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WASHINGTON UNIVERSITY School of Medicine

Fiftieth Anniversary

Washington University School of Medicine and the One Hundredth Anniverary of the Birth of

Robert Somers Brookings

February 21, 1950

11:00 SPECIAL CONVOCATION Harold G. Moulton, President, Brookings Institution, Washington, D. C., "Robert Somers Brookings"

2:00 LAYING OF CORNERSTONE OF THE CANCER RESEARCH BUILDING

Harry Brookings Wallace, President, Board of Directors, Washington University

Leonard Scheele, Surgeon General, United States Public Health Service

2:30 PROGRAM IN AUDITORIUM OF THE SCHOOL OF MEDICINE

Ernest Goodpasture, Professor of Pathology and Dean, Vanderbilt University School of Medicine,

- "Some Aspects of Twentieth Century Research on Infectious Diseases"
- Charles Huggins, Professor of Surgery, University of Chicago School of Medicine,

"The Significance of the Reactive Groups of Proteins in Diagnosis"

Edwards Park, Professor Emeritus of Pediatrics, Johns Hopkins University School of Medicine,

"Observations on Bone Growth"

7:30 DINNER AT THE CHASE HOTEL

Arthur Holly Compton, presiding

Harry Brookings Wallace, President, Board of Directors, Greetings

Robert Allan Moore, Dean, "The Fiftieth Anniversary"

- Philip Anderson Shaffer, Distinguished Service Professor of Biological Chemistry, "Robert Somers Brookings"
- Robert J. Terry, Professor Emeritus of Anatomy, "The Medical Fund Society"

Alan Gregg, Director for Medical Science, Rockefeller Foundation, "Time and the University"

Seated at the Speaker's Table

From left to right

- DR. JAMES BARRETT BROWN, Vice-President, Washington University Medical Alumni Association
- MR. JOHN R. SHEPLEY, President, Board of Directors, Barnard Free Skin and Cancer Hospital
- DR. CHARLES HUCCINS, Professor of Surgery, University of Chicago, School of Medicine
- MR. EDGAR RAND, Trustee, Barnes Hospital
- MRS. HARRY BROOKINGS WALLACE, Saint Louis
- DR. ERNEST GOODPASTURE, Dean, and Professor of Pathology, Vanderbilt University School of Medicine.
- MR. ABRAHAM FLEXNER, Former Director, General Education Board, New York
- MRS. ROBERT SOMERS BROOKINGS, Washington, D. C.
- MR. HARRY BROOKINGS WALLACE, President, Board of Directors, Washington University
- DR. ALAN GRECC, Director, Medical Sciences, Rockefeller Foundation
- MR. ARTHUR HOLLY COMPTON, Chancellor, Washington University

- DR. HAROLD G. MOULTON, President Brookings Institution, Washington, D. C.
- DR. J. R. HELLER, Director, National Cancer Institute, Bethesda, Maryland
- DR. ROBERT JAMES TERRY, Professor Emeritus of Anatomy, Washington University School of Medicine
- MRS. ARTHUR HOLLY COMPTON, Saint Louis
- DR. EDWARDS PARK, Professor Emeritus of Pediatrics, Johns Hopkins University School of Medicine
- MR. CHARLES BELKNAP, Vice-Chancellor, Washington University
- MRS. ROBERT A. HOLLAND, Vice-President, Board of Managers, St. Louis Children's Hospital
- MR. FOREST TRALLES, Chairman, Board of Managers, Washington University Clinics
- MRS. HOWARD ROMMEL HILDRETH, Vice-President, Board of Managers, Social Service Department of Washington University Clinics and Allied Hospitals
- DR. ROBERT A. MOORE, Dean and Edward Mallinckrodt Professor of Pathology, Washington University School of Medicine

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

FIFTY YEARS 1899-1900 to 1949-1950

UNION OF THE FIRST MEDICAL COLLEGES IN THE WEST

T HE Medical Department of Washington University 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, until it, too, became independent in 1857. In 1899, the Missouri Medical College affiliated with the St. Louis Medical College, 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. His successor as professor of surgery at the St. Louis Medical College, E. H. Gregory, was elected president of the national Association in 1886. John T. Hodgen, who was a graduate of the Missouri Medical College and before the Civil War a member of its faculty and one time dean of the faculty as well as professor of surgical anatomy at the St. Louis Medical College, was president of the American Medical Association in 1880. Hodgen originated the Hodgen splint for hip fracture, which is still used. Joseph Nash McDowell was vice-president of the American Medical Association.

Both colleges had continued to raise their requirements until satisfactory completion of a four-year graded course was required for the M.D. degree by both schools at the time of the union in 1899. The existence of the Medical Fund Society, which was organized by members of the faculty of the St. Louis Medical College to support medical education, and to which for a time, the members contributed their entire yearly salaries, is an adequate testimonial to the spirit of these physicians.

THE ST. LOUIS MEDICAL COLLEGE

We, of the present time, are content to have laid the foundation of an Institution whose superstructure must be left to other hands. I hope and believe that it will prove of great benefit to the West and to humanity, and that it will go on prospering . . . and extend its benign influence to far distant generations.—Dr. Charles A. Pope.

T HE Medical Department of St. Louis University, which later became the St. Louis Medical College, gave its first regular series of lectures in 1842, though the establishment of a medical department of this university had been planned since 1835, when its Board of Trustees met with prominent St. Louis physicians to discuss the need for a medical school.

The St. Louis Medical Society proposed the names of six physicians, who were elected to serve on the first faculty, which was approved by the University in 1836. William Beaumont, pioneer physiologist who had become internationally known since the publication in 1833 of his book, *Experiments and Observations on the Gastric Juice and the Physiology of Digestion*, which gave an account of his experiments with Alexis St. Martin, was a member of this first faculty. There is no evidence that Dr. Beaumont ever taught, though he promised to deliver a single course of lectures on digestion in 1851, providing he could bring St. Martin to St. Louis. The Secretary of the first Board of Trustees of the medical department was the Reverend William Greenleaf Eliot, for whom Washington University was first named Eliot Institute, which name was changed at Eliot's request to Washington Institute and finally to Washington University. It is doubtful whether or not this first faculty ever



The St. Louis Medical College, 1854; Pencil Sketch by Dr. Gustav Baumgarten

functioned; the catalogue for 1840 states "Medical Department not in operation."

Regular instruction began in 1842 in a small house owned by Dean Prather on Washington Avenue, between Tenth and Eleventh Streets. Later a building was erected for the College on Seventh and Myrtle (now Clark). The faculty consisted of Doctors Josephus Wells Hall, Hiram Augustus Prout, James Vance Prather, Daniel Brainard, and Moses Lewis Linton (who founded the *St. Louis Medical and Surgical Journal*, the first medical journal west of the Mississippi. A course of lectures was delivered in the winter of 1842-43 and the degree of Doctor of Medicine was conferred on the first graduating class of six. Before the next session, vacancies caused by the resignation of Dr. Prout and Dr. Brainard (who returned to Chicago to found the Rush Medical College, now the medical department of the University of Chicago) were filled by Dr. Abram Litton, Dr. Joseph Norwood, and Dr. Charles Alexander Pope. The next year Dr. Moses Pallen joined the faculty.

Dr. Charles A. Pope was twenty-five when he was made professor of anatomy and physiology in the St. Louis Medical College. He had begun his medical studies with two doctors in Huntsville, Alabama. He received his M.D. from the University of Pennsylvania and soon after began a period of study in Paris. He succeeded to the Chair of Surgery when he was twentynine and was elected Dean two years later. Students who began medical studies in Paris were said to have received full credit for work undertaken at the St. Louis Medical College, such was the respect held for Dr. Pope abroad.

In 1855, largely because of a political movement, the school severed its connection with the St. Louis University and was chartered an independent institution, the St. Louis Medical College. In 1866, the College allied with the Missouri Dental College, the first American school of dentistry that recognized by alliance with a medical school the need of its students for a fundamental medical education. (The Missouri Dental College became in 1892 the Dental Department of Washington University.)

At the death of Dr. Pope in 1870, the Medical Fund Society was formed by members of the faculty to purchase the college building which Dr. Pope had owned, and "to hold this property in trust to be devoted forever to the teaching of Medical Science." The Medical Fund Society later financed the necessary alterations, upkeep, and expansion of the college, including the erection in 1892, of a new building for use of the medical and dental departments at Eighteenth and Locust Streets.

In 1891 the St. Louis Medical College became the Medical Department of Washington University.

THE MEDICAL FUND SOCIETY

It is hereby certified and declared that the undersigned, members of the Faculty of the St. Louis Medical College of the City of St. Louis, State of Missouri, desiring to promote the proper study and cultivation of the science and practice of Medicine and Surgery, and to create a fund, which shall be perpetually consecrated to said purposes as in these Articles set forth, do hereby associate themselves together and form a Society to be incorporated pursuant to the laws of the State of Missouri. . . ."

-Articles of Association of the Medical Fund Society.

W HEN Dr. Charles A. Pope, Dean of the St. Louis Medical College, died in in 1870, the college building, which he had owned, was offered for sale by his administrator. Abram Litton, John B. Johnson, E. H. Gregory, John T. Hodgen, J. S. B. Alleyne, E. F. Smith, Louis C. Boisliniere, and John McDowell, all members of the faculty of the St. Louis Medical College, formed an association, which was incorporated as the Medical Fund Society in 1872. At the first meeting held in the office of Dr. John T. Hodgen, the purchase of the college property at Seventh and Myrtle (now Clark) was authorized.

The members agreed that a fund should be established to which each member would pay annually, until the amount of the purchase price had been paid, the full amount of his share in the net proceeds of the lectures delivered that year, and receive in return a certificate of indebtedness for three-fourths the amount from the Society. These certificates were to bear interest and to mature in five years from that date. The rental paid by the St. Louis Medical



Dr. John T. Hodgen, Presiding Officer at the first meeting of the Medical Fund Society, March 18, 1872 and the Missouri Dental Colleges for the use of the building would also be paid into the fund. In order to meet the cash payment members voted to pay at once the full amount of their share of the lectures delivered in 1871-1872.

Free legal assistance in the formation of the Society was given by Henry Hitchcock, for whom the Society founded the Hitchcock Scholarship in recognition of his services.

In 1875, the last of the payments on the Seventh Street property was due, and the Society, at its June meeting, sacrificed all rights to the stock issued. The members further agreed to contribute regularly one-fourth of their annual salaries to the society. Thus in a day when the usual medical school was chiefly a business enterprise administered for the profit of the faculty these men had contributed for four years the entire amount of their time in medical teaching to further the cause of medical education.

Further alterations in the old building and the new buildings erected in 1881 and 1892 for increased laboratory and clinical facilities were undertaken by the Society and financed in the same manner.

At the annual meeting in 1887 a committee was appointed to recommend to the faculty of the St. Louis Medical College a "plan for the consummation, if possible, of an immediate connection of the St. Louis Medical College with the Washington University as its Medical Department." The union became a reality April 20, 1891, and by the agreement the Medical Department of Washington University so formed was to be known as the St. Louis Medical College and was to be maintained "by the fees of students and such gifts as may be received for its support, development, or maintenance." The Medical Fund Society took an active part in determining the financial basis of the union in 1899. The Society leased the Missouri Medical College buildings and then rented them to the Medical Department for the amount due under the terms of the lease. The new school, now a department of Washington University, continued to manage its own affairs for the most part until 1910. In 1912, the ownership of the Locust Street home of the St. Louis Medical College was transferred to Washington University.

The Society has retained its corporate existence until the present time. The membership is made up of the following men:

Dr. Robert J. Terry, President

Dr. Walter Fischel, First Vice-President

Dr. Otto Schwarz, Second Vice-President

Dr. Walter Baumgarten, Jr., Secretary-Treasurer

Dr. Vilray P. Blair

THE MISSOURI MEDICAL COLLEGE

. . . although we may not be among those who will reap the advantage of the labors of the profession at this point, still we believe the destiny of St. Louis in medicine is not to be equalled by any position in Western America.

-Dr. Joseph N. McDowell.

JOSEPH NASH MCDOWELL, founder of the Missouri Medical College, came to St. Louis in 1840 and laid the cornerstone of the Medical Department of Kemper College the same year. The first course of lectures was delivered in the winter of 1840-41 by a faculty of five: Doctors Joseph Nash McDowell, J. W. Hall, Hiram A. Prout, John S. Moore, and John DeWolf. In the year 1841-42 there were sixty students and thirteen graduates.

The school was first located at Ninth and Cerre on a hill overlooking Chouteau's Pond. In 1845, Kemper College was forced to close its doors because of lack of funds. In 1846, the medical school became a department of the University of Missouri, and in 1847, construction of a new building at Eighth and Gratiot Streets was begun. The new building was a large octagonal structure of grey stone topped with an odd dome. This fortresslike building was used by the Northern forces as a prison during the Civil War after McDowell had joined the Confederate army as a surgeon and taken with him ammunition which he had stored in the college for a proposed expedition to conquer upper California. Six cannon had been cast from the college bell. After the war, McDowell refurnished the wrecked building and re-established the school.



The Missouri Medical College, Eighth and Gratiot Streets

Dr. Joseph Nash McDowell was a graduate of Transylvania University. He was brother-in-law, student, and associate of Daniel Drake in his efforts in the field of medical education, and a nephew of Ephraim McDowell, who performed the first ovariotomy. McDowell was much loved as a teacher, for his lectures were always highly entertaining as well as instructive. Many anecdotes testify to his personal eccentricities, but one of his firmest loyalties was to medical education, and he remained a dominant figure in the Missouri Medical College until his death in 1868. Never did he permit another professor to deliver the introductory lecture or the valedictory address.

As a result of the reorganization of the University of Missouri, which required all instructors to devote their full time to education and therefore would have restricted professors in the medical department from practice, the Board thought it "improper to proceed to elect Professors in the Medical School." The School became an independent institution, the Missouri Medical College, in 1857.

In 1870, the College moved to Sixth and Elm to share the building occupied by St. Luke's Hospital. Four years later, another move was made to the new college building that had been erected on the northeast corner of Twenty-second Street and Lucas Avenue. Here the clinics of the College were only separated from St. John's Infirmary by an alley. A covered bridge connected the Hospital and the College so that patients could be carried into the lecture amphitheater. The St. Louis Polyclinic and Post-Graduate Medical School (the first school for post-graduate medical instruction in the United States) and the Missouri Medical College united, thus formalizing an affiliation which had been in effect for some time. In 1893, the College moved to a new building connected with the Polyclinic at Jefferson and Lucas.

In 1899, the school made its final alliance, its union with the St. Louis Medical College, the Medical Department of Washington University.



Robert Somers Brookings

THE MEDICAL DEPARTMENT OF WASHINGTON UNIVERSITY

T HE annual bulletin of the Washington University Medical Department for the school year 1899-1900 makes the following announcement: "The union of the two oldest and most representative of the medical colleges in the West was undertaken and successfully consummated in behalf of a broader and more thorough training, and we firmly believe that this object will be accomplished."

The faculties of both schools resigned so that the formation of the new faculty could be more easily undertaken. The catalogue mentions the increase in teaching force, the two new buildings, formerly used by the Missouri Medical College, and the increase in clinical facilities.

THE REORGANIZATION OF 1910

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, St. Louis merchant who was president of the Board of Directors of Washington University. The shocked Mr. Brookings went to New York and asked for 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 something should be done.

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 this meeting 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."

The reorganized staffs began their work at the opening of the session of 1910-1911. Dr. George Dock, Dean and Professor of Medicine, Dr. Joseph Erlanger, Physiology, Dr. John Howland, Pediatrics, Dr. Eugene Opie, Pathology and Bacteriology, Dr. Philip Shaffer, Chemistry, Dr. R. J. Terry, Anatomy, Dr. David L. Edsall, Preventive Medicine, and Dr. Fred T. Murphy, Surgery, made up the Executive Faculty in 1911, assisted by an Advisory Committee made up of Dr. Washington E. Fischel, Dr. Norman B. Carson, and Dr. John Blasdel Shapleigh.

The buildings at Locust and Eighteenth Streets had been remodeled. The clinical staff used the University Hospital, the O'Fallon Dispensary, and the Washington University Hospital dispensary; the University was also affiliated with Mullanphy Hospital and the St. Louis Children's Hospital. Plans were begun for new buildings and for the securing of additional clinical facilities.

AFFILIATION WITH THE BARNES HOSPITAL

When Robert A. Barnes died in 1892, he left a will which directed that the trustees of his estate should use \$100,000 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.

Agreement was made between the University and the Trustees of the Barnes Hospital, and the cornerstone of the Barnes Hospital was laid in October, 1912, at the present site on Kingshighway fronting Forest Park. Barnes Hospital has grown from a 150-bed institution in 1914 to one of 435 beds.



Dr. William H. Welch and Dr. George E. Vincent at the Dedication Ceremonies, April 30, 1915

On November 17, 1949, a new contract between Washington University and the Barnes Hospital was signed "to give permanence and contractual force to an affiliation which has grown in usefulness and public service far beyond the original vision, but wholly within its principles."

AFFILIATION WITH THE CHILDREN'S HOSPITAL

St. Louis Louis Children's Hospital was formally opened October, 1879, in its building at 2834 Franklin Avenue. The Board of Managers, composed entirely of interested women, erected a larger hospital building at Jefferson and Adams Streets in 1884. In 1885 the hospital first had a resident physician, and it was about this time that the staff was permitted to bring students into the hospital for instruction. In 1910 the hospital affiliated with the Washington University School of Medicine, and the Martha Parson's Free Hospital for Children placed its beds in the new St. Louis Children's Hospital on Kingshighway.

DEDICATION OF THE NEW BUILDINGS IN 1915

During the spring of 1912 construction was begun on the buildings which form the nucleus of the present center. The laboratories were moved from their old quarters on Eighteenth and Locust Streets into the new buildings on Euclid



The St. Louis Children's Hospital, Jefferson and Adams Streets, 1884-1914

and Kingshighway during the summer of 1914, and late in the fall of the same year the hospital organizations were transferred from the Washington University Hospital and the St. Louis Children's Hospital on Jefferson Avenue, to the Barnes Hospital and to the new home of the St. Louis Children's Hospital.

The medical school buildings, now, as in 1915, number three, the North Building, the South Building, and the Clinic Building. The North Building, on Scott and Euclid Avenues, houses the Administrative offices of the school, the assembly hall, the library, and the laboratories of the departments of surgery and anatomy.

The South Building on McKinley and Euclid, contains the departments of biochemistry, pharmacology, and physiology.

The Clinic Building, west of Euclid, is the home of the Washington University Clinics and contains the departments of pathology, and bacteriology and immunology.

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. On Thursday, April 29, 1915, at ten o'clock in the morning, a procession formed in the Rotunda of the Barnes Hospital. Officers of the administration of Washington University, the Mayor of St. Louis, speakers, representatives of the Faculties of Washington University, delegates and guests from universities in the United States and abroad, and the faculty of the Medical School marched to the Auditorium of the Medical School. Acting Chancellor Frederic Aldin Hall was the presiding officer.

Addresses were given by the Dean of the Medical School, Eugene Lindsay Opie, by Professor William Henry Welch of the Johns Hopkins University, by President Abbott Lawrence Lowell of Harvard University, by Henry Smith Pritchett, President of the Carnegie Foundation for the Advancement of Teaching, and by President George Edgar Vincent of the University of Minnesota.

The dedication ceremonies marked what Dr. William H. Welch of the Johns Hopkins University called "one of the most significant events in the history of medical education in America." Robert S. Brookings, the one man most responsible for the reorganization, voiced the hope that "our efforts will contribute, in some measure, to raising the standard of medical education in the West, and that we will add, through research activities, our fair quota to the sum of the world's knowledge of medicine."

These prophetic words of Mr. Brookings have been realized. Local, national, and international recognition has come to the school and to members of the faculty. Three members of the faculty have been given the St. Louis Award, and research work done at the school has resulted in four Nobel Prizes. Three of the Nobel Laureates are now active on the faculty, thus making the Washington University School of Medicine unique among medical schools the world over.

THE ST. LOUIS AWARD

To honor the person or persons who . . . has performed such services as to bring honor to the community.



Dr. Gerty T. Cori

Dr. Carl F. Cori

Dr. Evarts A. Graham, Bixby Professor of Surgery, was given the St. Louis Award in 1942 "For his basic achievements in developing pulmonary and hepatic surgery; for his productive leadership as a teacher of students and practitioners and for his pervasive influence upon surgical theory and practice; and in particular for his comprehensive focusing of present knowledge upon the treatment of war injuries, thereby making this information easily available to all surgeons for the conservation and rehabilitation of the victims of the carnage of war."

Dr. Gerty Cori and Dr. Carl Cori, Professors of Biological Chemistry, were given the St. Louis Award in 1948 "For their final success in achieving an understanding of one of the most recondite areas of knowledge of the physiology of man; for their contribution to the reputation of St. Louis as a national medical center; for the distinction they brought to St. Louis by meriting the honor of the Nobel Prize in Medicine for 1947."

THE NOBEL PRIZE WINNERS IN MEDICINE

To him who has made the most important discovery in the realm of physiology or medicine . . . within the respective twelve months successfully elapsed, rendered the greatest service to mankind.—*Alfred Nobel*.



Dr. Herbert S. Gasser



Dr. Joseph Erlanger



Dr. Carl Cory and Dr. Gerty Cori

Dr. Joseph Erlanger, Professor Emeritus of Physiology, and Dr. Herbert S. Gasser, formerly Professor of Pharmacology of the Washington University School of Medicine, now Director of the Rockefeller Institute for Medical Research, New York, were given the Nobel Prize in 1944 for their investigation of the conduction of impulses by nerves.

Dr. Gerty T. Cori and Dr. Carl F. Cori, Professors of Biological Chemistry, were awarded the Nobel Prize in 1947 for their investigation of the cycle which is required to change glucose into glycogen and glycogen into glucose.





BENEFACTIONS AND ACCOMPLISHMENTS

MUCH of the story from 1915 until the present day is the story of interested citizens who have assisted the school to grow and have provided the constantly increasing facilities needed by the medical school and the affiliated hospitals. Washington University takes this occasion to acknowledge the gifts which have been made for buildings and endowment. In addition, many other gifts have been received for special research projects and for current expenses of the medical school and of the hospitals. National foundations as well as individuals have participated in the growth of the school.

The General Educational Board has especially contributed to the development of our present Medical Center. The General Education Board, established by John D. Rockefeller, was one of the first great educational foundations in America. For a time, medical education was the most active interest of the Board, and over one-third of its grants were for medical schools. Washington University has received generous and essential aid, which in most cases was combined with gifts from local citizens to the fulfillment of many of the projects mentioned in the following pages.

THE BUILDINGS OF THE SCHOOL OF MEDICINE

A T THE TIME of the reorganization of the Medical School in 1910, two needs were immediately apparent. The school needed an enlarged physical plant with greatly increased clinical facilities and an additional endowment for the salaries of those who would devote their full time to medical education.

BENEFACTION: Robert S. Brookings, having informed himself on the essentials of a model medical school, proceeded to acquire the necessary facilities for the University. He persuaded the Trustees of the Barnes estate and the Board of Managers of the St. Louis Children's Hospital to build hospitals in the Medical Center on Kingshighway, and then drew generously upon his personal fortune for the construction of the medical school buildings: the North, South, and Clinic Buildings.

ACCOMPLISHMENT: These buildings continue to be used today to provide the basic training of medical students and to further research. Twenty-six hundred and fifty-three students have received their M.D.'s after study in these laboratories, classrooms, and lecture halls, and these alumni are now practising in all parts of the world. Research work in the South Building has resulted in four Nobel Prizes in medicine. The hospitals continue to provide the bed-side training and practical experience essential for thorough training in medicine.



The North Building of the School of Medicine

ENDOWED PROFESSORSHIPS

The second keystone in Mr. Brookings' plan for the reorganization of the School of Medicine was endowment of certain professorships, in order that outstanding men in the United States could be invited to join the then reorganized faculty.

BENEFACTIONS:

Busch Professorship of Medicine given by Mr. Adolphus Busch Bixby Professorship of Surgery contributed by Mr. William K. Bixby Mallinckrodt Professorship of Pathology, the gift of Mr. Edward Mallinckrodt

ACCOMPLISHMENTS: To recite the accomplishments of these benefactions would require a recapitulation of the many activities of the three departments over a period of forty years. The endowments have made it possible to have on the faculty

As the Busch Professor of Medicine Dr. George Dock, 1910-1922 Dr. David P. Barr, 1925-1941 Dr. W. Barry Wood, 1942----- As the Bixby Professor of Surgery Dr. Fred T. Murphy, 1911-1919 Dr. Evarts A. Graham, 1919—

As the Mallinckrodt Professor of Pathology

Dr. Eugene L. Opie, 1910-1923 Dr. Leo Loeb, 1924-1937 Dr. Howard A. McCordock, 1937-1938 Dr. Robert A. Moore, 1939-----



Chemistry Laboratory in the Children's Hospital

FULL-TIME CLINICAL DEPARTMENTS

The Flexner report first focused attention on the differences between general education and medical education. In most universities the teaching staff were and are on a full-time basis with the efforts of faculty focused on research as well as teaching. In most medical schools until 1917, the entire faculty was on a part-time basis. Abraham Flexner pointed out the great advantages to education and research if some of the faculty in the clinical departments were on a full-time basis.

BENEFACTION: The General Education Board joined with St. Louisans to establish and endow the

John T. Milliken Department of Internal Medicine Mary Culver Department of Surgery Edward Mallinekrodt Department of Pediatrics

ACCOMPLISHMENTS: Since Washington University established full-time departments in 1917, one of the first schools of medicine in the country to do so, there have been from three to cight persons in each of the three departments who have devoted themselves primarily to teaching and research. The accomplishments of these men are numerous and important — in cholecystography, thoracic surgery, infant feeding, and in metabolic disorders, to name just a few of many activities.



Hospital Ward, Second Floor Barnes Hospital

THE PRECLINICAL DEPARTMENTS

After the establishment of the three clinical departments—medicine, surgery, and pediatrics—on a full-time basis, it was logical to place some of the preclinical departments on a secure foundation.

Today, there are six preclinical departments—anatomy, bacteriology and immunology, biochemistry, pathology, pharmacology, and physiology. Three of these are endowed.

EDWARD MALLINCKRODT DEPARTMENT OF PHARMACOLOGY

BENEFACTION: Edward Mallinckrodt, together with the General Education Board, gave an endowment for general support to the department of pharmacology.

ACCOMPLISHMENTS: Much important research has been done in this department. It was as professor of pharmacology that Dr. Herbert Gasser collaborated with Dr. Joseph Erlanger on experiments for which the Nozel Prize was given. Dr. Gasser was succeeded by Dr. Carl Cori, and much of the now classical work of the Cories on carbohydrate metabolism was carried on in the department of pharmacology.

DEPARTMENT OF ANATOMY

BENEFACTION: The General Education Board by a grant made possible endowment of this department.

ACCOMPLISHMENTS: In the earlier days anatomy was largely a descriptive subject. With the growth of the medical sciences in the first part of the nineteenth century, anatomy and especially histology became dynamic and functional. The endowment made it possible to expand the department into these fields and to bring to St. Louis as professor of cytology Dr. E. V. Cowdry, whose research in cancer has become well known throughout the world.

DEPARTMENT OF BACTERIOLOGY AND IMMUNOLOGY

BENEFACTION: An endowment for the department of bacteriology and immunology was made available by the General Education Board.

ACCOMPLISHMENTS: Until 1923 there was a combined department of pathology and bacteriology. Development in our knowledge of the bacterial and viral causes of disease made it desirable to establish bacteriology as a separate department. With this assistance, Dr. Arthur I. Kendall was invited to become professor and head of the department. In 1928, when Dr. Kendall resigned to go to Northwestern University, Dr. Jacques Bronfenbrenner joined the faculty. Much of the pioneer work on bacteriophage and on mathematical expressions of immunity has been done in this department.

GENERAL ENDOWMENT OF 1923

The period following World War I, especially during the early 1920's, was one of economic upheaval. Funds available for the operation of the medical school in 1910 were no longer adequate to maintain a school of high quality. The University appealed to the General Education Board for funds which would give the school additional endowment, provide more material for clinical teaching, improve the laboratories in pediatrics, and develop the department of obstetrics on a basis comparable to the other major departments.

BENEFACTION: The General Education Board pledged a contribution on the condition that the University secure additional gifts. The Subscription Fund of 1923 met this condition of the General Education Board. Joseph D. Bascom, W. K. Bixby, Robert S. Brookings, George O. Carpenter, Benjamin Gratz, Jackson Johnson, Robert McK. Jones, John F. Lee, Edward Mallinckrodt, A. L. Shapleigh and Robert H. Stockton contributed to the Subscription Fund, which is a general endowment for the School of Medicine to provide the staff required to maintain the high standards of the institution.

ACCOMPLISHMENT: The Subscription Fund of 1923 has enabled the University to maintain high standards through the difficult period of the 1920's and to hold and add to the faculty in the succeeding years.



Class in Microscopic Pathology

OBSTETRICS AND GYNECOLOGY

MATERNITY HOSPITAL

One of the greatest accomplishments of modern medicine is the reduction in infant and maternal mortality. One reason for this has been the increasing use of the hospital for the safety of the mother and infant at birth.

BENEFACTION: In 1927, the Board of Managers of the St. Louis Maternity Hospital decided to build a new hospital in the Medical Center on Kingshighway. In 1945, the Board came to the conclusion that the benefits to the women and families of St. Louis of a Maternity Hospital could be best accomplished if the University owned the hospital. Accordingly, the Maternity Hospital is now owned by the University and operated as an integral part of the Medical Center by the Barnes Hospital.

There are plaques in the Maternity Hospital memorializing gifts as follows: Room 703: In memory of Belle R. and John A. Holmes

Room 704: In memory of Marion Gratz

Seventh Floor Nursery Wing: Edwin Godwin Nursery Wing

Seventh Floor Waiting Room: Dedicated to her mother by Mrs. Alvin D. Goldman

Seventh Floor Nursery Beds dedicated to:

Alice Goddard Briggs	D. L. Grey	Charlotte Pilcher
Mrs. Sarah Doty Brown	Grace	Amelia Stix Rice
Mary Lupton Carter	Dora Harrison	Josephine B. Singer
Ruth Stone Curby	Virginia C. Lynch	Mina W. Shapleigh
Mary Bergesch Duncker	Katherine McBride	Jane Elizabeth Taylor
Mary H. Elliot	Thomas Dulany Murphy	Sarah Waldheim
Edwin Gould	Frances H. Parsons	

Sixth Floor Nursery Beds dedicated to:

Jos. D. Bascom	Dr. Elisha H. Gregory
Mary Blake Bordley	Elizabeth Samuel Garrison
Lilly Busch	John B. Henderson, Jr.
Virginia Atkinson Chase	Margaret C. Lytle
Marie Dennig	David May
Adelaide Fullerton	Mr. and Mrs. Franklin Pierce
Rena Dula Gary	Nettie H. Rand

Sarah Waldheim Frank C. Rand David Sommers Judith Lydia Therne

Edgar Monsanto Queeny Isabella Bowman Wells

Sixth Floor Waiting Room: William K. Bixby

Room 603: In remembrance of Edwina Morse, 1879-1924

Room 604: Dedicated to Mary A. Castles by Margaret C. Vesper

Room 605: In memory of Mary Osborn Beach

Fifth Floor Nursery Wing: Paul Brown Nursery Wing

Fifth Floor Ward Beds, Roo	m 501, dedicated to:	
S. W. Adler	Orie C. Kotamy	Dinah Stix
Alice P. Campbell	N. O. Nelson	Mrs. Louise K. Tirrill
Inez Wade Childress	Sarah Dutton Nims	George O'Neil Williams

Fifth Floor 4-Bed Ward 502: Edward Mallinckrodt

Nursing Station on Fifth Floor: In memory of James Clark

Fifth Floor 4-Bed Ward 504: In memory of Mary Brookings Wallace

Fifth Floor Ward Beds. Room 505. dedicated to:

Mary Morton Clifford	Mary W. McKittrick	Jane Hordenbrook
Maggie L. Norton	Mary Frances Penney	Esther K. Stanard
Betty Hayes Pettingill	Leila M. Turner	Alice Lukens Solly
Fifth Floor Waiting Room: In	memory of Milton J. Moore	
Fifth Floor Nursery Beds:		

Helen Benoist CartonKate M. HowardGeorge Davis DanaJulia KimballWilliam Guilford DuncanJohn G. Lonsdale, Jr.

Harriet Barber Pflager Anna Merner Pleiffer Louis Renard

Operating Room: Dedicated to Doctor Fred J. Taussig by the Board of Directors of the St. Louis Maternity Hospital in appreciation of his interest and untiring work in behalf of this hospital.

Second Floor Ward 201: Dedicated to Annie M. Malone

Board Room: Dedicated to Mrs. Benoist Carton, President, by the Board of Directors of St. Louis Maternity Hospital in appreciation of her work in behalf of this hospital.



Maternity Hospital

OBSTETRICS AND GYNECOLOGY

BENEFACTION: At the same time that local citizens gave support for construction of a new Maternity Hospital, the General Education Board awarded an endowment to the University for establishment of a full-time department of obstetrics and gynecology.

ACCOMPLISHMENTS: Each year since 1927 the Maternity Hospital has served over 3,000 mothers and newborn infants. Many others have received medical care for various illnesses.

The accomplishments in teaching and research of the department of obstetrics have been many and varied, especially in the field of pathology and endocrinology.

The heads of the department have been

Dr. Henry Schwarz, 1899-1926

Dr. Otto Schwarz, 1926-1940

Dr. Willard M. Allen, 1940-----



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ROBERT S. BROOKINGS ENDOWMENT

The diagnosis of disease in the 1900's and 1910's was largely based on what the doctor could learn from the patient and what he could see and feel. With the development of the medical sciences, particularly bacteriology and chemistry, it became possible to carry out laboratory tests for the diagnosis of disease. For example, diabetes might be detected if a laboratory test showed a high percentage of sugar in the blood. Bacteria causing certain infections could be isolated in the laboratory, so that the infection could be treated with more certainty.

BENEFACTION: In order that this Medical Center might take advantage of these new developments in clinical medicine, especially as they relate to the use of the laboratory, Robert S. Brookings again joined with the General Education Board to establish an endowment for the departments of medicine and surgery known as the Robert S. Brookings Medical and Surgical Endowment Fund.

ACCOMPLISHMENT: Laboratory tests have become routine procedure in hospitals everywhere. Tests confirm the doctor's diagnosis, determine treatment, and guide research in fields where the cause of disease is yet unknown. Laboratory tests enable the doctor to make a more thorough physical examination, for a test may indicate the presence of disease of which the patient is as yet unaware.

The School of Medicine has staff members in the clinical departments whose primary interest is development of better methods of diagnosis. In the preclinical departments, others are pursuing research which will someday be the basis for more precise diagnosis.



Research Laboratory, Third Floor, North Building

OPHTHALMOLOGY AND OTOLARYNGOLOGY

MCMILLAN HOSPITAL

The growth of ophthalmology and otolaryngology reached a high point in the 1920's, and the natural result of that growth was the need for hospitals for teaching and research in these specialized fields.

BENEFACTION: Mrs. Eliza McMillan directed in her will in 1915 that the residue of her estate be used "to organize a department under which shall be established a hospital to be known as the McMillan Eye, Ear, Nose, and Throat Hospital." Mrs. McMillan had assisted in caring for those who needed professional attention during her lifetime and her will directed that "this work shall be carried on." The residuary estate came to the University in 1926, and was combined with gifts of other St. Louisans interested in the project. The cornerstone of the McMillan Hospital was laid on May 14, 1930.

Additional gifts were received from Mrs. Isabel Duncan, from the Shapleigh family, for whom the Shapleigh Ward in memory of Dr. John B. Shapleigh, head of otology from 1885 to 1922, was named, and from Mrs. Ella T. Shoemaker, for whom the Doctor and Mrs. John F. Shoemaker wards are designated. The Woodruff Clinic is the gift of Florence Holmes Woodruff and Dr. Frederick E. Woodruff, and the Sluder Clinic is in memory of Dr. Greenfield Sluder, head of laryngology and rhinology from 1905 to 1928. A gift from Commodore Louis D. Beaumont in 1942 enabled the University to complete the Hospital, and the Louis D. Beaumont operating suite on the second floor commemorates this gift. The Hospital was opened for patients on October 15, 1943, although the McMillan Clinics had been in operation since 1931 and 1932.

ACCOMPLISHMENT: The McMillan Hospital has admitted 28,471 patients since it was opened in 1943 and 25,053 operations have been performed.

OSCAR JOHNSON INSTITUTE

BENEFACTIONS: During the years 1928-1931, Mrs. Oscar Johnson and her sons, James Lee Johnson and Oscar Johnson, Jr., contributed a sum for the "erection of a coordinated building . . . which will consist of an institute of research and teaching in ophthalmology and otolaryngology and of the McMillan Eye, Ear, Nose, and Throat Hospital."

Additional gifts were received from Mrs. Isabel Keech, for whom the Keech Conference Room is named, from Mrs. Ella T. Shoemaker, from Mrs. Henry Elliot, for whom the Henry Elliot Auditorium is named, and from Mr. and Mrs. Horton Watkins.

The income from the Arthur E. Ewing Fund for the Care of Indigent Eye Patients is used primarily for patients hospitalized in the McMillan Hospital.

The J. F. Lindauer Memorial Fund was received by the University in 1937,

the income "to be used for hospital care of eye patients and the expenses of the Department of Ophthalmology."

BENEFACTION: At the same time that the McMillan Hospital and Oscar Johnson Institute was being planned, the General Education Board gave the University an endowment fund to establish the departments of ophthalmology and otolaryngology on a full-time basis.

ACCOMPLISHMENTS: Aside from the care of many patients in the hospital and clinic, the Oscar Johnson Institute has served as a center of research for ophthalmology and otolaryngology in particular, and for the entire Medical Center in general. In the five year period from 1944 to 1949 investigations in the Institute led to publication of over 100 papers in national medical journals.



McMillan Hospital-Oscar Johnson Institute

THE EDWARD MALLINCKRODT INSTITUTE OF RADIOLOGY

In the United States, some of the earliest applications to medicine of the newly-discovered X-ray were developed in St. Louis, where Doctors Ralph Walter Mills and Russell D. Carman carried on pioneer work in 1910. Dr. Carman soon left to become chief of radiology at the Mayo Clinic. Dr. Mills continued his studies in St. Louis, and an actinographic laboratory was established in the Medical School as a division of the department of surgery.

In the 1920's a group in the department of surgery, Dr. Evarts A. Graham, Dr. Warren H. Cole, Dr. Glover H. Copher, and Dr. Sherwood Moore developed a technique through which the visualization of the gall bladder by X-rays was made possible. This development, together with developments in other parts of the world, led to the establishment of a separate department of radiology.

BENEFACTION: Edward Mallinckrodt, Sr., and Edward Mallinckrodt, Jr., joined with the General Education Board to make possible the Edward Mallinckrodt Institute of Radiology.

ACCOMPLISHMENTS: From 1931, when the Institute was opened, through 1949, 369,537 patients received health care either for diagnosis or for treatment.

In 1938, the Institute constructed the first cyclotron in the world to be used exclusively for medical purposes. This cyclotron was used in the government's atomic program; with it, the first plutonium was made.

The research activities have led to the many technical improvements in apparatus for diagnosis, notably the laminagraph, with which a tumor inside the chest may be more accurately localized.

The directors of the Institute and professors of radiology have been

Dr. Sherwood Moore, 1931-1949 Dr. Hugh Wilson, 1949-----

ENDOWMENT FOR CLINICAL FACILITIES

A successful program of medical education requires not only faculty and students, lecture rooms and laboratories, but also hospitals which give medical care to those who are not able to pay.

The University holds two endowments for clinical facilities in surgery and pediatrics.

BENEFACTION: The Medical and Surgical Fund, pledged by the General Education Board at the time the Rand-Johnson Surgical Building was added to Barnes Hospital, was given to increase and endow the clinical facilities for surgery in the School of Medicine. The income is paid to Barnes Hospital. BENEFACTION: The Jennie Mallinckrodt Fund was given in 1916 by Edward Mallinckrodt for the support of the Jennie Mallinckrodt Ward in the St. Louis Children's Hospital.

ACCOMPLISHMENTS: These funds enable the hospitals to give necessary medical attention to those who cannot afford to pay. Wards for free and partfree patients are maintained in all of the hospitals owned by or affiliated with the University. Such wards also insure greater teaching facilities for students in the clinical subjects.



Edward Mallinckrodt Institute of Radiology

PSYCHIATRY

For this is the greatest error of our day—that physicians separate the soul from the body.

 $T_{\rm by\ Plato\ many\ centuries\ ago.}$

As the scientific medicine of the twentieth century developed, there was a tendency to focus attention on the more obvious causes of disease such as bacteria and viruses and to think largely in terms of physical ailments. This in turn has placed the emphasis on specialization.

Although these concepts have resulted in tremendous improvement in health care and extension of life expectancy, they leave a void in at least two aspects of health—diseases of the mind (psychiatry) and the influence of the mind on the body (psychosomatic medicine).

In the world of today the physician must learn to treat not only the physical symptoms of the patient, but also his whims, his peculiarities, his personality, his mind, and in fact, the entire person as a unit of body and mind. Mental disease is more apt to disorganize the home and community than is physical disease. Ignorance, poverty, and crime lay their blight on the mind far more than on the body.

There are more beds in public hospitals devoted to those who are mentally sick than to all classes of the physically sick combined. Education for care and prevention is a major problem of the future.

In order that the medical students at Washington University might have the opportunity to acquire this new viewpoint, a separate department of neuropsychiatry was established in 1938 with the aid of the Rockefeller Foundation.

BENEFACTION: To insure continuity of effort in this field, Mr. and Mrs. Wallace Renard placed with the University in 1941 an endowment fund for support of the Wallace Renard Professorship of Psychiatry.

BENEFACTION: The Thomas Whitman and Mary Louise Carter Memorial Fund was established in 1944 "to aid in developing and maintaining the staff, facilities, and activities at the highest attainable standards of the Department of Neuropsychiatry."

ACCOMPLISHMENTS: From the small beginning in 1938 the Department of Neuropsychiatry has grown to include varied activities. In 1947, a Child Guidance Clinic was opened and there are over one thousand visits a year of children and parents who secure assistance in solving the complexities of life. Psychosomatic medicine has become an integral part of the training of every physician. A program of research in both neurology and psychiatry has yielded important new information.

ENDOWMENT FOR GENERAL ACTIVITIES

A LTHOUGH much of the work of the School of Medicine can be categorized and provided for by special endowments in the fields of education, research, and service, there are many activities which touch all fields and all departments. These activities must be maintained with fees and unrestricted endowment and gifts.

BENEFACTION: A gift of Mr. R. H. Stockton in 1914 provided an endowment the income of which is available for general support of the School of Medicine.

BENEFACTION: Mr. Daniel Kirby, for many years a member of the Board of Directors of the University and Chairman of the Corporation committee for the School of Medicine, bequeathed in 1948 an endowment fund, "the annual net income of which shall be available . . . to aid in maintaining the general departments and purposes of the said School of Medicine."

In addition to these two specific endowments, the Board of Directors of the University have allocated to the School of Medicine the income from a certain part of the unrestricted endowment of the University.

ACCOMPLISHMENTS: Unrestricted funds are useful in meeting the changing needs in a medical school. One year Department X must have an additional staff member, another year it may be necessary to rehabilitate the rooms of Department Y, and still another year funds are needed for a large meeting of physicians in St. Louis.



Class in the Barnes Amphitheater

LABORATORIES AND ENDOWMENT FOR RESEARCH

It is generally believed that the teacher who is himself engaged in the search for new knowledge is best prepared to instill in the student the proper viewpoint and to pass on to him a contagious curiosity about the unknown. Therefore, in every educational institution, there should be time and effort devoted to research as well as to education. Each member of the staff should be provided with facilities and support to permit his originality free play in seeking new facts.

The Washington University School of Medicine has been fortunate in having some funds available for this purpose.

BENEFACTION: A bequest of Grace Shoop in 1936 provided an endowment, the income of which may be used for research in medicine.

BENEFACTION: An anonymous gift of a St. Louisan established in 1937 the "Fluid Science Research Endowment" to be used by the administrative officers for temporary support of investigations during critical periods when other funds are not available and the work might thereby suffer.

BENEFACTION: A bequest of Mr. Oscar C. Stupp in 1945 makes provision for an endowment fund, the income of which is to be used primarily for the study of deafness, and secondarily for other needed research.

BENEFACTION: A bequest of Mrs. Jessie Gair Meriwether created in 1946 in memory of her son the Lee Meriwether Endowment for the study of tuberculous meningitis.

BENEFACTION: The students and friends of Dr. W. McKim Marriott in 1936 established in his honor a fund for research in pediatrics.

BENEFACTION: The trustees of the estate of Lester N. Hofheimer awarded to Washington University in 1948 funds for the establishment of the Hofheimer Laboratory of Audiometry. This laboratory is an important part of the program of study of deafness in the department of otolaryngology.

BENEFACTION: The Damon Runyon Fund made a grant to the University in 1949 for purchase and installations of an electron microscope. This has been placed in a room designated as the Damon Runyan Laboratory of Electron Microscopy.

BENEFACTION: A bequest of Mrs. Laura Behrens in 1949 will provide an endowment, the income of which is to be used for research on diseases caused by viruses.

STRENGTHENING THE DEPARTMENTS

IN THE 1930's as in the 1920's the economic fluctuations in the United States brought the medical school face to face with a decision on the maintenance of a high quality of education and research. The Rockefeller Foundation pledged in 1937 an annual contribution for ten years in the hope that local support would become available. Public-minded St. Louisans gave to the University in the 1930's and 1940's endowments, the incomes of which have made, and will in the future make possible maintenance of a high quality of education and permit desirable expansion.

ENDOWMENT OF THE PRECLINICAL DEPARTMENTS

EDICINE may be divided into three phases: the medicine of today, which is practiced in hospitals and offices; the medicine of next year, which is under investigation in the laboratories of the clinical departments; and the medicine of the next decade, which is the basic research being done in the preclinical departments.

It is apparent that the continued increase in the quality of medical care rests on continued basic research. The endowment for the preclinical departments from a donor who asked to remain anonymous has given support to a fine teaching and research staff, which assures progress and augurs well for the medicine of the 1960's and 1970's.

THE JAMES THEODORE WALKER FUND

T HE development in the Mary Culver Department of Surgery of methods for the visualization of the gall bladder with x-rays (cholecystography), of the techniques for surgical operations in the chest and removal of a lung, and other important contributions pointed to Washington University and St. Louis as a leading center of surgery in the world.

Dr. Malvern B. Clopton in 1944 gave the University an endowment to be known as the James Theodore Walker Fund. The income is to be used primarily for surgery and secondarily for general support of the School of Medicine.

THE HENRY MALLINCKRODT PROFESSORSHIP OF ANESTHESIOLOGY

ONE of the more important developments of modern surgery has been improvement in methods for administration of those chemical agents (anesthetics) which induce unconsciousness or insensibility so that surgical operations can be performed. Only a few years ago the term anesthetic agent was almost synonymous with ether. Today there are many agents and varied methods of use, each designed to permit a particular type of operation.

In order that Washington University might participate in further developments in this field and in the training of personnel, Mr. and Mrs. Edward Mallinckrodt in 1948 established in memory of their son, the Henry Mallinckrodt Professorship of Anesthesiology.

THE HORTON WATKINS FUND

BECAUSE of the McMillan Hospital and Oscar Johnson Institute, Washington University has for many decades been a leader in the field of diseases of the eye, ear, nose, and throat. Mr. and Mrs. Horton Watkins contributed generously for the building of the Oscar Johnson Institute.

A bequest in the will of Mr. Watkins in 1949 provides an endowment fund, the income of which shall be used "for the benefit of the Oscar Johnson Institute of the Medical School of Washington University for research or clinical uses, or for work done or maintained by it . . ."

GERIATRICS

The strides made in the last fifty years in the control of infectious diseases have in part altered the problems of medicine. One of the more important new problems results from the extension of life expectantcy and the increased proportion of older people in the population. Geriatrics, the medical study of the aging process and the special problems of old age, becomes increasingly important.

The life expectancy (the age to which one of every two people may expect to live) for a white male child born in 1901 was 48.23 years. A white male child born in 1939 could expect to live 62.60 years, an increase of 14.37 years. This indicates an increase in the percentage of older persons in the total population. Since the diseases of older individuals are in part different from those of children or young adults, the kind of medical care needed differs.

On the other hand, the life expectancy of a person who had attained the age of 60 years has not been materially extended. A white man, age 65, had in 1901 a life expectancy of 14.35 years. In 1939, his life expectancy had increased to 14.36 years, an increase of four days. Thus a significant part of future medical research must be directed to maintenance of health and investigation into the cause and treatment of disease in the older person.

The two greatest life-taking diseases are heart disease and cancer. Hence,



PERCENTAGE OF POPULATION IN SPECIFIED AGE GROUPS, 1880-2000







From The United States Public Health Service Report

the School of Medicine has been developing facilities, opportunities, and staff for a major attack on these two diseases.

BENEFACTION: A bequest of Mrs. Irma Champ Urbauer in 1949 made available an endowment, the income of which is available for "research in geriatrics and allied fields."

ACCOMPLISHMENTS: Only a beginning has been made in developing our program of research in geriatrics. The activities of a number of staff members in this field are now assured of continuous support, and important new knowledge which will make life safer and more pleasant for an increasingly aging population should come from their studies.

CANCER

The extension of life expectancy has resulted in more people living to the age in which cancer is most frequent. There is also some evidence that certain cancers are more prevalent today than fifty years ago, notably cancer of the lung.

In recognition of the greater importance of cancer, the School of Medicine is developing a program for a broad attack—superior hospital and clinic care of those who have the disease; education of physicians, nurses, and others in prevention, diagnosis, and treatment, and research looking toward a better understanding of the nature of cancer and its prevention and cure. In the development of the program significant assistance has been given by the American Cancer Society and the National Cancer Institute.



Comparative Rank of Major Causes of Death From United States Public Health Service Report

At present there are four important parts of the program—The Cancer Research Laboratories, The David P. Wohl Jr. Memorial Hospital, The Barnard Free Skin and Cancer Hospital, and the Ida Jorgensen Finkelnburg and Emma Jorgensen Wernse Endowment Fund.

THE CANCER RESEARCH LABORATORIES

In terms of time there are three types of medicine—the medicine of today, the medicine of next year, and the medicine of the next decade.

The new Cancer Research Laboratories, now under construction, are planned as the place where the medicine of the next decade will be developed. It will be here that the basic problems of why and how some cells grow normally and other cells grow as a cancer may be studied.

The building, designed by Harris Armstrong, will join the present North and South Buildings and make available about 40,000 square feet of floor space for research laboratories. The building was made possible by a grant from the National Cancer Institute.

THE DAVID P. WOHL JR. MEMORIAL HOSPITAL

The extension of the knowledge gained in the research laboratory to the care of patients is the second part of the program. It has been made possible by the generous gifts of David P. Wohl and the Wohl Foundation, and the assistance of the National Cancer Institute.

The David P. Wohl Jr. Memorial Hospital will be located directly north of the Edward Mallinckrodt Institute of Radiology and east of the Nurses'



Artist's Sketch of the Cancer Research Laboratories

Home. The entrance will be across a broad bridge over the Wabash Railroad from Audubon Avenue.

In addition to sixty-six beds for patients, the hospital will provide adequate offices and research laboratories for the departments of medicine and surgery, and a new teaching amphitheatre. Plans are now being made by Jamieson and Spearl, and construction should be started in the spring of 1950.

THE EMMA JORGENSEN FINKELNBURG AND IDA JORGENSEN WERNSE ENDOWMENT FUND

A bequest of Ida Jorgensen Wernse came to the University in 1949, the income of which is to be used for cancer research. It is expected that a staff of able investigators will be assembled by the fall of 1950 to work in the new Cancer Research Laboratories under the direction of a leader in this field, Dr. Edmund Vincent Cowdry, who has since 1928 served as professor of anatomy. Dr. Cowdry will become a research professor and devote his entire time to investigation of cancer.

THE BARNARD FREE SKIN AND CANCER HOSPITAL

The Barnard Hospital, founded in 1906 under the leadership of Dr. Martin Engman, Sr., has rendered long and distinguished service to St. Louis and the surrounding area. In 1948 the directors concluded that this service could be extended if the Barnard Hospital joined the medical center on Kingshighway and affiliated with Washington University. Plans are now being pre-



pared for a new building which will be integrated with the David P. Wohl Jr. Memorial Hospital. Russell, Crowell, Mullgardt, and Schwarz are the architects.

George D. Barnard, Whose Benefaction Established the Barnard Free Skin and Cancer Hospital

REHABILITATION

It is not what a man has lost, but what he has left, that is important.

T HE aftermath of World War I and the crippling injuries of modern warfare served to focus the attention of the people of St. Louis on rehabilitation. It was soon realized that the problem was not only one which concerned veterans, but that a large number of civilians could benefit from a program of rehabilitation. It is estimated that one of every sixteen persons in the general population is partially disabled. This is one in seven of the potential male manpower of America. Ninety-seven per cent of all handicapped persons can be rehabilitated to the extent of gainful employment.

A building for Occupational Therapy at 4567 Scott was purchased in 1928 by the University, so that a beginning could be made in this field.

BENEFACTION: A bequest of Mrs. Rachel Stix Michael in 1936 established the Elias Michael Professorship of Occupational Therapy in the Washington University School of Medicine. Those who have held this position are

> Miss Josephine Lermet 1922-1946 Miss Sue Hurt 1946-1949 Miss Erna Rozmarynowski 1949-----

BENEFACTION: For many years the St. Louis School of Occupational and Recreational Therapy had operated as an independent institution loosely affiliated with Washington University. In the fall of 1945, the Board of Directors of the School gave to the University all assets, and the University undertook to carry on the educational program in occupational therapy.



Artist's Sketch of Rehabilitation Center

ACCOMPLISHMENTS: Over the years St. Louis has led in the field of rehabilitation. Graduates of the School of Occupational Therapy number 291 and are teaching and rendering service in all parts of the United States. A small School of Physical Therapy, conducted by the Barnes Hospital, was transferred to the University in 1948 and is being expanded. A division of physical medicine has been established in the School of Medicine and is now staffed with young, able physicians.

The renewed interest and emphasis on rehabilitation following World War II was largely initiated by a St. Louisan, Dr. Howard Rusk.

STUDENT AID

I NCLUDING the class of June, 1949, 3327 students have received their M.D. degrees since the union in 1899. Many of this number were able to complete their medical education because of the loans, scholarships, and fellowships which are available. The long period of time required for medical training means that a student from the average-income home must have help in financing his medical career. Endowment for scholarships is needed more than ever today when an increasing number of students have family responsibilities.

BENEFACTION: In 1930, the University received a gift designated in the will of Jackson Johnson to be used "to aid worthy and desirable students in acquiring and completing their medical education." During recent years, the income of this fund has been devoted to Honor Scholarships named for the donor as well as to fellowship and loan funds for needy students. The purpose of the scholarships is to encourage students of unusual ability to enter training for careers in medicine, regardless of financial resources.

Jackson Johnson Honor Scholarships are awarded on a regional basis with one or more scholarships being awarded annually to students from the Western, Rocky Mountain, North Central, South Central, Southeastern, Northeastern, and New England areas.

Emergency loans are available from the Jackson Johnson Fund for students in the upper three classes of the School, when needed to meet unexpected emergencies during the academic year.

ACCOMPLISHMENT: From 1937 until 1943 thirty-four students were named Jackson Johnson Scholars. Of this number eighteen, or fifty-three per cent, were graduated *cum laude*. The scholarships were discontinued during the war and given again in 1947.

BENEFACTIONS: The Jackson Johnson Fund is supplemented by other prizes and scholarships offered in special fields or in specific cases of need.

The Alexander Berg Prize is awarded to a student of high general standing who presents the best results in research in bacteriology. The gift was received in 1936. The Medical School Alumni Association founded a scholarship fund in 1916 which has since received additional gifts from alumni. The Alumni Scholarship Award provides that income from these gifts be applied on the payment of the tuition fee of a student who has excelled in the work of the preceding year and who has been recommended by the President of the Medical Alumni Association and the Committee on Loans and Scholarships.

The Biochemistry Prize, received in 1947, is awarded at the end of the first year to the member of the class who has demonstrated superior scholarship in biochemical work.

The T. Griswold Comstock Scholarships were established through the bequest of Mrs. Marilla E. Comstock, who died April, 1928. The income from the bequest 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.

A bequest of Matilda Gill, acquired in 1933, provides a fund for the maintenance of the George F. Gill Scholarship and Prizes. The Scholarship, instituted in memory of a former clinical professor of pediatrics, entitles the holder to a refund on his tuition fee. One prize is awarded to the member of the freshman class who has demonstrated superior scholarship in anatomy. One prize is awarded to a senior who has shown especially good scholarship in the department of pediatrics.

Acting on behalf of the Medical Fund Society, Dr. R. J. Terry in 1947 turned over to Washington University a permanent endowment fund to be known as the Prize Fund of the Medical Fund Society. The fund income each year is used to award prizes to two senior students, one for excellence in the study of internal medicine, the other, for outstanding work in surgery.

Through the bequest of the late Dr. Joseph H. Scharf, the annual income from his gift is available for scholarships for worthy and needy students in the School of Medicine.

From a bequest of Dr. John B. Shapleigh in 1926, supplemented by contributions from the late 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.

Through the gift of Mrs. Joseph H. Roblee in March, 1938, the income from the Robert Allen Roblee Scholarship Endowment Fund provides one or more scholarships for qualified, worthy, and deserving students.

ACCOMPLISHMENTS: The scholarships, fellowships, and loans provide necessary financial aid for a student who has already completed at least three years of college work and who must yet finance four years of medical school training, a year's internship, with an additional two to three years training for specialization. The student receives relatively no compensation for this five-year training period. Prizes provide additional aid and also serve to give recognition for work capably done.

LIBRARIES AND LECTURESHIPS

A PART of a complete educational program in a medical school is an opportunity to read the work and opinions of others and to hear leaders in the field speak. Hence, in the School of Medicine libraries must be available which will give the student easy access to standard works and current periodicals, and provision must be made for visiting lectureships.

The Library of the School of Medicine was reorganized in the fall of 1910, though it originated many years before, when the Medical Fund Society acquired the libraries of the St. Louis Medical and Missouri Medical Colleges. When Dr. George Dock, Chairman of the library committee from 1910 to 1922, took charge, there was a nucleus of some 3,000 volumes. When he retired in 1922, the accessions numbered over 33,000.

The Beaumont Collection of manuscripts, a collection including the textbooks of the pioneer American physiologist, Dr. William Beaumont, was given to the Medical School by his granddaughter, Miss L. Beaumont Irwin, in 1914. The Library also has the Pagel collection on the history of medicine, the John Green and Adolf Alt libraries on ophthalmology, the John Shapleigh library on otology, the W. E. Fischel collection on internal medicine, the library of F. J. Lutz on surgery, and the Greenfield Sluder library on otolaryngology.



Reading Room, Library of the School of Medicine

BENEFACTIONS: Endowments which make possible in part the maintenance of a library and the bringing of distinguished physicians for lectures in the St. Louis area are the following:

The John B. Shapleigh Library, an endowment for "the purchase of books and periodicals which may be necessary and desirable for the Otological Research Library" was given by Mrs. Anna Shapleigh in 1937.

The Robert J. Terry Lectureship. The lectureship was given by the alumni of the medical school in 1938 "for the purpose of fostering greater appreciation of the study of human anatomy in relation to the teaching and practice of medicine." Dr. Terry became professor emeritus in 1941 after having been associated with the school since 1895 when he was on the staff of the Missouri Medical College.

The M. G. Seelig Lectureship. The Seelig Lecture, an annual lecture sponsored by the School of Medicine, was established by friends of Dr. and Mrs. Major G. Seelig when the Seeligs moved to California. Dr. Seelig became professor emeritus of clinical surgery in 1946 after 27 years on the staff of the School of Medicine.

ACCOMPLISHMENTS: The library of the Washington University School of Medicine is tenth in size among all medical school libraries in the United States and nineteenth in size among all medical libraries. With the exception of the medical libraries in Chicago, the Washington University medical library is the largest in the South and Midwest. During the past year (June 30, 1948 to July 1, 1949) the library lent 1852 books to ninety-four other libraries in this area and in the South and Southwest. Circulation here among students and faculty numbered 29,648. The library contained, as of June 30, 1949, 69,514 bound volumes and received 821 journals.

The first M. G. Seelig Lectureship was given in 1948-49 by Dr. Edwin P. Lehman, professor of surgery, University of Virginia. Dr. Paul Weiss, professor of zoology, University of Chicago, presented the 1948-49 Robert J. Terry Lecture.

THE FUTURE

I N THE Report of the Chancellor of Washington University for 1948-1949 Mr. Compton makes the following statement:

We are entering upon a period in which improvement in quality is our prime concern. Our educational needs are affected by mounting international tensions, by the growing complexities of society, and by progressive changes in our population. These trends all lay an increasing emphasis on an adequate supply of educated leaders. Our university's first task is thus to do our share in meeting that need. We must strengthen those aspects of our program that are concerned with developing responsible leadership and initiative.

The School of Medicine in planning a part in this contribution of Washington University to society has before it the objective of quality. All developments of the Medical Center are focused on providing opportunities for promising young men and women to prepare themselves for responsible positions in society. Some of the projects which are in the planning stage and would significantly improve the quality of the educational program are the following:

STUDENTS AND FACULTY. The university of today is the same meeting place for those who are hungry for knowledge as it was in the early medieval times. A university is only as great as its faculty and student body. Leaders are needed to train leaders, and those who elect to devote themselves to academic pursuits either as teachers or students must not be denied the chance nor be penalized for the decision. The able boy or girl should be given opportunities regardless of economic or social status. Endowment for general support of the school and for scholarships will insure equal opportunities in a free society.

AN EDUCATIONAL DORMITORY. In the past fifty years medical education in the United States has been improved largely by provision of opportunities and facilities for the school day, the time from nine until five o'clock. The next step is a similar improvement of opportunities and facilities for the time from five until nine o'clock, facilities which would provide a place for students and faculty to live together in an atmosphere of scholarship.

PREVENTIVE MEDICINE AND PUBLIC HEALTH. To hold the gains of the last fifty years in the control of disease and to take advantage of the new knowledge of the future, medical students must be trained in various phases of preventive medicine and public health. The ultimate goal of medicine is not the cure of disease, but the more positive objective of preservation of health. In 1942, a department of preventive medicine and public health was established in the School of Medicine. To continue and expand this department, endowment and adequate quarters for its activities are needed. The ideal would be a public health unit at the School operated in cooperation with the City, in which teaching, research, and service could go hand in hand. PSYCHIATRY. One of the most pressing needs of modern society is personnel—physicians, nurses, psychologists, and social workers—to help those who become confused in the attempt to solve the complexities of modern society. The University Medical Center is an ideal place to train these professional workers, but such training requires staff and physical facilities. Adequate endowment is needed to provide an able staff of teachers and investigators and a hospital of 100 beds which would give superior care to patients who are mentally ill, while providing training for medical students, psychologists, and social workers.

REHABILITATION. St. Louis and Washington University have always led in the field of rehabilitation. The expanded concepts in 1950 of what rehabilitation can do for society in terms of happiness and welfare press for recognition and utilization. A combined clinic and school of occupational and physical therapy would provide service to the community and stamp St. Louis as a leader in the application of human values to medical care.

HEART DISEASE. The first ranking cause of death in the United States today is heart disease—congenital, rheumatic, hypertensive, and arteriosclerotic. Soon a program should be formulated which would be comparable to the cancer program in scope. The same basic components are needed—endowment and building.

INDUSTRIAL MEDICINE. The complexities of modern industrial operations and the utilization of many new chemicals require research and control. Greater and greater numbers of physicians must be trained to take their places in the industrial world.

DERMATOLOGY. The affiliation of the University with the Barnard Free Skin and Cancer Hospital and the erection of a new Barnard Hospital in the medical center present unusual opportunities to develop a strong program of research and teaching on diseases of the skin.

NEUROLOGY. The distinction of many members of the faculty in the study of the nervous system is well known. Dr. Joseph Erlanger and Dr. Herbert Gasser were awarded the Nobel Prize for basic studies on nerves at the School of Medicine. Strengthening of this important phase of study might well lead to significant developments.

HOSPITAL AND CLINIC FACILITIES. To provide an educational program of high quality in medicine, hospitals with a minimum total of seven beds for each junior and senior student are needed. The Washington University School of Medicine has about 200 junior and senior students and about 900 beds in the affiliated and University owned hospitals. New construction now contemplated will add not more than 250 to a total of 1150, still 250 less than the desired number. Specifically, additional beds in the Maternity Hospital are needed. Dormitory-type hospitals will contribute to convalescence and reduce the cost of medical care. The increasing importance of chemotherapy in the treatment of all diseases means that more beds will be needed for all types of patients. A unit for the short-term treatment of those with tuberculosis would give educational opportunities not now available in the Medical Center.

RESEARCH. New knowledge is the life blood of society and new knowledge comes from research. Support of research is an investment in the welfare of future generations. Who would have guessed twenty years ago that research on a chemical in some types of stored alfalfa would be of direct benefit to those who suffer from heart attacks, or that the accidental contamination of a culture of bacteria would end in the saving of thousands of lives with penicillin? But, research is expensive. Special apparatus and equipment are needed. Most important, skilled and trained staff must have the continuity of effort necessary for productive work.



Plastic Model of the Medical Center Showing Present Buildings and Future Additions