76</td>
</tr>
<tr>
<td>Third-Year</td>
<td>82</td>
</tr>
<tr>
<td>Second-Year</td>
<td>81</td>
</tr>
<tr>
<td>First-Year</td>
<td>89</td>
</tr>
<tr>
<td>Total</td>
<td>328</td>
</tr>
</tbody>
</table>
ASSISTANTS, FELLOWS, AND TRAINEES 1966-67

Harry B. Abramowitz, Assistant in Surgery
James E. Adams, Assistant and Trainee (NIMH) in Psychiatry
Phyllis Jean Agers, Research Assistant in Pharmacology
Gerard P. Ailhaud, Postdoctoral Fellow in Biological Chemistry
Phillip H. Albright, Assistant in Medicine (Dermatology)
Ronald W. Alexander, American Cancer Society Clinical Fellow in Pathology
Marlys K. Allen, Assistant in Speech Correction in Child Psychiatry
Thomas H. Allen, Assistant in Plastic Surgery
Carl R. Alving, Assistant in Medicine
Charles B. Anderson, Assistant in Surgery
Jeannine O. Andrews, Research Assistant in Medical Psychology in Psychiatry
Sharad V. Apte, Rockefeller Foundation Fellow in Medicine (Hematology)
Gonzalo Arango, Trainee (NIH) in Medicine (Cardiology)
Neva P. Arribas, Fellow in Ophthalmology
Aron Ary, Trainee (NIH) in Medicine (Cardiology)
James Bruce Atcheson, Assistant in Medicine

Om Parkash Bahl, Fellow in Medicine (Cardiology)
Edward B. Baietto, Jr., Assistant in Medicine
Thomas J. Banton, Jr., Fellow and Trainee (NIAMD) in Orthopedic Surgery
John Lester Bardsley, Assistant in Radiology
Ronald Wain Barnet, Fellow in Ophthalmology
Norman Carl Barohn, Research Fellow in Medical Psychology in Psychiatry
Hugh C. Bartlett, Assistant in Surgery
Carl J. Battaglia, Assistant in Obstetrics and Gynecology
Everett A. Begen, Jr., Assistant in Obstetrics and Gynecology
Larry R. Beideman, Research Fellow and Research Trainee (NIMH) in Medical Psychology in Psychiatry
Clarence E. Bell, Jr., Trainee (NIAMD) in Medicine (Hematology)
Edward F. Berg, Assistant in Ophthalmology
Donald Bergsma, Assistant and Fellow (NINDB) in Ophthalmology
Stuart Berkowitz, Assistant in Medicine
Paul Eliot Berman, Assistant in Medicine
Bruce H. Berryhill, Assistant in Otolaryngology
Madhukar N. Biside, Research Assistant in Biomedical Computer Laboratory
John F. Bigger, Jr., Assistant and Fellow (NINDB) in Ophthalmology (on leave of absence)
Claire H. Birge, Predoctoral Trainee (NIGMS) in Biological Chemistry
Stanley J. Birge, Jr., Assistant in Medicine
Joseph T. Black, Assistant in Medicine
Charles R. Blackwell, Assistant in Anesthesiology
Delores Blehm, Predoctoral Fellow (NDEA) in Pharmacology
Andrew L. Bedicky, Research Assistant in Biomedical Computer Laboratory
Gary Mack Boelling, Trainee (NHI) in Medicine (Cardiology)
Mary Kessis Bofinger, Assistant in Pediatrics
Ned W. Bogie, Trainee (NIAID) in Microbiology
George M. Bohigian, Fellow in Ophthalmology
Suzanne E. Bohn, Research Assistant in Medical Psychology in Child Psychiatry
Irving Boime, Predoctoral Fellow and Trainee (NIGMS) in Pharmacology
Vivien Boniuk, Assistant and Fellow (NINDB) in Ophthalmology
Soffy Duque Botero, Assistant in Pathology

155
Robert S. Bourke, Fellow in Neurological Surgery
William J. Boyd, Jr., Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Mary Ellen Bradley, Research Assistant in Pharmacology
Mary B. Breckenridge, Research Assistant in Sociology in Psychiatry
George Henry Bresnick, Assistant and Fellow (NINDB) in Ophthalmology
David Bridger, Research Assistant in the Biomedical Computer Laboratory
Sandra H. Bridges, Trainee (NIAID) in Microbiology
William E. Bridson, Assistant in Medicine
Pacelli E. Brion, Assistant in Psychiatry
Frances E. Brock, Research Assistant in Preventive Medicine
John E. Brooks, Research Assistant in Neurology
Andrew Marion Brown, Assistant and Fellow (NINDB) in Otolaryngology
Barbara N. Brown, Assistant in Medicine (Dermatology)
Howard S. Brown, Fellow in Thoracic and Cardiovascular Surgery
James Brown, Assistant in Pediatrics
Joseph G. Brown, Research Assistant in Pharmacology
Richmond M. Brown, Assistant in Ophthalmology
Terrance A. Brown, Postdoctoral Trainee in Biophysics in Radiology, Radiation Physics, and Nuclear Medicine
Richard J. Brownson, Assistant in Otolaryngology
Jack A. Brucher, Assistant in Radiology
John H. Brunner, Assistant in Surgery
Ronald Marshall Burde, Assistant and Fellow (NINDB) in Ophthalmology
William A. Burke, Fellow in Thoracic and Cardiovascular Surgery
Somporn Bussaratid, Assistant in Psychiatry
A. Sevim Buyukdevrim, Trainee (NIAMD) in Preventive Medicine
Remi Jere Cadoret, Assistant and Trainee (NIMH) in Psychiatry
Thomas C. Calcaterra, Assistant in Otolaryngology
David Leroy Camenga, Assistant and Fellow (NINDB) in Neurology
Dennis P. Cantwell, Assistant and Trainee (NIMH) in Psychiatry
Henry M. Carder, Assistant in Otolaryngology
Juanita L. Carl, Research Assistant in Biochemistry in Psychiatry
R. Hutson Carspecken, Jr., Assistant in Surgery
Richard B. Caspari, Assistant in Surgery
Vincent Castellucci, Fellow (NINDS) in Neurology
Nelson Ceballos, Assistant in Child Psychiatry
Cavit Cehreli, Fellow in Medicine (Hematology)
Donald S. Chambers, Assistant and Trainee (NIMH) in Psychiatry
Preston J. Chandler, Jr., Assistant in Surgery (on leave of absence)
John P. Christy, Assistant in Surgery
Dong Kyo Chung, Fellow in Medicine (Cardiology)
Gerald S. Clack, Research Fellow and Research Trainee (NIMH) in Medical Psychology in Psychiatry
Ivan S. Cliff, Jr., Assistant in Medicine (Dermatology)
Phyllis F. Cohen, Predoctoral Fellow (NSF) in Biological Chemistry
Sheitel J. Cohen, Assistant in Anesthesiology
Robert W. Colman, Trainee (NIAMD) in Medicine (Enzymology)
Thomas Homer Comegys, Research Assistant in Pathology
John P. Connors, Assistant in Surgery
ASSISTANTS, FELLOWS, AND TRAINEES

John M. Corboy, Fellow in Ophthalmology
Orozimbo A. Costa, Research Fellow in Otolaryngology
James R. Couch, Jr., Assistant in Medicine
Alan Gordon Craig, Assistant and Trainee (NIMH) in Psychiatry
Sheila Wood Craig, Assistant and Trainee (NIMH) in Child Psychiatry
Neil A. Crane, Assistant in Medicine
Garrett J. Crotty, Assistant in Surgery (on leave of absence)
Philip E. Cryer, Assistant in Medicine

Sompong Daengsurisri, Fellow in Psychiatry
Edward B. Dalton, Fellow and Trainee (NIAMD) in Orthopedic Surgery
Ralph D. D’Amore, Assistant in Surgery
Harriet S. Darvish, Research Assistant in Sociology in Psychiatry
Gustave L. Davis, Assistant and Trainee (NIGMS) in Experimental Pathology
James W. Debnam, Jr., Assistant in Radiology
Louis Powell Dehner, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Armando Gomes De Melo, Postdoctoral Fellow in Biological Chemistry
Susan L. Desmarais, Assistant in Pediatrics

Kurt Deubellheiss, Assistant in Medicine
William H. Diehl, Jr., Assistant and Fellow (NINDB) in Otolaryngology
William J. Dieruf, Assistant and Trainee (NIMH) in Psychiatry
Bozidar Djordjevic, Research Fellow in Radiology
John Patrick Dolan, Assistant and Fellow (NINDB) in Neurology
Thomas C. Douhtitt, Research Fellow and Trainee (NIMH) in Medical Psychology in Psychiatry
William Kent Drake, Assistant in Pathology
Phillenore A. Drummond, U.S.P.H.S. Predoctoral Fellow in Biological Chemistry
Margaret E. Duffy, Research Assistant in Child Psychiatry
James Edward Dulaney, Research Assistant in Social Work in Psychiatry
David L. Dunner, Assistant and Trainee (NIMH) in Psychiatry
Stewart B. Dunsker, Assistant in Neurological Surgery

Irvin A. Ebaugh, Jr., Assistant and Trainee (NIMH) in Psychiatry
Dave H. Eby, Assistant in Medicine (on leave of absence)
James Earl Edwards, Assistant and Trainee (NIMH) in Child Psychiatry
Ivan O. Elkan, Fellow in Medicine (Renal)
Jeanette E. Ellerman, Research Assistant in Pharmacology
Frederick Thomas Ellingson, Special Fellow (NINDB) in Ophthalmology
Stephen S. Ellis II, Assistant in Surgery
James C. Elsasser, Assistant in Orthopedic Surgery
John Elozson, Postdoctoral Fellow in Biological Chemistry
Neil Elvick, Assistant in Pediatrics
J. David Emerson, Assistant in Surgery
Adolph M. Engbrethson, Research Assistant in the Biomedical Computer Laboratory
Margaret E. Engel, Trainee (NIAID) in Microbiology
James M. England, Trainee (NIGMS) in Anatomy
Ervin H. Epstein, Jr., Assistant in Medicine
Jose Marie Eacriu, Research Assistant in Biochemistry in Psychiatry
Ronald G. Evans, Assistant in Radiology (on leave of absence)
Donna L. Evert, Assistant in Education in Child Psychiatry
Eric Ezekiel, Trainee (NIAMD) in Medicine (Hematology)
Rivka Ezekiel, Assistant in Psychiatric Social Work in Child Psychiatry

157
Ronald Denis Farran, Assistant in Medicine  
Wade Faulkner, Assistant in Ophthalmology  
Frederick S. Fehr, Research Fellow and Trainee (NIMH) in Medical Psychology in Psychiatry  
John P. Feighner, Assistant and Trainee (NIMH) in Psychiatry  
Martin H. Feldman, Assistant and Special Fellow (NINDB) in Neurology  
Richard S. Felkner, Assistant in Otolaryngology  
John W. Fenlon, Assistant in Radiology  
Francis M. Fennegan, Assistant in Neurological Surgery  
Charles M. Fermon, Assistant in Surgery (on leave of absence)  
Raymond W. Ferrier, Missouri and St. Louis Heart Associations Fellow in Thoracic and Cardiovascular Surgery  
Richard Fertel, Trainee (NSF) in Pharmacology  
Louis H. Fingerman, Assistant and Special Fellow (NINDB) in Ophthalmology  
John R. Fischer, Assistant and Trainee (NIMH) in Psychiatry  
Evelyn J. Fisher, Assistant in Medicine  
James Floerchinger, Fellow in Ophthalmology  
Gary Russell Fogg, Assistant in Ophthalmology  
Jaroslava Folbergrova, Fellow (NINDB) in Pharmacology  
Marianne C. Freeking, Predoctoral Fellow and Trainee (NIGMS) in Pharmacology  
Steven Fredman, Assistant in Medicine  
Harry C. Froede, Trainee (NIGMS) in Pharmacology  
Wayne Edwin Fung, Fellow in Ophthalmology  
Andrew E. Galakatos, Assistant in Obstetrics and Gynecology  
Thomas L. Gallagher, Research Assistant in Biomedical Computer Laboratory  
John T. Garland, Assistant in Medicine  
Michael Gass, Trainee (NIAMD) in Medicine (Dermatology)  
Michael H. Gay, Predoctoral Fellow and Trainee (NIGMS) in Pharmacology  
Philip G. George, Assistant in Surgery  
Willie Gerhardt-Hansen, Postdoctoral Fellow in Pharmacology  
Vernon W. Gerth, Jr., Research Assistant in the Biomedical Computer Laboratory  
Martha Jane Gibbons, Research Assistant in Pharmacology  
W. Ray Gibbons, Trainee (NIGMS) in Physiology  
Walter Bruce Gilson, Predoctoral Trainee (NIGMS) in Biological Chemistry  
Alfred Gilbert, Assistant in Medicine  
Doris C. Gilpin, Assistant in Child Psychiatry  
Donald Harold Glaser, Research Assistant in the Biomedical Computer Laboratory  
Paul E. Glatleider, Assistant in Surgery  
Howard N. Glick, Assistant in Medicine  
Benjamin M. Goldstein, Assistant in Medicine  
Harvey M. Goldstein, Assistant in Medicine  
William H. Goodring, Assistant in Orthopedic Surgery  
Donald W. Goodwin, Assistant and Trainee (NIMH) in Psychiatry  
Sally Lee Goodwin, Research Assistant in Pharmacology  
Stanley L. Gordon, Assistant in Surgery (on leave of absence)  
Abdullahi S. A. Goreish, Fellow in Ophthalmology  
Jay Michael Gorell, Assistant in Medicine  
Jeffrey A. Gottlieb, Assistant in Medicine  
Douglas Robert Gowler, Assistant and Trainee (NIMH) in Child Psychiatry  
Kenneth Otto Green, Fellow in Ophthalmology
Morton Robert Green, Fellow in Ophthalmology
David Z. Greensheid, Assistant in Medicine
Joshua B. Grossman, Assistant in Medicine
Robert L. Grubb, Jr., Assistant in Surgery
Robert A. Grummon, Assistant in Surgery
Levi E. R. Guerra, Advanced Fellow in Medicine (Renal)
David Gurwitz, Research Assistant in the Biomedical Computer Laboratory
Jon Erik Gustafson, Assistant in Radiology

Lawrence M. Haas, Assistant in Orthopedic Surgery
Edwin J. Hacker, Jr., Assistant in Medicine
Roderick C. Hall, Assistant in Surgery
James Halikas, Assistant in Medicine, Obstetrics and Gynecology, Pediatrics, and Surgery (Intern)
Dennis C. Hall, Predoctoral Trainee (NIAID) in Microbiology
Corinne T. Hammer, Research Assistant in Medicine
Matti Harkonen, PHS International Postdoctoral Fellow in Pharmacology
Hall E. Harrison, Assistant in Medicine
Herschel R. Harter, Assistant in Medicine
Boyd Kent Hartman, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Fumie Haruki, Research Assistant in Gerontology
Inoru Hashimoto, Research Assistant in Obstetrics and Gynecology
Michael Joe Haugh, Assistant and Fellow (NINDB) in Neurology
Margie E. Hause, Research Assistant in Surgery
Margaret L. Hayes, Assistant in Obstetrics and Gynecology
Julius Hecht, Research Assistant in Radiology
Mark P. Heilbrun, Fellow in Neurological Surgery
Carl P. Held, Assistant and Trainee (NIMH) in Psychiatry
Alan S. Hendin, Assistant in Medicine
Joyce I. Henry, Research Assistant in Microbiology
Raymond Herber, Trainee (NIAMD) in Medicine (Gastroenterology)
Paul William Herrmann, Jr., Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Rexford Lee Hill III, Research Assistant in the Biomedical Computer Laboratory
Joe E. Hills, Trainee (NHI) in Medicine (Cardiology)
Se-Key Ho, Research Assistant and Trainee (NIMH) in Psychiatry
Edgar J. Hocutt, Assistant in Medicine
Paul E. Hodel, Assistant in Anesthesiology
F. Donald Hoffmann, Assistant and Theron Catlin Research Fellow in Pediatrics
Willy Hoffmeister, Assistant in Child Psychiatry
Phillip E. Hoffsten, Assistant in Medicine
James A. Holliday, Assistant and Fellow (NINDB) in Otolaryngology
Tongchan Hongladarom, China Medical Board Fellow in Neurology
Masaharu Horino, Research Fellow in Medicine (Metabolism)
Saichi Hosoda, Research Assistant in Gerontology
Robert Eugene Howard, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Priscilla Liang Hsu, Assistant in Psychiatric Social Work
Robert S. Hunt, Assistant in Surgery
Robert E. Hurley, Jr., Assistant in Radiology
Camilla Hurwitz, Postdoctoral Fellow in Radiology
Salvatore Iurato, Research Fellow in Otolaryngology
ASSISTANTS, FELLOWS, AND TRAINEES

Raymond Jackson, Research Assistant in Pathology
Katherine M. Jacobs, Assistant in Radiology
Laurence S. Jacobs, Assistant in Medicine
Bernard M. Jaffe, Assistant in Surgery
Daryoush Jahanian, Assistant in Medicine, Obstetrics and Gynecology, Pediatrics and Surgery
   (Intern)
Jaime Jaramillo, Assistant in Child Psychiatry
Peter Lyall Jeffrey, Research Fellow in Biological Chemistry
Frank M. Jenkins, Assistant and Fellow (NINDB) in Otolaryngology
William Steven Joffe, Research Fellow in Ophthalmology
Charles A. Johnson, Assistant in Surgery
E. Wiley Johnson, Jr., Assistant in Medicine
Noel M. Johnson, Assistant and Trainee (NIMH) in Psychiatry
Elizabeth N. Jones, Research Assistant in Pharmacology
David M. Judge, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Firoze B. Jungalwala, Research Assistant in Biochemistry in Psychiatry

Marshall Kadin, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Harold Kanagawa, Assistant in Medicine
Charles M. Kantrow, Jr., Trainee (NIAMD) in Medicine (Renal) (on leave of absence)
Ming-Shian Kao, Assistant in Obstetrics and Gynecology
Ada Marie Kaplan, Research Assistant in Sociology in Child Psychiatry
Jan J. Karr, Research Assistant in Obstetrics and Gynecology
Haskins K. Kashima, Assistant and Fellow (NINDB) in Otolaryngology
Lewis L. Kastensmidt, Postdoctoral Research Fellow (NSF) in Biological Chemistry
Yutaka Kato, Fellow in Thoracic and Cardiovascular Surgery
Stanley F. Katz, Assistant in Orthopedic Surgery
Frederick C. Kauffman, Fellow (NINDB) in Pharmacology
William M. Keane, Assistant in Medicine
C. James Kees III, Assistant in Radiology
Edward Kendrick, National Defense Education Act Predoctoral Fellow in Biological Chemistry
Thomas Kerenyi, U.S.P.H.S. Fellow in Obstetrics and Gynecology
Clyde B. Kernek, Assistant in Surgery
Kavous Khodadoust, Assistant in Medicine, Obstetrics-Gynecology, Pediatrics and Surgery (Intern)
William R. Kidwell, U.S.P.H.S. Predoctoral Fellow in Biological Chemistry
Richard Kimura, Assistant in Medicine (Dermatology)
Sam Emerson Kinney, Assistant in Otolaryngology
Constance Kinsky, Research Assistant in Pharmacology
Joel B. Kirkpatrick, Trainee (NIGMS) in Anatomy
Barry B. Kirschbaum, Assistant in Medicine
Andrew P. Klaus, Assistant in Medicine
Kenneth M. Kleinman, Research Fellow and Trainee (NIMH) in Medical Psychology
Benjamin Kleinstiver, Assistant in Orthopedic Surgery
Mary Koch, Research Assistant in Preventive Medicine
Jorge E. Kostianovsky, Assistant and Trainee (NIMH) in Psychiatry
Mery Kostianovsky, Research Assistant in Experimental Pathology
Othon Kotoulas, Assistant in Pathology and Research Assistant in Experimental Pathology
S. Robert Kovac, Assistant in Obstetrics and Gynecology
Takashi Koyama, Research Fellow in Otolaryngology
Igor Krasnov, World Health Organization Fellow in Pharmacology

160
## ASSISTANTS, FELLOWS, AND TRAINEES

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albert H. Krause, Jr.</td>
<td>Assistant in Surgery</td>
</tr>
<tr>
<td>Marilyn O. Krause</td>
<td>Assistant in Pediatrics</td>
</tr>
<tr>
<td>Robert L. Krause</td>
<td>Assistant in Medicine</td>
</tr>
<tr>
<td>Jean Krembel, Visiting Postdoctoral Fellow</td>
<td>In Microbiology</td>
</tr>
<tr>
<td>Chester Kucinski, Trainee (NIAMD)</td>
<td>in Medicine (Enzymology)</td>
</tr>
<tr>
<td>Gary Kulak, Assistant and Trainee (NIMH)</td>
<td>in Psychiatry</td>
</tr>
<tr>
<td>Panja Kulapongs, Research Fellow and Fern</td>
<td>Waldman Fellow in Pediatrics</td>
</tr>
<tr>
<td>Haruo Kusama, Assistant in Psychiatry</td>
<td></td>
</tr>
<tr>
<td>George J. Kutas, Canadian Cancer Society</td>
<td>Fellow in Medicine (Hematology)</td>
</tr>
<tr>
<td>Catherine N. Kwan, Postdoctoral Trainee</td>
<td>(NIAID) in Microbiology</td>
</tr>
<tr>
<td>Myo M. Kyaw</td>
<td>Assistant in Radiology</td>
</tr>
<tr>
<td>Michael Kyriakos</td>
<td>American Cancer Society Clinical Fellow in Pathology</td>
</tr>
<tr>
<td>Leticia A. Lawson</td>
<td>Assistant in Psychiatry</td>
</tr>
<tr>
<td>Daniel Jay Landiss, Research Assistant in</td>
<td>Radiology</td>
</tr>
<tr>
<td>Romulo Tolentino Lara, Research Fellow and</td>
<td>in Pediatrics</td>
</tr>
<tr>
<td>Felix Larocca-Morel, Assistant and Trainee</td>
<td>(NIMH) in Child Psychiatry</td>
</tr>
<tr>
<td>Camilo Larrain, American College of</td>
<td>Physicians W. K. Kellogg Foundation Fellow in Medicine</td>
</tr>
<tr>
<td>Haruo Kusama, Assistant in Psychiatry</td>
<td>(Hematology)</td>
</tr>
<tr>
<td>Marilyn K. Lash</td>
<td>Research Assistant in Pharmacology</td>
</tr>
<tr>
<td>Wilfred Leach, Fellow in Otolaryngology</td>
<td></td>
</tr>
<tr>
<td>Frantsiska Ann Lee, Assistant in Medicine</td>
<td></td>
</tr>
<tr>
<td>Sidney Reeves, Assistant in Medicine</td>
<td></td>
</tr>
<tr>
<td>Sook Won Lee, Research Assistant in Medicine (Jewish Hospital)</td>
<td></td>
</tr>
<tr>
<td>Ralph Lehman, Assistant in Neurological Surgery</td>
<td></td>
</tr>
<tr>
<td>Raymond J. Leelu, Missouri and St. Louis Heart Associations Fellow in Medicine (Cardiology)</td>
<td></td>
</tr>
<tr>
<td>Jacques Lemire, Fellow in Ophthalmology</td>
<td></td>
</tr>
<tr>
<td>John Lescow, Research Assistant in Child Psychiatry</td>
<td></td>
</tr>
<tr>
<td>Victor Alan Levin, Assistant in Medicine</td>
<td></td>
</tr>
<tr>
<td>Morton A. Levy, American Cancer Society</td>
<td>Clinical Fellow and Trainee (NIAMD) in Medicine (Hematology)</td>
</tr>
<tr>
<td>Monte Deh Lien, Research Assistant in the</td>
<td>Biomedical Computer Laboratory</td>
</tr>
<tr>
<td>Randolph Lindblad, Fellow in Ophthalmology</td>
<td></td>
</tr>
<tr>
<td>James A. Lindblade, Assistant in Obstetrics and Gynecology</td>
<td></td>
</tr>
<tr>
<td>Walter Ling, Assistant and Fellow (NINDB)</td>
<td>in Neurology</td>
</tr>
<tr>
<td>Gerald R. Little, Trainee (NIGMS) in Physiology</td>
<td></td>
</tr>
<tr>
<td>Jasmina Ljuljic, Research Assistant in Medicine</td>
<td></td>
</tr>
<tr>
<td>Milojko Ljuljic, U.S.P.H.S. International Postdoctoral Fellow in Medicine (Immunology)</td>
<td></td>
</tr>
<tr>
<td>Henry J. Llewellyn, Assistant in Radiology</td>
<td></td>
</tr>
<tr>
<td>Charles Lockhart, Assistant in Pediatrics</td>
<td></td>
</tr>
<tr>
<td>Dorinda Loeffel, Assistant in Pediatrics</td>
<td></td>
</tr>
<tr>
<td>Robert G. Loeffel, Research Assistant in the Biomedical Computer Laboratory</td>
<td></td>
</tr>
<tr>
<td>Stephen P. Londe, Research and Clinical Fellow in Surgery, U.S.P.H.S. Postdoctoral Fellow in Physiology and Biophysics, and Fellow in Medicine (Cardiology)</td>
<td></td>
</tr>
<tr>
<td>Rodrigo Lopez, U.S.P.H.S. International Postdoctoral Fellow in Biological Chemistry</td>
<td></td>
</tr>
<tr>
<td>William M. Lovejoy, Assistant and Trainee (NIMH) in Psychiatry</td>
<td></td>
</tr>
<tr>
<td>Edward A. Luce, Assistant in Surgery</td>
<td></td>
</tr>
<tr>
<td>Robert J. Lukson, Assistant in Surgery</td>
<td></td>
</tr>
<tr>
<td>Jon Tek Lum, Assistant and Trainee (NIMH)</td>
<td>in Psychiatry</td>
</tr>
</tbody>
</table>

161
ASSISTANTS, FELLOWS, AND TRAINEES

Richard G. Lynch, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Maria Lyskowski, Assistant and Trainee (NIMH) in Psychiatry

Enrique G. Macias, Assistant in Pediatrics
Lambert C. Macias, Fellow in Ophthalmology
Richard L. Mackey, Assistant in Surgery
Prometeo Nebot Madarnas, Assistant in Pathology
Daniel T. Magidson, Research Assistant in Child Psychiatry
Oscar L. Majure, Jr., U.S. Navy Fellow in Plastic Surgery
Edward D. Maley, Assistant in Surgery
Robert Maltz, Assistant in Otolaryngology
Mario Manfredi, Fellow (NINDB) in Neurophysiology in Neurology
Julio Manrique, Assistant in Medicine (Dermatology)
Ali Moghadam Mansouri, Assistant in Medicine
Joseph Marmet, Assistant in Obstetrics and Gynecology
Ruben Marmet, Assistant in Obstetrics and Gynecology
Sue Marten, Assistant and Trainee (NIMH) in Psychiatry
David C. Martz, Assistant in Medicine
Ronald R. Masden, Assistant in Medicine
Edward K. Massin, Assistant in Medicine
Harvey J. Matof, Assistant in Medicine
George Mathew, Fellow in Medicine (Hypertension)
Norman Jay Matulef, Assistant in Medical Psychology in Child Psychiatry
John H. Mayer III, Assistant in Surgery
Sheila Kay Mayer, Research Assistant in Pharmacology
C. Glen Mayhall, Assistant in Medicine
Gilbert H. Mayor, Assistant in Medicine
Allan H. McCown, Assistant in Radiology
Michael Dene McDonald, Research Assistant in the Biomedical Computer Laboratory
Richard D. McGhee, Assistant and Clinical Fellow in Genitourinary Surgery
Daniel W. McKee, Jr., Trainee (NIGMS) in Anatomy
Charles Allen McKnight, Assistant in Obstetrics and Gynecology
Anne McLean, Postdoctoral Fellow in Biological Chemistry
Hugo Mejia, Assistant and Fellow (NINDB) in Neurology
Vidhya Mekanandha, Assistant in Pediatrics
Charles H. Meredith, Assistant and Trainee (NIMH) in Psychiatry
Boyd E. Metzger, American Cancer Society Postdoctoral Research Fellow in Biological Chemistry
Judith M. Metzger, Research Assistant in Radiology
Maria Michaelides, Research Fellow in Biological Chemistry
Jerry N. Middleton, Assistant in Obstetrics and Gynecology
Joseph I. Migliore, Assistant in Medicine, Obstetrics and Gynecology, Pediatrics and Surgery
(Intern)
Carol Ann Miller, Trainee (NIGMS) in Anatomy
Richard B. Miller, Assistant in Medicine (Dermatology)
Barry Modlin, Assistant and Fellow (NINDB) in Otolaryngology
William Mohlenbrock, Assistant in Pediatrics
Samad Montazeri, Fellow in Obstetrics and Gynecology
George Ignatius Moonansamy, Research Assistant in Biochemistry in Psychiatry
Loren R. Morgan, U.S. Army Fellow in Plastic Surgery
James C. Morris III, Assistant in Surgery
ASSISTANTS, FELLOWS, AND TRAINEES

James R. Morrison, Assistant and Trainee (NIMH) in Psychiatry
James D. Morrissey, Assistant in Surgery (on leave of absence)
Sylvia G. Moses, Research Assistant in Psychiatry
Laurence W. Muench, Assistant in Surgery
Gerald E. Murdock, Assistant in Surgery
James L. Murdock, Assistant in Surgery (on leave of absence)
Rodrigo Munoz, Assistant in Psychiatry

Keinosuke Nakagawa, Trainee (NIAMD) in Medicine (Renal)
Philip Needleman, American Heart Association Advanced Research Fellow in Pharmacology
David L. Nelson, Assistant in Surgery
Stanley R. Nelson, Special Fellow (NCI) in Pharmacology
John Beecher Nesbitt, Assistant in Medicine
Leonard N. Newmark, Trainee (NIAID) in Medicine (Infectious Diseases)
Robert G. Noble, Assistant in Surgery
Floyd Martin Nolle, Research Assistant in the Biomedical Computer Laboratory
John C. Norris, Assistant in Pediatrics

Merrill Clayton Oaks, Assistant in Ophthalmology
Juan Jose O'Flaherty, Fellow (NINDB) in Neurology
Toshio Omiishi, Research Fellow in Otolaryngology
Lawrence R. O'Leary, Assistant in Medical Psychology and Trainee (NIMH) in Clinical Psychology in Child Psychiatry
Miguel Ollada, Assistant in Medicine, Obstetrics-Gynecology, Pediatrics and Surgery (Rotating Intern)
Byron A. Olney, Assistant in Medicine
John William Olney, Research Assistant and Research Trainee (NIMH) in Psychiatry
Marilyn W. Olney, Assistant in Medicine
William C. Orr, Research Fellow and Trainee (NIMH) in Medical Psychology in Psychiatry
Thomas F. Ott, Assistant in Ophthalmology
Jesus F. Ovalle, American College of Physicians Kellogg Foundation Fellow in Medicine (Metabolism)
Victor W. Owen, Trainee (NLM) in Biomedical Librarianship

Reynaldo D. Pagtakhan, Missouri and St. Louis Heart Associations Research Fellow in Pediatrics
E. Prather Palmer, Jr., Assistant in Medicine
Kahman M. Palmer, Research Assistant in Radiology
Richard G. Pannbacker, Fellow (NINDB) in Pharmacology
Waldo E. Pardo, Assistant and Trainee (NIMH) in Child Psychiatry
John Curtis Parker, Trainee (NIAMD) in Medicine (Hematology)
Stuart Paster III, Assistant in Medicine
Gianfranco Patrizi, Children's Research Foundation Research Fellow in Pediatrics (Infectious Diseases) and Theron Catlin Fellow in Pediatrics
Leland F. Patterson, Assistant and Fellow (NINDB) in Neurology
Glenn T. Peake, Trainee (NIAMD) in Medicine (Metabolism)
Abelardo Pena-Ramos, Assistant and Trainee (NIMH) in Psychiatry
Vernon J. Perez, Research Fellow and Trainee (NIMH) in Medical Psychology in Psychiatry
Roland Pettit, Research Fellow in Surgery
Jerry M. Petty, Fellow in Neurological Surgery
Thomas P. Petzel, Research Assistant in Medical Psychology
Gordon W. Philpott, Assistant in Surgery
ASSISTANTS, FELLOWS, AND TRAINEES

Glen Dean Pittman, Assistant and Trainee (NIMH) in Psychiatry
Ruth Ann Pitts, Research Assistant in Sociology in Psychiatry
Gert Pokorny, Assistant in Obstetrics and Gynecology
Francisco Posadas Del Rio, Predoctoral Fellow (OAS) in Pharmacology
Somporn Pothinam, Assistant in Obstetrics and Gynecology
Thomas Prendergast, Jr., Assistant in Pediatrics
Thomas H. Price, Assistant in Medicine
Vincent J. Proskey, Trainee (NHI) in Medicine (Cardiology)
Daniel D. Pugh, Assistant and Trainee (NIMH) in Psychiatry
Morris W. Pulliam, Assistant in Surgery
Lilia Pundavela, Assistant in Pediatrics

Hany I. Qubain, Assistant in Pediatrics
Colleen M. Quick, Research Assistant in Psychiatry

Walter N. Rabhan, Fellow and Trainee (NIAMD) in Orthopedic Surgery
Edward F. Ragsdale, Assistant in Radiology
Ahluari Ramaiah, Postdoctoral Fellow in Pharmacology
Constance Ramsey, Assistant in Medicine
Harold L. Reams, Assistant in Otolaryngology
Lester T. Reese, Assistant in Medicine
Theodore Reich, Assistant in Psychiatry
David Martin Reisler, Assistant and Fellow (NINDB) in Neurology
David D. Rendleman, Assistant in Medicine
Emilio Torres Reyes, Assistant in Radiology
Jacqueline A. Reynolds, Research Assistant in Microbiology
Thomas F. Richardson, Assistant and Trainee (NIMH) in Psychiatry
Solomon L. Riley, Jr., Assistant in Pathology and Trainee (NICMS) in Experimental Pathology
Bernard A. Kineberg, Assistant in Orthopedic Surgery
Frances C. Ritzinger, Assistant in Medical Psychology and Trainee (NIMH) in Clinical Psychiatry
Justine T. Roberts, Trainee (NLM) in Biomedical Librarianship
Charles L. Robertson, Assistant in Medicine
Alan M. Rolson, Trainee (NIAMD) in Medicine (Renal)
Richard Robly, Fellow in Ophthalmology
Malcolm R. Rodgers, Assistant in Medicine
Hector A. Rodriguez, Research Assistant in Surgical Pathology
Harry M. Rogers, Assistant in Surgery
George F. Roggensack, Assistant in Medicine
Raymond Rondez, Research Assistant in Pathology
Juan Rosat, Assistant in Pathology
David J. Rosen, Assistant in Surgery (on leave of absence)
Jack Rosenberg, Assistant in Medicine, Obstetrics and Gynecology, Pediatrics and Surgery (Rotating Intern)
Michael G. Rosenfeld, Assistant in Medicine
Grace Link Rosenquist, Trainee (NIAID) in Microbiology
Carl M. Robainen, U.S.P.H.S. Postdoctoral Fellow in Pharmacology
Frank E. Ruch, Trainee (DGMS) in Physiology
Michael Barry Rumelt, Assistant in Medicine
William E. Rutherford, Assistant in Medicine
ASSISTANTS, FELLOWS, AND TRAINEES

Shabbir Safdar, Assistant in Medicine
Marcel Saghir, Assistant in Psychiatry
Jagneswar Saha, Research Assistant in Medicine
Chester Y. Sakura, Jr., Assistant in Surgery
Tadashi Sakurai, Trainee (NIAMD) in Medicine (Metabolism)
Andrew J. Saladino, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Abelardo B. Sanchez, Assistant and Fellow (NINDB) in Neurology
Rustico Santos, Assistant in Medicine
William F. Sasser, Jr., Fellow in Thoracic and Cardiovascular Surgery
Helmut F. G. Schellhas, Assistant in Obstetrics and Gynecology
Robert William Schmidt, Assistant in Medicine
George R. Schoedinger III, Assistant in Orthopedic Surgery
Adolph Schonder, Fellow in Ophthalmology
Demoy W. Schulz, Research Assistant in Pharmacology
Audrey A. Scott, Research Assistant in Pharmacology
Karen Sedgewick, Predoctoral Fellow (NSF) in Biological Chemistry
Jo Weinsbach Seltzer, Predoctoral Fellow and Trainee (NIGMS) in Pharmacology
Fernando Sena-Esteves, NATO Postdoctoral Fellow in Pharmacology
Audrey G. Senturia, Research Assistant in Child Psychiatry
Prasong Serirat, Fellow in Medicine (Hypertension)
Hugo Serrano, Assistant in Orthopedic Surgery
Donald Gordon Sessions, Assistant and Fellow (NINDB) in Otolaryngology
James William Shafer, Assistant in Medicine
Gerald L. Shaikun, Assistant in Radiology
Howard S. Shapiro, Trainee (NIAMD) in Medicine (Renal)
Marilyn Shapiro, Assistant in Psychiatric Social Work in Child Psychiatry
Mitchell Shapiro, Fellow in Ophthalmology
Lawrence A. Sherman, Trainee (NIAMD) in Medicine (Enzymology)
William M. Sherman, Assistant in Medicine
Hsin-Chin Shih, Assistant in Pediatrics
Stephen J. Shochat, Assistant in Surgery
Eli Ronald Shuter, Special Postdoctoral Fellow (NINDB) in Psychiatry
John K. Sigler, Jr., Assistant in Surgery
Lynn F. Silberman, Assistant in Medicine
David F. Silbert, American Cancer Society Postdoctoral Fellow in Biological Chemistry
Shirley Wang Silbert, Assistant in Pathology and Trainee (NICMS) in Experimental Pathology
Donald R. Silverman, Trainee (NIAMD) in Medicine (Renal)
Graciano Sisson, Jr., Assistant in Surgery
Jay W. Smith, Assistant in Medicine
Kirby L. Smith, Assistant in Medicine
Roger R. Smith, Assistant in Surgery (on leave of absence)
Robert J. Sokol, Assistant in Obstetrics and Gynecology
Sylvia Jane Spencer, Research Assistant in Psychiatry
Joel Mark Spiro, Trainee (NIAMD) in Medicine (Dermatology)
Alan R. Spivack, Assistant in Medicine
Michael D. Sprinkle, Trainee (NLM) in Biomedical Librarianship
Laxmi S. Srivastava, Trainee (NIAMD) in Medicine (Metabolism)
James Earl Standefer, Fellow (NINDB) in Ophthalmology
Arthur Harold Stein, Assistant in Medicine
Lawrence S. Steinberg, Assistant in Pathology

165
ASSISTANTS, FELLOWS, AND TRAINEES

Neil G. Steinhoff, Assistant in Surgery
Walter D. Stevenson, Assistant in Medicine
Gary K. Stewart, Assistant in Surgery (on leave of absence)
Barry S. Stoler, Assistant in Medicine
Rebecca K. Studer, Research Assistant in Radiology
John W. Studt, Trainee (NIGMS) in Physiology and Biophysics
Gloria Sturnfelds, Research Fellow and Trainee (NIMH) in Medical Psychology in Psychiatry
Bernard Sweet, Trainee (NIAMD) in Medicine (Enzymology)

Yasuro Takahashi, Research Fellow in Medicine (Metabolism)
Satoru Takenouchi, Research Fellow in Otolaryngology
Bruce A. Tall, Assistant and Clinical Fellow in Genitourinary Surgery
Vasanthkumar L. Tanna, Assistant in Psychiatry
Shoji J. Tateishi, Assistant in Pediatrics
Stanley Tenenbaum, Assistant in Medicine, Obstetrics and Gynecology, Pediatrics and Surgery
(Rotating Intern)
Howard Tessler, Fellow in Ophthalmology
Charlotte A. Thomas, Research Assistant in Pharmacology
Geoffrey F. Thompson, Research Assistant in Psychiatry
M. Bryant Thompson, Assistant in Obstetrics and Gynecology
Jon Paul Tierney, Fellow in Ophthalmology (on leave of absence)
Roosevelt Tillman, Trainee (NIGMS) in Experimental Pathology
Terry Owens Tos, Assistant in Pediatrics
Richard T. Trackler, Assistant in Radiology
Walter Leo Trudeau, Trainee (NIAMD) in Medicine (Gastroenterology)
Arthur Tuch, Assistant in Medicine
John Ross Turtle, Fellow in Medicine (Metabolism)

N. Udomponsanontha, Assistant in Psychiatry
Richard F. Ulrich, Assistant in Medicine (on leave of absence)
Tokuji Unno, Research Fellow in Otolaryngology

John C. Van Gilder, Assistant in Neurological Surgery
Elizabeth S. Van Patten, Research Assistant in the Biomedical Computer Laboratory
Lino Vasquez, Assistant in Obstetrics and Gynecology
Enrique Velez-Garcia, Trainee (NIAMD) in Medicine (Hematology)
David Velten, Research Assistant in the Biomedical Computer Laboratory
Lucio F. Villaca, Assistant and Trainee (NIMH) in Psychiatry
Edward W. Voss, Jr., U.S.P.H.S. Research Fellow in Microbiology

William H. Wagner, Jr., Assistant in Obstetrics and Gynecology
Bonnie B. Wallbran, Research Assistant in Social Psychiatry
Andrew W. Walker, Fellow in Plastic Surgery
Wesley C. Walker, Assistant in Genitourinary Surgery
Charles H. Wallas, Assistant in Medicine
Paul F. Wallin, Assistant in Medicine, Obstetrics and Gynecology, Pediatrics and Surgery
(Rotating Intern)

Stephen Reeves Waltman, Assistant in Ophthalmology
Walter A. Ward, Jr., U.S.P.H.S. Fellow in Otolaryngology
Marvin Weber, Assistant and Fellow (NINDB) in Neurology
Irene Yi-Lien Wei, Research Assistant in Biochemistry in Psychiatry
Warren A. Weinberg, Assistant and Special Fellow (NINDB) in Neurology
Ronald M. Weintraub, Assistant in Surgery (on leave of absence)
Landy Suzanne Weis, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Peter Weissman, Assistant in Medicine
Joseph S. Weycer, Assistant in Otolaryngology
Bruce L. White, Assistant in Surgery
Eugene White, Assistant in Pediatrics
Audre Wiksell, U.S.P.H.S. Intermediate Predoctoral Fellow in Biological Chemistry
Allan S. Wilensky, Assistant in Medicine
Charles H. Williams, Assistant in Radiology
F. Robert Williams, Trainee (NIAID) in Microbiology
Gary R. Wilson, Research Fellow and Trainee (NIMH) in Medical Psychology in Psychiatry
Morris F. Wise, Assistant and Clinical Fellow in Genitourinary Surgery
Marlys Hearst Witte, Clinical Fellow in Surgery
Allen P. Wolff, Assistant in Otolaryngology
Fred Marshall Wood, Assistant in Orthopedic Surgery
William G. Wood, Assistant in Pathology and Trainee (NIGMS) in Experimental Pathology
Sharon Lynn Woodruff, Assistant and Fellow (NINDB) in Neurology
Roy R. Wright, Assistant and Fellow (NINDB) in Neurology
Lorraine R. Wyman, Trainee (NIAID) in Microbiology

Anthony James Yonkers, Assistant and Fellow (NINDB) in Otolaryngology

Robert J. Zappia, Fellow in Ophthalmology
# INDEX OF STAFF MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aach, Richard D.</td>
<td>64</td>
</tr>
<tr>
<td>Abel, Charles C.</td>
<td>67</td>
</tr>
<tr>
<td>Abel, Oliver III</td>
<td>67</td>
</tr>
<tr>
<td>Abrams, Morris</td>
<td>122</td>
</tr>
<tr>
<td>Acker, Harry L.</td>
<td>106</td>
</tr>
<tr>
<td>Ackerman, Lauren V.</td>
<td>91</td>
</tr>
<tr>
<td>Adler, Bernad</td>
<td>88</td>
</tr>
<tr>
<td>Aff, Helen M.</td>
<td>96</td>
</tr>
<tr>
<td>Agress, Harry</td>
<td>67</td>
</tr>
<tr>
<td>Ahlvin, Robert C.</td>
<td>92</td>
</tr>
<tr>
<td>Aitken, Louis F.</td>
<td>67</td>
</tr>
<tr>
<td>Aker, Unum T.</td>
<td>64</td>
</tr>
<tr>
<td>Alberts, Alfred W.</td>
<td>60</td>
</tr>
<tr>
<td>Aldridge, Gerald</td>
<td>136</td>
</tr>
<tr>
<td>Alex, Morris</td>
<td>67</td>
</tr>
<tr>
<td>Alexander, France</td>
<td>64</td>
</tr>
<tr>
<td>Alexander, Harry Louis</td>
<td>64</td>
</tr>
<tr>
<td>Allen, Hollis</td>
<td>136</td>
</tr>
<tr>
<td>Allen, Hubert L.</td>
<td>81</td>
</tr>
<tr>
<td>Allen, Marlys K.</td>
<td>112, 134</td>
</tr>
<tr>
<td>Allen, Willard Myron</td>
<td>5, 6, 7, 80</td>
</tr>
<tr>
<td>Alvarex, Luis</td>
<td>92</td>
</tr>
<tr>
<td>Alvis, Bennett Young</td>
<td>85</td>
</tr>
<tr>
<td>Alvis, Edmund B.</td>
<td>85</td>
</tr>
<tr>
<td>Anderson, John M.</td>
<td>111</td>
</tr>
<tr>
<td>Anschutz, Robert</td>
<td>124</td>
</tr>
<tr>
<td>Anthony, E. James</td>
<td>109, 134</td>
</tr>
<tr>
<td>Apirion, David</td>
<td>74</td>
</tr>
<tr>
<td>Archer, Ellen G.</td>
<td>117</td>
</tr>
<tr>
<td>Arneson, A. Norman</td>
<td>80, 117</td>
</tr>
<tr>
<td>Arnot, John P.</td>
<td>125</td>
</tr>
<tr>
<td>Aronson, Natalie</td>
<td>96</td>
</tr>
<tr>
<td>Avioli, Louis V.</td>
<td>64</td>
</tr>
<tr>
<td>Awai, Michiyasu</td>
<td>67</td>
</tr>
<tr>
<td>Ayata, Sedat Mehmet</td>
<td>123</td>
</tr>
<tr>
<td>Bachmann, Fedor</td>
<td>64</td>
</tr>
<tr>
<td>Badger, Virginia M.</td>
<td>123</td>
</tr>
<tr>
<td>Bagby, James W.</td>
<td>67</td>
</tr>
<tr>
<td>Ballinger, Walter H.</td>
<td>5, 7, 121</td>
</tr>
<tr>
<td>Banaszak, Leonard J.</td>
<td>60, 102</td>
</tr>
<tr>
<td>Barclay, Ramnik G.</td>
<td>110</td>
</tr>
<tr>
<td>Barker, Edward T.</td>
<td>96</td>
</tr>
<tr>
<td>Barrios-Granguillhome, Francisco</td>
<td>92</td>
</tr>
<tr>
<td>Barrow, Jack</td>
<td>67</td>
</tr>
<tr>
<td>Bartlett, Robert Wilson</td>
<td>122</td>
</tr>
<tr>
<td>Bartsch, Peter</td>
<td>81</td>
</tr>
<tr>
<td>Bass, Libby G.</td>
<td>111</td>
</tr>
<tr>
<td>Bauer, John D.</td>
<td>92</td>
</tr>
<tr>
<td>Bauer, Joseph A.</td>
<td>97</td>
</tr>
<tr>
<td>Bauer, Walter C.</td>
<td>5, 91</td>
</tr>
<tr>
<td>Baumgarten, Walter M., Jr.</td>
<td>67</td>
</tr>
<tr>
<td>Beam, Sim F.</td>
<td>67</td>
</tr>
<tr>
<td>Beare, J. Byron</td>
<td>124</td>
</tr>
<tr>
<td>Becker, William G.</td>
<td>69</td>
</tr>
<tr>
<td>Becker, Bernard</td>
<td>5, 7, 84</td>
</tr>
<tr>
<td>Becker, Stanley</td>
<td>85</td>
</tr>
<tr>
<td>Bedell, William H.</td>
<td>136</td>
</tr>
<tr>
<td>Behrer, M. Renssen</td>
<td>96</td>
</tr>
<tr>
<td>Belew, Joe E.</td>
<td>81</td>
</tr>
<tr>
<td>Belinson, Louis</td>
<td>136</td>
</tr>
<tr>
<td>Belkin, Paul V.</td>
<td>124</td>
</tr>
<tr>
<td>Bell, Robert M.</td>
<td>111</td>
</tr>
<tr>
<td>Benage, Clarence M.</td>
<td>125</td>
</tr>
<tr>
<td>Berg, Leonard</td>
<td>77</td>
</tr>
<tr>
<td>Berger, Louetta</td>
<td>111, 134</td>
</tr>
<tr>
<td>Bergmann, John F.</td>
<td>111</td>
</tr>
<tr>
<td>Bergner, Grace E.</td>
<td>65</td>
</tr>
<tr>
<td>Berman, Benjamin B.</td>
<td>97</td>
</tr>
<tr>
<td>Berman, William</td>
<td>80</td>
</tr>
<tr>
<td>Berry, John W.</td>
<td>65</td>
</tr>
<tr>
<td>Biller, Hugh</td>
<td>88</td>
</tr>
<tr>
<td>Binder, Morton A.</td>
<td>67</td>
</tr>
<tr>
<td>Birenbaum, Aaron</td>
<td>67</td>
</tr>
<tr>
<td>Bishop, Ethel Ronzoni</td>
<td>77</td>
</tr>
<tr>
<td>Bishop, George Holman</td>
<td>77</td>
</tr>
<tr>
<td>Bisno, Daniel</td>
<td>85</td>
</tr>
<tr>
<td>Black, William C.</td>
<td>92</td>
</tr>
<tr>
<td>Blackman, Nathan</td>
<td>110</td>
</tr>
<tr>
<td>Blair, Vivay P., Jr.</td>
<td>124</td>
</tr>
<tr>
<td>Bleiseh, Virgil R.</td>
<td>91</td>
</tr>
<tr>
<td>Bloomberg, Gordon R.</td>
<td>97</td>
</tr>
<tr>
<td>Bohman, Isabelle M.</td>
<td>139</td>
</tr>
<tr>
<td>Boles, Clifford Read</td>
<td>97</td>
</tr>
<tr>
<td>Bond, Leslie F.</td>
<td>125</td>
</tr>
<tr>
<td>Bondurant, Bryce H.</td>
<td>81</td>
</tr>
<tr>
<td>Boniuk, Isaac</td>
<td>85</td>
</tr>
<tr>
<td>Borowsky, Benjamin A.</td>
<td>67</td>
</tr>
<tr>
<td>Bortnick, Arthur R.</td>
<td>81</td>
</tr>
<tr>
<td>Bourgoignie, Jacques</td>
<td>66</td>
</tr>
<tr>
<td>Boulenger, Albert</td>
<td>136</td>
</tr>
<tr>
<td>Bowen, Ted</td>
<td>136</td>
</tr>
<tr>
<td>Bowles, George Allen</td>
<td>136</td>
</tr>
<tr>
<td>Bowles, William T.</td>
<td>122</td>
</tr>
<tr>
<td>Bradley, Anna K.</td>
<td>110</td>
</tr>
<tr>
<td>Bradley, Frank R.</td>
<td>136</td>
</tr>
<tr>
<td>Bradley, Richard V.</td>
<td>125</td>
</tr>
<tr>
<td>Bresnick, George H.</td>
<td>85</td>
</tr>
<tr>
<td>Brewer, Ben R.</td>
<td>136</td>
</tr>
<tr>
<td>Bricker, Eugene Myron</td>
<td>121</td>
</tr>
</tbody>
</table>
INDEX OF STAFF MEMBERS

Bricker, Neal S., 5, 63
Brilliant, Patricia J., 110
Brinker, Ray A., 117
Brodmann, Estelle, 6, 8, 57
Brookes, Robert D., 110
Brooks, John E., 77
Brooks, Phillips M., 116
Brown, Barbara Illingworth, 60
Brown, David H., 8, 59
Brown, Elmer B., Jr., 64
Brown, James Barrett, 121
Brown, Oren L., 88
Brugger, Thomas C., 109, 134
Bryan, James Howard, 85
Bryan, Marian Pfeingsten, 88
Bryan, William T. K., 88
Burch, Helen B., 100
Burford, Thomas H., 121
Burstein, Robert, 80
Burton, Robert M., 100
Busch, Anthony K., 110
Butcher, Harvey R., 5, 6, 7, 121, 133
Byars, Louis T., 7, 121
Caldwell, Clyde, 136
Calodney, Martin, 97
Calvin, Lincoln B., 110
Camel, Greta, 66
Camel, H. Marvin, 80
Canaan, Samuel A., Jr., 85
Cannady, Edward W., 67
Cannon, Marguerite, 110
Carlin, M. Richard, 124
Carr, Archie D., 77
Carr, Charles, 88
Cary, John M., 67
Casebier, Gabrielle, 110, 134
Cass, Loreta, 109, 134
Catanzaro, Francis Joseph, 65
Cate, Thomas R., 64
Chaplin, Hugh, Jr., 63, 105, 119
Charles, Benjamin H., 67
Charles, Cecil Marvin, 57, 67
Chermes, Augustin A., 110
Chieffi, Margaret, 67
Chung, Chai Hong, 92
Cibis, Lisa M., 86
Clare, Margaret H., 77
Clark, Sam L., Jr., 5, 6, 57
Clayton, Paula J., 109
Claywell, James, 136
Clifton, John S., 117
Cohen, Lawrence A., 77
Coburn, Richmond C., 136
Cohen, Adolph Irwin, 57, 85
Cohen, Robert S., 81
Cole, William R., 122
Coleman, William G., 69
Colom, James, 136
Combs, J. J., Jr., 66
Comens, Phillip, 67
Cone, Alfred J., 88
Cone, William, 111
Conrad, Adolph H., Jr., 65
Conrad, Marshall B., 122
Constant, Marguerite A., 84
Constantinides, Paris, 91
Cook, Doris, 136, 140
Cook, Galen B., 123
Copher, Glover H., 121
Copp, Ralph, Jr., 67
Cordonnier, Justin J., 121
Cori, Carl F., 59
Costello, Cyril J., 122
Costen, William S., 124
Cotlier, Edward, 85
Courtney, John, 75
Covey, Walter Page, 57, 87, 132
Cowdry, Edmund Vincent, 57
Cowdry, Edmund V., Jr., 111
Cox, Jerome, Jr., 102, 131, 132
Cox, Mary E., 111
Cox, Robert D., 98
Coxe, William S., 122
Cozart, Duane E., 67
Craig, Alan G., 110
Crawford, Charles, Jr., 98
Crawford, Katherine Jean, 125
Crawford, Libby, 138
Crege, Clarence Harrison, Jr., 122
Cricione, James R., 125
Croninger, Adele B., 111
Csapo, Arpad I., 80
Cutler, Harold M., 88
Dalton, Arthur R., 124
Dammkoehler, Richard A., 131
Danforth, William H., 5, 7, 63
Dankner, Arnold, 67
Datuin, Alexandro M., 111

169
Daughaday, William Hamilton, 5, 6, 63
Davidson, John D., 67
Davidson, Morris, 88
Davis, David O., 117
Davis, Hallowell, 88, 102, 132
Day, Anthony B., 69
Deakin, Rogers, 122
Dean, L. Wallace, Jr., 88
de Guharett, Taisija, 102
Deitchman, Robert Bailey, 110
De Jesus, Alberto, 123
de Jesus, Alberto, 123
Deutch, Max, 96
Dickey, F. G., 137
Dickler, Donald J., 122
Dickls, Adalbert, 137
Dietzler, David N., 96, 100
Dillard, Burl M., 123
Dodd, Robert B., 7, 121
Dodge, Philip R., 5, 7, 77, 96, 132
Donke, Herbert R., 63, 105
Donaldson, Robert C., 123
Donegan, William L., 123
Dorfman, Ronald F., 92
Drake, Truman Guthred, 65
Drews, Robert C., 85
Drysdale, George R., 5, 60
Dubach, Ann Reubenia, 65
Dudan, Charles W., 65
Dumler, Robert, 81
Duffy, Francis G., 124
Duggins, Oliver H., 57
Duling, Gerald J., 98

Eagleton, Mark D., Jr., 117
Eaton, R. Philip, 66
Eckert, Clarence, 124
Edwards, Joseph C., 65
Efstathianos, Kimon, 111
Eichling, John O., 117
Eigner, Joseph, 74
Eisen, Herman, 5, 74
Eisenstein, Albert B., 64, 105
Eldredge, Donald H., 88, 132
Eliasson, Sven G., 77
Eller, C. Howe, 105
Ellis, Calvin C., 67
Elson, Julius, 67
Enders, Allen C., 57
Engman, Martin F., Jr., 69

Enoch, Jay M., 85, 132
Erlanger, Margaret Williams, 69
Esslinger, Arthur T., 80
Evert, Donna L., 135
Eyermann, Charles H., 66
Ezekiel, Rivka, 112, 135

Fallon, Richard H., 125
Feldaker, Mauri, 67
Ferguson, Thomas B., 122
Finger, Donald H., 67
Fingert, Hyman H., 110
Fish, Virgil Otto, 124
Fjeld, Stanton P., 109
Flance, I. J., 68
Fleischman, Julian B., 74, 105
Fleishman, Alfred, 68
Fleischer, Anthony P., 64
Fleischer, Norma A., 64
Ford, Ada Wells, 138
Ford, Lee T., Jr., 124
Forsyth, Bruce Todd, 68
Frank, Robert E., 7, 136
Franklin, Lois E., 134
Frech, Robert S., 118
Freedman, Ruth Schreiber, 85
Freeman, David Merrill, 85
Freiman, S. Michael, 61
Frieden, Carl, 5, 60
Friedman, Bernard, 66
Friedman, Ira J., 98
Friedman, Robert H., 97
Friedrich, Ernst R., 80
Fryer, Minot P., 121
Fuleihan, Farid M., 123
Funderburg, Rosemary F., 134
Furlow, Leonard Thompson, 121

Gale, Arthur H., 68
Gall, Ira Clyde, 81
Garfinkel, Bernard T., 66
Garfinkel, Lester S., 66
Gashehr, Daniel, 8
Gass, Herbert H., 64
Gaston, Lamon W., 64
Gay, Andrew J., 77, 85
Gearhart, Wilbur H., 111
Gee, David, 136
Geller, David M., 100
Gentsch, Kenneth W., 68
INDEX OF STAFF MEMBERS

Gieselman, Ralph V., 66
Gildea, Edwin Francis, 109
Gildea, Margaret C.-L., 109
Gilson, Arthur S., Jr., 102
Gilson, Joseph M., 118
Gilster, John, 96
Gitt, Joseph J., 77
Glaser, Luis, 6, 60
Glass, Robert L., 125
Glassberg, Bertram Y., 68
Glass, Robert L., 125
Glaser, Luis, 6, 60
Glassberg, Bertram Y., 68
Glick, Harry N., 88
Goell, Robert S., 81
Golden, Janet, 111
Goldman, Alfred, 64
Goldman, Arnold M., 68
Goldman, Melvin Leonard, 66
Goldring, David, 96, 132
Goldring, Sidney, 121
Goldstein, Marcia Allen, 123
Goldstein, Milton N., 57
Goldstein, Robert, 88, 111
Gollub, Samuel, 97
Grabau, Gene, 97
Graham, Helen Tredway, 100
Grant, John M., 68
Grant, Neville, 68
Grant, Samuel B., 66
Grayson, Leonard D., 69
Greco, Joseph T., 137
Greditzer, Arthur S., 111
Green, William L., 64
Greenman, Marshall B., 7, 97
Grisham, Joe W., 6, 91
Grodzki, Walter J., 96
Gromnjar, Mary, 111
Gronau, Axel R., 68
Groner, Frank S., 137
Grove, Louise E., 141
Guilick, Charles R., 80
Guzman, Samuel B., 5, 7, 8, 64, 109
Halpern, Lawrence K., 66
Hammer, Corinne Reeder, 69
Hammes, Roman E., 97
Hammond, David T., 68
Hampton, Oscar Perry, Jr., 123
Hampton, Stanley Forrest, 66
Hankin, Norman, 97
Hardin, William B., 77
Hardy, Guerdan, 86
Harford, Carl Gayler, 63
Harpenau, Carroll W., 111
Harper, Fleming B., 125
Harris, A. Basil, 123
Harrison, Lee B., 68
Harrison, Stanley Leonard, 96
Hartmann, Alexis F., Jr., 96
Hartnett, Anna E., 111, 134
Hartroft, Phyllis M., 88
Hartstein, Jack, 85
Harvey, James, 137
Harwell, James L., 97
Hatfalvi, Bela L., 122
Hawkins, Lee W., 68
Hayden, Dean, 137, 141
Hayes, John, 137
Hayward, Samuel J., 82
Healy, Lucille, 110
Heifetz, Carl J., 123
Heins, James N., 66
Helmreich, Ernst, 5, 60
Hendricks, Mildred, 105
Henry, Joyce L., 75
Henry, William, 137
Hepner, James O., 136
Herjanic, Marijan, 110
Hernandez, Antonio, Jr., 96
Hershey, Falls B., 122
Hertel, Ronald C., 124
Herweg, John C., 5, 6, 8, 96
Herzog, Godofredo M., 81
Hickok, Robert, 139
Hicks, Robert S., 111
Hildreth, Howard Rommel, 85
Hironimus, John Edward, 66
Hirsh, Ira J., 88
Hixon, Barbara, 105
Hobbs, John E., 80
Hockstra, Lilly, 7, 137
Hofstatter, Leopold, 110

171
INDEX OF STAFF MEMBERS

Hofstatter, Lilli, 111
Holemon, Eugene, 111
Holland, Joseph, 137
Hollozy, John O., 64, 105, 119
Holloway, Robert B., 123
Holscher, Edward C., 124
Holt, Earl P., Jr., 124
Holz, Sumner, 117
Holtz, John O., 117
Holtzcher, George, 88
Horner, John L., 68
Hosada, Saichi, 132
House, Roy, 137
Hoyt, Robert S., 137
Hsu, Priscilla L., 112, 135
Huck, Richard F., 68
Hudgens, Richard W., 5, 8, 110
Hughes, Arthur L., 117
Hult, Bernard, 68
Hunter, Francis Edmund, Jr., 100
Hunter, Robert, 137
Hurd, James R., 123
Hurley, Robert E., 118
Hutchins, James Herbert, Jr., 66
Hutto, Herman, 80
Jacoby, Louise, 8
Jacobs, Charles C., 88
Jacob, Frederick August, 96
Jacobsohn, Warren Z., 68
Jaeger, D. LaVonne, 139
Jamison, Rex L., 65
Jarett, Leonard, 66, 92
Jaudon, Joseph C., 96
Jean, J. Ted, 68
Jick, Sidney, 68
Johnson, Mary Chapman, 69
Jones, Andrew B., 77
Jones, Dorothy Jeanette, 96
Joseph, Harold J., 68
Juergens, William G., 68
Kaahana, Boaz, 134
Kahn, Lawrence L., 96
Kaiser, Helen, 8
Kaplan, Alex H., 110
Kaplan, Samuel E., 65
Kardesch, Milton, 68
Karl, Irene E., 67
Karl, Michael M., 64
Karsh, Robert S., 68
Katz, M. Richard, 123
Kaufman, Robert Lionel, 66
Kawasaki, Masashi, 88
Kayes, Jack, 85
Keister, Hugh F. S., 123
Keller, Maurice J., 97
Kelley, Robert W., 68
Kempson, Richard L., 92
Kendall, Barbara S., 112
Kendis, Joseph B., 111
Kennel, David Epperson, 6, 74
Kenney, Eleanor T., 112, 134
Kerr, David N., 68
Kessler, Sheldon, 97
Kheim, Teofih, 67, 132
Kiel, Cecilia, 137
Kilgore, Bassett, 118
Kilo, Charles, 68
King, Lucy J., 110
King, M. Kenton, 5, 7, 8, 63, 105
Kingsland, Robert C., 66
Kinsky, Stephen C., 100
Kipnis, David M., 5, 63
Kirk, John Esben, 63, 132
Kirstein, Melvin B., 68
Kissane, John, 91
Klaff, Daniel D., 68
Klahr, Saul, 65
Klein, Saul, 124
Klinge, Frederick W., 102, 125
Klinkerfuss, George, 77
Klippel, Allen P., 125
Knoke, Henry L., 97
Knowles, Robert R., 111
Knowlton, Norman P., 66
Kobayashi, George, 65, 75
Koch, Robert E., 68
Kochavi, Estelle, 106
Kochler, H. Ruben, 117
Koerner, Kenneth Albert, 97
Kolker, Allan E., 85
Konik, Nadya, 92
Kopp, Jules H., 125
Korenblat, Phillip, 68
Kornfeld, Recalind H., 76
Kornfeld, Stuart A., 65
Kowert, Edward H., 111
Kraemer, Justin F., 81
Kraus, Frederick T., 92
Krause, G. Lynn, Jr., 124
Kuhlman, Robert E., 124
<table>
<thead>
<tr>
<th>Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuhn, Charles</td>
<td>92</td>
</tr>
<tr>
<td>Kuttner, Marian</td>
<td>97</td>
</tr>
<tr>
<td>Kyaw, Myo</td>
<td>118</td>
</tr>
<tr>
<td>Laatsch, Robert H.</td>
<td>57</td>
</tr>
<tr>
<td>Lacy, Paul E.</td>
<td>5, 7, 91, 132</td>
</tr>
<tr>
<td>Lake, Lorraine F.</td>
<td>57, 119, 139</td>
</tr>
<tr>
<td>Lamb, Wanda M.</td>
<td>110</td>
</tr>
<tr>
<td>Landau, William M.</td>
<td>5, 6, 7, 77, 132</td>
</tr>
<tr>
<td>Lane, Clinton Welch</td>
<td>64</td>
</tr>
<tr>
<td>Lane, Daniel K.</td>
<td>68</td>
</tr>
<tr>
<td>Lang, Stanley</td>
<td>102</td>
</tr>
<tr>
<td>Lansche, W. Edward</td>
<td>124</td>
</tr>
<tr>
<td>Larimore, Joseph W.</td>
<td>64</td>
</tr>
<tr>
<td>Larson, Paul U.</td>
<td>68</td>
</tr>
<tr>
<td>Lee, Sook Wen</td>
<td>69</td>
</tr>
<tr>
<td>Lefton, Robert E.</td>
<td>135</td>
</tr>
<tr>
<td>Lesosew, Helen E.</td>
<td>111, 134</td>
</tr>
<tr>
<td>Levin, Marvin</td>
<td>66</td>
</tr>
<tr>
<td>Levitt, Joseph</td>
<td>68</td>
</tr>
<tr>
<td>Levy, Jerome F.</td>
<td>124</td>
</tr>
<tr>
<td>Levy, Irwin</td>
<td>6, 77</td>
</tr>
<tr>
<td>Levy, Morton A.</td>
<td>66</td>
</tr>
<tr>
<td>Lewis, John B.</td>
<td>111, 134</td>
</tr>
<tr>
<td>Leydig, Stanley M.</td>
<td>124</td>
</tr>
<tr>
<td>Liang, Howard S.</td>
<td>124</td>
</tr>
<tr>
<td>Lieberman, David M.</td>
<td>68</td>
</tr>
<tr>
<td>Lisee, Grover Bernard</td>
<td>81</td>
</tr>
<tr>
<td>Lilly, Douglas R.</td>
<td>68, 117</td>
</tr>
<tr>
<td>Lischer, Carl Edward</td>
<td>123</td>
</tr>
<tr>
<td>Little, J. Russell, Jr.</td>
<td>65, 75</td>
</tr>
<tr>
<td>Lloyd, Ted</td>
<td>137</td>
</tr>
<tr>
<td>Leoch, Virgil Jr.</td>
<td>7, 66, 92</td>
</tr>
<tr>
<td>Londe, Sol</td>
<td>97</td>
</tr>
<tr>
<td>London, Stanley L.</td>
<td>125</td>
</tr>
<tr>
<td>Lonergan, Warren M.</td>
<td>68</td>
</tr>
<tr>
<td>Long, Frank B., Jr.</td>
<td>60</td>
</tr>
<tr>
<td>Lonsway, Maurice J.</td>
<td>97</td>
</tr>
<tr>
<td>Lonsway, Maurice J., Jr.</td>
<td>97</td>
</tr>
<tr>
<td>Lottes, James Otto</td>
<td>123</td>
</tr>
<tr>
<td>Lowry, Carmelita</td>
<td>60</td>
</tr>
<tr>
<td>Lowry, Oliver Howe</td>
<td>5, 6, 100, 132</td>
</tr>
<tr>
<td>Lulowitz, Herbert</td>
<td>65</td>
</tr>
<tr>
<td>Lugo, Samuel</td>
<td>125</td>
</tr>
<tr>
<td>Lund, Robert Herulf</td>
<td>7, 125</td>
</tr>
<tr>
<td>Luten, Drew W.</td>
<td>64</td>
</tr>
<tr>
<td>Lyman, Edward H.</td>
<td>88</td>
</tr>
<tr>
<td>Lyss, Carl A.</td>
<td>68</td>
</tr>
<tr>
<td>Mackey, Eugene J.</td>
<td>137</td>
</tr>
<tr>
<td>MacBryde, Cyril M.</td>
<td>64</td>
</tr>
<tr>
<td>Madoc-Jones, Hywel</td>
<td>117</td>
</tr>
<tr>
<td>Magee, William E.</td>
<td>68</td>
</tr>
<tr>
<td>Majerus, Philip W.</td>
<td>60, 65</td>
</tr>
<tr>
<td>Malloy, Gerald</td>
<td>137</td>
</tr>
<tr>
<td>Marcus, Morris D.</td>
<td>66</td>
</tr>
<tr>
<td>Margolis, Richard</td>
<td>97</td>
</tr>
<tr>
<td>Mariz, Ida Kozak</td>
<td>69</td>
</tr>
<tr>
<td>Marovitz, William F.</td>
<td>57, 88</td>
</tr>
<tr>
<td>Marshall, Garland R.</td>
<td>60, 102</td>
</tr>
<tr>
<td>Martin, John Barlow</td>
<td>80</td>
</tr>
<tr>
<td>Martin, Ruth E.</td>
<td>96</td>
</tr>
<tr>
<td>Martz, John C.</td>
<td>97</td>
</tr>
<tr>
<td>Massie, Edward</td>
<td>64</td>
</tr>
<tr>
<td>Masters, William H.</td>
<td>80</td>
</tr>
<tr>
<td>Mathews, F. Scott</td>
<td>60, 102</td>
</tr>
<tr>
<td>Matschinsky, Franz M.</td>
<td>100</td>
</tr>
<tr>
<td>Matthews, Martha E.</td>
<td>138</td>
</tr>
<tr>
<td>Maughls, Sydney B.</td>
<td>110</td>
</tr>
<tr>
<td>Max, Paul F.</td>
<td>81</td>
</tr>
<tr>
<td>Maxwell, Richard W.</td>
<td>68</td>
</tr>
<tr>
<td>Maze, Laurence E.</td>
<td>80</td>
</tr>
<tr>
<td>McAfee, C. Alan</td>
<td>123</td>
</tr>
<tr>
<td>McAlister, William H.</td>
<td>117</td>
</tr>
<tr>
<td>McCarroll, H. Retlon</td>
<td>121</td>
</tr>
<tr>
<td>McCay, Sophia P.</td>
<td>111, 134</td>
</tr>
<tr>
<td>McClure, David</td>
<td>97</td>
</tr>
<tr>
<td>McClure, James N., Jr.</td>
<td>110</td>
</tr>
<tr>
<td>McDougald, David B., Jr.</td>
<td>5, 100, 132</td>
</tr>
<tr>
<td>McDowell, Frank</td>
<td>122</td>
</tr>
<tr>
<td>McGavran, Malcolm</td>
<td>92</td>
</tr>
<tr>
<td>McGeinnis, Manon</td>
<td>110, 134</td>
</tr>
<tr>
<td>McGuigan, James Edward</td>
<td>65</td>
</tr>
<tr>
<td>McIntosh, Elizabeth</td>
<td>137</td>
</tr>
<tr>
<td>McKee, Oliver A.</td>
<td>68</td>
</tr>
<tr>
<td>McKinney, Joe K.</td>
<td>111</td>
</tr>
<tr>
<td>McManus, John H.</td>
<td>111</td>
</tr>
<tr>
<td>McNalley, F. P.</td>
<td>80</td>
</tr>
<tr>
<td>McNalley, Michael</td>
<td>81</td>
</tr>
<tr>
<td>Meinberg, William H.</td>
<td>85</td>
</tr>
<tr>
<td>Mendelsohn, Robert S.</td>
<td>68</td>
</tr>
<tr>
<td>Mendelsohn, Roy M.</td>
<td>110, 134</td>
</tr>
<tr>
<td>Menendez, Manuel F.</td>
<td>92</td>
</tr>
<tr>
<td>Menton, David N.</td>
<td>57</td>
</tr>
<tr>
<td>Merrims, Theodore</td>
<td>81</td>
</tr>
<tr>
<td>Meyer, Jay</td>
<td>111</td>
</tr>
<tr>
<td>Meyer, John S.</td>
<td>92</td>
</tr>
<tr>
<td>Meyerhardt, Milton H.</td>
<td>80</td>
</tr>
<tr>
<td>Miøddelkamp, J. Neal</td>
<td>96</td>
</tr>
</tbody>
</table>

173
<table>
<thead>
<tr>
<th>Name</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midkiff, John L., Jr.</td>
<td>8</td>
</tr>
<tr>
<td>Milder, Benjamin</td>
<td>85</td>
</tr>
<tr>
<td>Mill, William B., Jr.</td>
<td>118</td>
</tr>
<tr>
<td>Miller, Dorothy L.</td>
<td>3</td>
</tr>
<tr>
<td>Miller, James R.</td>
<td>92</td>
</tr>
<tr>
<td>Miller, Robert N.</td>
<td>122</td>
</tr>
<tr>
<td>Minnich, Virginia</td>
<td>64</td>
</tr>
<tr>
<td>Mishkin, Marvin</td>
<td>124</td>
</tr>
<tr>
<td>Mobnar, Charles E.</td>
<td>102, 132</td>
</tr>
<tr>
<td>Montazee, Samad</td>
<td>81</td>
</tr>
<tr>
<td>Monat, Seymour</td>
<td>80</td>
</tr>
<tr>
<td>Montgomery, Austin F.</td>
<td>68</td>
</tr>
<tr>
<td>Moon, Thomas R.</td>
<td>77</td>
</tr>
<tr>
<td>Moor, William A.</td>
<td>86</td>
</tr>
<tr>
<td>Moore, Blake W.</td>
<td>109</td>
</tr>
<tr>
<td>Moore, Carl Vernon</td>
<td>5, 7, 63</td>
</tr>
<tr>
<td>Moore, Lawrence White, Jr.</td>
<td>69</td>
</tr>
<tr>
<td>Moore, Morris</td>
<td>66</td>
</tr>
<tr>
<td>Morgan, Harry C.</td>
<td>123</td>
</tr>
<tr>
<td>Morris, Kevin Charles</td>
<td>81</td>
</tr>
<tr>
<td>Morrison, Arlen E.</td>
<td>68</td>
</tr>
<tr>
<td>Morrison, Frank Andrew</td>
<td>81</td>
</tr>
<tr>
<td>Morrison, George R.</td>
<td>64, 105</td>
</tr>
<tr>
<td>Mortensen, Frede</td>
<td>68</td>
</tr>
<tr>
<td>Moses, Robert A.</td>
<td>84</td>
</tr>
<tr>
<td>Mowrer, Marie O.</td>
<td>110</td>
</tr>
<tr>
<td>Mueller, Florence</td>
<td>137</td>
</tr>
<tr>
<td>Mueller, Janilyn M.</td>
<td>105</td>
</tr>
<tr>
<td>Mueller, Robert J.</td>
<td>77</td>
</tr>
<tr>
<td>Mullins, John E.</td>
<td>69</td>
</tr>
<tr>
<td>Murphy, George E.</td>
<td>109</td>
</tr>
<tr>
<td>Muschany, Norman K.</td>
<td>80</td>
</tr>
<tr>
<td>Narahara, Hiromichi T.</td>
<td>60</td>
</tr>
<tr>
<td>Nash, Helen</td>
<td>97</td>
</tr>
<tr>
<td>Nash, Homer</td>
<td>97</td>
</tr>
<tr>
<td>Nathan, Lester J.</td>
<td>125</td>
</tr>
<tr>
<td>Neavles, Jackson C.</td>
<td>112</td>
</tr>
<tr>
<td>Needlenman, Phillip</td>
<td>109</td>
</tr>
<tr>
<td>Nelson, J. Roger</td>
<td>66</td>
</tr>
<tr>
<td>Nelson, Margaret S.</td>
<td>138</td>
</tr>
<tr>
<td>Newman, Matthew</td>
<td>85</td>
</tr>
<tr>
<td>Newport, Gerald</td>
<td>81</td>
</tr>
<tr>
<td>Newton, Gordon</td>
<td>68</td>
</tr>
<tr>
<td>Newton, William T.</td>
<td>6, 122</td>
</tr>
<tr>
<td>Newton, W. Neal</td>
<td>97</td>
</tr>
<tr>
<td>Nickel, James F.</td>
<td>66</td>
</tr>
<tr>
<td>Niedorf, Saul</td>
<td>112, 134</td>
</tr>
<tr>
<td>Noah, Joseph W.</td>
<td>66</td>
</tr>
<tr>
<td>Ochs, Lamar H.</td>
<td>68</td>
</tr>
<tr>
<td>Ogura, Joseph H.</td>
<td>5, 7, 87</td>
</tr>
<tr>
<td>O'Keeffe, Joseph Damon</td>
<td>82</td>
</tr>
<tr>
<td>Okun, Edward</td>
<td>85</td>
</tr>
<tr>
<td>O'Leary, James Lee</td>
<td>5, 6, 7, 77, 132</td>
</tr>
<tr>
<td>Olin, Robert H.</td>
<td>112, 134</td>
</tr>
<tr>
<td>Oliver, G. Charles</td>
<td>65</td>
</tr>
<tr>
<td>Oliver, George A.</td>
<td>124</td>
</tr>
<tr>
<td>Olmsted, William H.</td>
<td>64</td>
</tr>
<tr>
<td>O'Neal, Lawrence W.</td>
<td>123</td>
</tr>
<tr>
<td>O'Neill, Patricia L.</td>
<td>109</td>
</tr>
<tr>
<td>Osterland, C. Kirk</td>
<td>65, 105</td>
</tr>
<tr>
<td>Owen, Robert F.</td>
<td>69</td>
</tr>
<tr>
<td>Ozols, Juris</td>
<td>60</td>
</tr>
<tr>
<td>Packman, Robert C.</td>
<td>69</td>
</tr>
<tr>
<td>Paine, Robert</td>
<td>66</td>
</tr>
<tr>
<td>Painter, Paul H.</td>
<td>96, 110, 134</td>
</tr>
<tr>
<td>Parker, Brent M.</td>
<td>64</td>
</tr>
<tr>
<td>Parker, Charles Ward</td>
<td>64</td>
</tr>
<tr>
<td>Parker, Mary L.</td>
<td>65, 96</td>
</tr>
<tr>
<td>Parker, William Bahlimann</td>
<td>8</td>
</tr>
<tr>
<td>Parsons, Patricia A.</td>
<td>96</td>
</tr>
<tr>
<td>Parsons, Richard</td>
<td>124</td>
</tr>
<tr>
<td>Passonneau, Janet V.</td>
<td>100</td>
</tr>
<tr>
<td>Payne, Meredith J.</td>
<td>125</td>
</tr>
<tr>
<td>Peden, James C., Jr.</td>
<td>8, 65, 105</td>
</tr>
<tr>
<td>Peden, Joseph C., Jr.</td>
<td>124</td>
</tr>
<tr>
<td>Pena-Ramos, Abelardo</td>
<td>111</td>
</tr>
<tr>
<td>Penick, Elizabeth C.</td>
<td>111</td>
</tr>
<tr>
<td>Penmoyer, James</td>
<td>80</td>
</tr>
<tr>
<td>Perez, Blanca M.</td>
<td>92</td>
</tr>
<tr>
<td>Perez, Carlos</td>
<td>117</td>
</tr>
<tr>
<td>Perez, Vernon J.</td>
<td>111</td>
</tr>
<tr>
<td>Perez-Mesa, Carlos</td>
<td>92</td>
</tr>
<tr>
<td>Perkoff, Gerald T.</td>
<td>5, 63</td>
</tr>
<tr>
<td>Perry, Betty F.</td>
<td>69</td>
</tr>
<tr>
<td>Perry, Horace Mitchell</td>
<td>64</td>
</tr>
<tr>
<td>Perry, William David</td>
<td>7, 66</td>
</tr>
<tr>
<td>Peterson, Frederick D.</td>
<td>97</td>
</tr>
<tr>
<td>Peterson, Leroy W.</td>
<td>123</td>
</tr>
<tr>
<td>Peterson, Malcolm L.</td>
<td>5, 65</td>
</tr>
<tr>
<td>Peterson, Roy Reed</td>
<td>57</td>
</tr>
<tr>
<td>Pettengill, Olive S.</td>
<td>92</td>
</tr>
<tr>
<td>Pfeifferberger, Mather, Jr.</td>
<td>124</td>
</tr>
<tr>
<td>Pfeiffer, Russell R.</td>
<td>102, 132</td>
</tr>
<tr>
<td>Pierce, Eugenia M.</td>
<td>97</td>
</tr>
<tr>
<td>Pierce, John A.</td>
<td>64</td>
</tr>
<tr>
<td>Name</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Pipes, Keith E.</td>
<td>125</td>
</tr>
<tr>
<td>Pittman, David L.</td>
<td>109</td>
</tr>
<tr>
<td>Pitts, Ferris N., Jr.</td>
<td>96, 109, 132</td>
</tr>
<tr>
<td>Plapp, Jon.</td>
<td>134</td>
</tr>
<tr>
<td>Platt, Daniel W.</td>
<td>124</td>
</tr>
<tr>
<td>Platt, William R.</td>
<td>92</td>
</tr>
<tr>
<td>Plax, Stephen L.</td>
<td>97</td>
</tr>
<tr>
<td>Podos, Steven M.</td>
<td>85</td>
</tr>
<tr>
<td>Post, Lawrence T., Jr.</td>
<td>85</td>
</tr>
<tr>
<td>Post, Martin Hayward</td>
<td>84</td>
</tr>
<tr>
<td>Potchen, E. James</td>
<td>117</td>
</tr>
<tr>
<td>Potter, Reese H.</td>
<td>112</td>
</tr>
<tr>
<td>Powers, Williams E.</td>
<td>116, 122</td>
</tr>
<tr>
<td>Pratt, Lindsay</td>
<td>88</td>
</tr>
<tr>
<td>Preisler, Paul W.</td>
<td>60</td>
</tr>
<tr>
<td>Prensky, Arthur L.</td>
<td>77</td>
</tr>
<tr>
<td>Price, Kenneth C.</td>
<td>69</td>
</tr>
<tr>
<td>Probstin, J. G.</td>
<td>122</td>
</tr>
<tr>
<td>Pugh, Reginald P.</td>
<td>67</td>
</tr>
<tr>
<td>Purkerson, Mabel</td>
<td>65, 96</td>
</tr>
<tr>
<td>Rachlin, Maxwell</td>
<td>85</td>
</tr>
<tr>
<td>Rader, George B.</td>
<td>125</td>
</tr>
<tr>
<td>Rainey, Robert R.</td>
<td>125</td>
</tr>
<tr>
<td>Raybuck, Harry E.</td>
<td>81</td>
</tr>
<tr>
<td>Reas, Herman W.</td>
<td>97</td>
</tr>
<tr>
<td>Reed, Charles A.</td>
<td>96</td>
</tr>
<tr>
<td>Reinhart, Edward Humphrey</td>
<td>5, 63, 117</td>
</tr>
<tr>
<td>Reinkemeyer, Joseph A.</td>
<td>124</td>
</tr>
<tr>
<td>Rennard, Marvin</td>
<td>81</td>
</tr>
<tr>
<td>Reynolds, Fred C.</td>
<td>121</td>
</tr>
<tr>
<td>Reynolds, Jacqueline A.</td>
<td>75</td>
</tr>
<tr>
<td>Renzak, Sorrell S.</td>
<td>67</td>
</tr>
<tr>
<td>Richards, Frank O.</td>
<td>124</td>
</tr>
<tr>
<td>Richardson, Orville</td>
<td>129</td>
</tr>
<tr>
<td>Ridings, G. R.</td>
<td>117</td>
</tr>
<tr>
<td>Rimoin, David L.</td>
<td>65</td>
</tr>
<tr>
<td>Rizzo, Adolfo E.</td>
<td>134</td>
</tr>
<tr>
<td>Roberts, Harold K.</td>
<td>66</td>
</tr>
<tr>
<td>Robins, Eli, 5, 7, 109, 132</td>
<td></td>
</tr>
<tr>
<td>Robins, Lee N.</td>
<td>109</td>
</tr>
<tr>
<td>Robinson, Edith C.</td>
<td>97, 112, 134</td>
</tr>
<tr>
<td>Robinson, Paul L.</td>
<td>137</td>
</tr>
<tr>
<td>Roblee, Melvin A.</td>
<td>80</td>
</tr>
<tr>
<td>Robson, Alan M.</td>
<td>67, 96</td>
</tr>
<tr>
<td>Rohling, Edwin H.</td>
<td>97</td>
</tr>
<tr>
<td>Roll, Doris</td>
<td>102</td>
</tr>
<tr>
<td>Roos, Albert</td>
<td>102, 121</td>
</tr>
<tr>
<td>Roper, Charles L.</td>
<td>123</td>
</tr>
<tr>
<td>Rose, Dalton Keats</td>
<td>121</td>
</tr>
<tr>
<td>Rosecan, Marvin</td>
<td>66</td>
</tr>
<tr>
<td>Rosenbaum, Harry David</td>
<td>85</td>
</tr>
<tr>
<td>Rosenbaum, Herbert E.</td>
<td>77, 85</td>
</tr>
<tr>
<td>Rosenthal, Ronald E.</td>
<td>123</td>
</tr>
<tr>
<td>Rosenzweig, Saul</td>
<td>109</td>
</tr>
<tr>
<td>Roter, Alexander Max</td>
<td>82</td>
</tr>
<tr>
<td>Roth, Benjamin</td>
<td>8</td>
</tr>
<tr>
<td>Rothman, David</td>
<td>80</td>
</tr>
<tr>
<td>Rouse, Ernest T.</td>
<td>66</td>
</tr>
<tr>
<td>Royce, Robert Killian</td>
<td>123</td>
</tr>
<tr>
<td>Royston, Grandison D.</td>
<td>80</td>
</tr>
<tr>
<td>Rumbaugh, Calvin L.</td>
<td>117</td>
</tr>
<tr>
<td>Russell, Herman E.</td>
<td>125</td>
</tr>
<tr>
<td>Sachar, Leo Aaron</td>
<td>123</td>
</tr>
<tr>
<td>Safdar, Shabbir</td>
<td>67</td>
</tr>
<tr>
<td>Salagian, Benjamin M.</td>
<td>67</td>
</tr>
<tr>
<td>Sakamoto, Arthur</td>
<td>65</td>
</tr>
<tr>
<td>Sala, John</td>
<td>117</td>
</tr>
<tr>
<td>Sale, Llewellyn, Jr.</td>
<td>66</td>
</tr>
<tr>
<td>Salmon, Mickey L.</td>
<td>85</td>
</tr>
<tr>
<td>Sandel, Thomas T.</td>
<td>102, 132</td>
</tr>
<tr>
<td>Sanders, James W.</td>
<td>82</td>
</tr>
<tr>
<td>Sanders, Theodore Eugene</td>
<td>85</td>
</tr>
<tr>
<td>Sargent, Frederick</td>
<td>96</td>
</tr>
<tr>
<td>Sato, George</td>
<td>97</td>
</tr>
<tr>
<td>Satterfield, James H.</td>
<td>110</td>
</tr>
<tr>
<td>Satterfield, Val R.</td>
<td>110</td>
</tr>
<tr>
<td>Sauer, Donald C.</td>
<td>125</td>
</tr>
<tr>
<td>Sawyer, James S.</td>
<td>82</td>
</tr>
<tr>
<td>Schaan, Robert C.</td>
<td>97</td>
</tr>
<tr>
<td>Schechter, Samuel E.</td>
<td>69</td>
</tr>
<tr>
<td>Scheer, George</td>
<td>124</td>
</tr>
<tr>
<td>Scheff, Harold</td>
<td>66</td>
</tr>
<tr>
<td>Schellhas, Helmut F. G.</td>
<td>81</td>
</tr>
<tr>
<td>Schlafke, Sandra Jean</td>
<td>57</td>
</tr>
<tr>
<td>Schilansky, Seymour M.</td>
<td>98</td>
</tr>
<tr>
<td>Schlesinger, Milton</td>
<td>5, 74</td>
</tr>
<tr>
<td>Schlesinger, Sondra</td>
<td>75</td>
</tr>
<tr>
<td>Schlessinger, David</td>
<td>6, 75</td>
</tr>
<tr>
<td>Schmidt, Hans</td>
<td>110</td>
</tr>
<tr>
<td>Schneider, Sam F.</td>
<td>124</td>
</tr>
<tr>
<td>Schoentag, John S.</td>
<td>69</td>
</tr>
<tr>
<td>Schoepfle, Gordon Marcus</td>
<td>101, 132</td>
</tr>
<tr>
<td>Schultz, Earl R.</td>
<td>77, 112</td>
</tr>
<tr>
<td>Schultz, Irwin</td>
<td>65</td>
</tr>
<tr>
<td>Schultz, John L.</td>
<td>6, 8</td>
</tr>
<tr>
<td>Schultze, Raymond G.</td>
<td>65</td>
</tr>
<tr>
<td>Name</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Schulz, Beatrice F.</td>
<td>139</td>
</tr>
<tr>
<td>Schwartz, Alfred S.</td>
<td>96</td>
</tr>
<tr>
<td>Schwartz, Frederick Oscar</td>
<td>85</td>
</tr>
<tr>
<td>Schwartz, Henry G.</td>
<td>5, 6, 7, 121</td>
</tr>
<tr>
<td>Schwartz, Melvin M.</td>
<td>81</td>
</tr>
<tr>
<td>Schwartzman, Bernard</td>
<td>97</td>
</tr>
<tr>
<td>Schwarz, Luis H.</td>
<td>111</td>
</tr>
<tr>
<td>Schafford, Ursula</td>
<td>92</td>
</tr>
<tr>
<td>Seckel, Paul W. III</td>
<td>82</td>
</tr>
<tr>
<td>Scott, Wendell G.</td>
<td>116</td>
</tr>
<tr>
<td>Scred, Willard C.</td>
<td>81</td>
</tr>
<tr>
<td>Seddon, John Wickham</td>
<td>69</td>
</tr>
<tr>
<td>Senturia, Audrey G.</td>
<td>135</td>
</tr>
<tr>
<td>Senturia, Ben H.</td>
<td>88</td>
</tr>
<tr>
<td>Senturia, Hyman R.</td>
<td>117</td>
</tr>
<tr>
<td>Shahan, Philip</td>
<td>85</td>
</tr>
<tr>
<td>Shank, Robert Ely</td>
<td>5, 6, 7, 63, 105</td>
</tr>
<tr>
<td>Shapleigh, John Blassel II</td>
<td>69</td>
</tr>
<tr>
<td>Shatz, Burton A.</td>
<td>69</td>
</tr>
<tr>
<td>Sheffield, William H.</td>
<td>92</td>
</tr>
<tr>
<td>Sheerman, William R.</td>
<td>110</td>
</tr>
<tr>
<td>Sherry, Sol, 5, 65</td>
<td></td>
</tr>
<tr>
<td>Shickman, Gerard M.</td>
<td>86</td>
</tr>
<tr>
<td>Shobe, Frank O.</td>
<td>110</td>
</tr>
<tr>
<td>Short, Anne Brown</td>
<td>105</td>
</tr>
<tr>
<td>Sierra, Gregorio</td>
<td>92</td>
</tr>
<tr>
<td>Silberberg, Ruth</td>
<td>92</td>
</tr>
<tr>
<td>Silver, Bernd</td>
<td>85</td>
</tr>
<tr>
<td>Silver, Herbert</td>
<td>92</td>
</tr>
<tr>
<td>Silverman, Sol Richard</td>
<td>88</td>
</tr>
<tr>
<td>Simms, Ernest S.</td>
<td>75</td>
</tr>
<tr>
<td>Simon, Nathan M.</td>
<td>112</td>
</tr>
<tr>
<td>Simril, Wayne A.</td>
<td>117</td>
</tr>
<tr>
<td>Sims, William A. Jr.</td>
<td>124</td>
</tr>
<tr>
<td>Sisk, James C.</td>
<td>66</td>
</tr>
<tr>
<td>Sisson, Richard G.</td>
<td>124</td>
</tr>
<tr>
<td>Skilling, David Miller, Jr.</td>
<td>69</td>
</tr>
<tr>
<td>Skinner, John Spalding</td>
<td>69</td>
</tr>
<tr>
<td>Slatopolsky, Eduardo</td>
<td>65</td>
</tr>
<tr>
<td>Sleator, William W. Jr.</td>
<td>5, 101</td>
</tr>
<tr>
<td>Sly, William S.</td>
<td>65</td>
</tr>
<tr>
<td>Smiley, William L.</td>
<td>81</td>
</tr>
<tr>
<td>Smitt, Herbert M.</td>
<td>88</td>
</tr>
<tr>
<td>Smith, Arthur A.</td>
<td>82</td>
</tr>
<tr>
<td>Smith, Carl H.</td>
<td>92</td>
</tr>
<tr>
<td>Smith, Catherine A.</td>
<td>88</td>
</tr>
<tr>
<td>Smith, Helen M.</td>
<td>86</td>
</tr>
<tr>
<td>Smith, J. Earl</td>
<td>137</td>
</tr>
<tr>
<td>Smith, Jay W.</td>
<td>67</td>
</tr>
<tr>
<td>Smith, John Russell</td>
<td>63</td>
</tr>
<tr>
<td>Smith, Kathleen</td>
<td>109</td>
</tr>
<tr>
<td>Smith, Margaret Gladys</td>
<td>91</td>
</tr>
<tr>
<td>Smith, Milton</td>
<td>69</td>
</tr>
<tr>
<td>Smith, Morton</td>
<td>85</td>
</tr>
<tr>
<td>Sommer, Ross B.</td>
<td>69</td>
</tr>
<tr>
<td>Sonnenwirth, Alexander C.</td>
<td>75</td>
</tr>
<tr>
<td>Sorensen, George D.</td>
<td>6, 92</td>
</tr>
<tr>
<td>Soto, Alberto</td>
<td>111</td>
</tr>
<tr>
<td>Soule, Samuel D.</td>
<td>80</td>
</tr>
<tr>
<td>Spencer, Andrew D.</td>
<td>122</td>
</tr>
<tr>
<td>Spradling, Albert, Jr.</td>
<td>137</td>
</tr>
<tr>
<td>Spratt, John S., Jr.</td>
<td>121</td>
</tr>
<tr>
<td>Stampp, Warren G.</td>
<td>6, 122</td>
</tr>
<tr>
<td>Staple, Tom W.</td>
<td>117</td>
</tr>
<tr>
<td>Starch, Helen</td>
<td>140</td>
</tr>
<tr>
<td>Strehens, William E.</td>
<td>92</td>
</tr>
<tr>
<td>Stein, Arthur H., Jr.</td>
<td>122</td>
</tr>
<tr>
<td>Stein, Martin F.</td>
<td>69</td>
</tr>
<tr>
<td>Steinberg, Franz U.</td>
<td>67, 106</td>
</tr>
<tr>
<td>Stern, John A.</td>
<td>109</td>
</tr>
<tr>
<td>Stevenson, J. Louis</td>
<td>86</td>
</tr>
<tr>
<td>Stewart, Frances Helen</td>
<td>81</td>
</tr>
<tr>
<td>Stewart, Mark A.</td>
<td>96, 109</td>
</tr>
<tr>
<td>Stickle, Arthur W., Jr.</td>
<td>85</td>
</tr>
<tr>
<td>Stohr, Paul E.</td>
<td>123</td>
</tr>
<tr>
<td>Stokes, James M.</td>
<td>122</td>
</tr>
<tr>
<td>Storrer, Bernice H.</td>
<td>8</td>
</tr>
<tr>
<td>Strauss, Arthur E.</td>
<td>66</td>
</tr>
<tr>
<td>Strittmatter, Philipp</td>
<td>60</td>
</tr>
<tr>
<td>Strominger, Donald B.</td>
<td>97</td>
</tr>
<tr>
<td>Strood, Malcolm H.</td>
<td>88</td>
</tr>
<tr>
<td>Suard, Ian Donald</td>
<td>92</td>
</tr>
<tr>
<td>Stutsman, A. Chesterfield</td>
<td>88</td>
</tr>
<tr>
<td>Sunshine, Herbert</td>
<td>124</td>
</tr>
<tr>
<td>Suntzeff, Vyalentinn</td>
<td>57</td>
</tr>
<tr>
<td>Susman, Irving C.</td>
<td>123</td>
</tr>
<tr>
<td>Susman, Noah</td>
<td>118</td>
</tr>
<tr>
<td>Sutter, Richard A.</td>
<td>106</td>
</tr>
<tr>
<td>Tan, Eng M.</td>
<td>65, 105</td>
</tr>
<tr>
<td>Taussig, Barrett L.</td>
<td>66</td>
</tr>
<tr>
<td>Taute, Herman</td>
<td>82</td>
</tr>
<tr>
<td>Taveras, Juan</td>
<td>5, 7, 116</td>
</tr>
<tr>
<td>Taylor, Eugene D.</td>
<td>81</td>
</tr>
<tr>
<td>Ternberg, Jessie L.</td>
<td>5, 6, 122</td>
</tr>
<tr>
<td>Ter-Pogossian, Michel M.</td>
<td>102, 116</td>
</tr>
<tr>
<td>Thaldmann, Ruedinger</td>
<td>88</td>
</tr>
<tr>
<td>Thiel, J. Allen</td>
<td>69</td>
</tr>
<tr>
<td>Thomas, Lewis J.</td>
<td>122</td>
</tr>
</tbody>
</table>
INDEX OF STAFF MEMBERS

Thomas, Lydia E., 57
Thompson, Doris, 69
Thompson, Lawrence D., 66
Thurston, Donald Lionel, 96
Thurston, Jean Holowach, 96
Tillman, Mary A. T., 98
Tolmach, Leonard J., 116
Torin, Bernice A., 82
Torrance, Daniel J., 117
Torrres-Reyes, Emilio, 118
Townsend, Arthur M. III, 82
Trackler, Richard T., 118
Trotter, Mildred, 6, 57, 117
Tsifutis, Argyrios A., 96
Tsuchiya, Hiromu, 74
Tuason, Vincente B., 110
Tubbs, Garth D., 138
Tucker, George, 125
Turner, James K., 97

Utiger, Robert D., 65

Vagelos, P. Roy, 5, 6, 59
Vanderpearl, Robert H., 111
Vavra, John D., 65, 105
Veeder, Borden Smith, 96
Venable, Howard P., 85
Vermillion, Crofford O., 137
Vickerstaff, Hugh, 137
Viers, Wayne A., 88
Viotti, Teresa J., 96
Voeg, Barbara Nancy, 97
Voeg, Marylyn, 111, 134
Votaw, Robert E., 88

Wald, Stanley M., 69
Walker, J. Leslie, 81
Walker, Willard B., 124
Wallin, Richard F., 117
Walsh, James W., 69
Walsh, Peter N., 67
Walsh, Theodore E., 88
Walsh, Thomas Joseph, 64
Walton, Franklin Edward, 122
Wamsley, James R., 125
Warmbrodt, John, 137
Warner, John, 137

Wasserman, Helman C., 81
Waters, Hugh R., 69
Watkins, George L., Jr., 123
Watson, M. Frances, 105
Wattenberg, Carl A., 123
Watts, Wade R., 117
Wec, George C., 125
Weisbrod, Wilfred B., 82
Weichselbaum, Theodore E., 122
Weisman, Sol, 81
Weiss, Barbara Gibgot, 118
Weiss, Stuart, 77
Welch, Michael John, 117
Wennecker, Alvin S., 69
Wessler, Stanford, 6, 64
West, Joseph Warren, 88
Wette, Reimut, 105
Weygandt, Glenn R., 122
White, Harvey Lester, 102
White, Newton B., 124
White, Park J., 96
Whitlow, George S., Jr., 131
Whittico, James M., 125
Wiegand, Herbert C., 69
Wiese, Harry W., 69
Wiest, Walter Gibson, 60, 80
Wilber, John F., 67
Wilkins, George T., Jr., 98
Williams, Carol F., 81
Williams, Ray David, 66
Williamson, Joseph R., 92
Wilson, Hugh Monroe, 57, 116
Wilson, Keith Singleton, 66
Windsor, Charles E., 86
Winokur, George, 109
Winterling, Charles A., 69
Winters, Kathleen, 97
Wissmath, Frank S., 97
Wissner, Seth E., 81
Withers, Elizabeth, 138
Witte, Marlys, 67
Wochner, R. Dean, 65
Wolf, Harold D., 112
Wolfgram, Edwin D., 112
Womach, Granville J., 122
Wood, James A., 69
Wood, Patricia Ann, 138
Woodruff, Robert A., Jr., 110
Wool, Gerald, 97
Woolf, Ralph B., 7, 80
INDEX OF STAFF MEMBERS

Word, Parker H., 82
Wortley, Neil, 137
Wulff, George J. L., Jr., 81
Yanow, Mitchell, 81
Yin, Ee Thye, 69
Yuan, Louis S. K., 92
Yunice, Aniece A., 69
Zimmerman, Herbert B., 69
Zink, Oscar C., 117
Zografakis, George H., 125
Zwirn, H. Benjamin, 97
All schools except Medicine, Dentistry, and Nursing, are located on the main campus at Lindell and Skinker Boulevards, St. Louis, Missouri 63130.

THE FACULTY OF ARTS AND SCIENCES
THE COLLEGE OF ARTS AND SCIENCES
THE GRADUATE SCHOOL OF ARTS AND SCIENCES

THE SCHOOL OF ENGINEERING AND APPLIED SCIENCE

THE SEVER INSTITUTE OF TECHNOLOGY

THE SCHOOL OF ARCHITECTURE

THE SCHOOL OF BUSINESS AND PUBLIC ADMINISTRATION

THE GRADUATE SCHOOL OF BUSINESS ADMINISTRATION

THE SCHOOL OF FINE ARTS

THE SCHOOL OF SOCIAL WORK

THE SCHOOL OF LAW

THE SCHOOL OF MEDICINE

THE SCHOOL OF DENTISTRY

THE SCHOOL OF NURSING

UNIVERSITY COLLEGE

THE SUMMER SCHOOL