

N.I.H.



record

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

May 31, 1955 - Vol. VII, No. 10

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH

NIH--A QUARTER OF A CENTURY



THEN AND NOW ... An aerial view of NIH in 1930 encompasses far fewer buildings than are seen today.

Photo by The Washington Star

For the last quarter century of its existence, the research arm of the Public Health Service has been known as NIH. Twenty-five years ago on May 26, the President of the United States approved an Act "to establish and operate a National Institute of Health." Thus the Hygienic Laboratory, with a history dating back to 1887, was renamed, expanded, and rededicated in the newly developing national health structure.

NIH IN 1930

The past twenty-five years have been marked by such growth that the NIH of 1955 bears little physical resemblance to that of 1930. When the Hygienic Laboratory was designated NIH, the 130-member staff was housed in four buildings on a five-acre tract at 25th and E Streets, N.W., adjacent to its traditional neighbor, the Naval Hospital. Research was carried on in the four divisions of the Institute--pathology and bacteriology, zoology, pharmacology, and chemistry. Many of these studies in nutrition, infectious and parasitic diseases, biologics

control, and sugar chemistry provided the basis for the enlargement of the structure of NIH, in tradition, accomplishment, and personnel.

THE MOVE TO BETHESDA

Five years after the establishment of NIH, Mr. and Mrs. Luke I. Wilson dedicated to medical research the first 45 of the total 90 acres of the Bethesda reservation. The Administration Building and Buildings 2 and 3 were constructed soon afterward. In 1937 Congress authorized the first of the National Institutes--Cancer, which moved into Building 6 in September of 1939. Between 1937 and 1942, Buildings 4, 5, 9, 8, T-6, and the Officers' Quarters were erected.

POSTWAR EXPANSION

The problems of World War II required tremendous expansion of fundamental medical research in this country. The momentum was continued after the war when Congress increased the appropriations and made funds available for aid to

medical research on a nationwide basis through research grants. To accomplish the basic objectives, the Surgeon General established the Division of Research Grants, the Clinical Center, and six new research institutes--Heart, Microbiological, Dental Research, Mental Health, Neurological Diseases and Blindness, and Arthritis and Metabolic Diseases.

To keep pace with the growing structure of NIH, additional tracts of land were purchased, increasing the size of the Bethesda reservation to its present total of 305 acres. The Memorial Laboratory (Building 7) was completed in 1946, and construction was started soon afterward on the Clinical Center and the service buildings.

NIH TODAY

With the opening of the Clinical Center in 1953, NIH entered a new period of expansion--both in scope of research and in physical size. Today approximately 850 research projects are under way at NIH, while more than 3350 are being

(See History, Page 4)

Profile of an NIH Scientist

Highly esteemed not only by the NIH staff, but also by the scientific world, Dr. Charles Armstrong has helped shape the history of NIH.

Since joining the Public Health Service in 1916, he has gained a wealth of experience in bacterial, virus, and other infectious diseases. Dr. Armstrong retired from his post as Chief of NMI's Laboratory of Infectious Diseases in 1950, but he continues to work, daily and most weekends, on a voluntary basis. He is presently studying the etiology of cat scratch disease. His jovial personality has endeared him to his co-workers, who would like him to remain here many more years.

Every study he has undertaken since his first assignment to NIH in 1921 (then the Hygienic Laboratory) has resulted in a major contribution to health or medical knowledge. Determined to uncover the mysteries of several infectious diseases, Dr. Armstrong sometimes risked his life. As a result of field and laboratory research, he contracted severe cases of malaria, dengue fever, psittacosis, encephalitis, Q fever, and tularemia.

Among the first to demonstrate the virus etiology of St. Louis encephalitis, Dr. Armstrong in 1934 isolated for the first time the virus he named "lymphocytic choriomeningitis," and worked out its epidemiology by showing the natural reservoir to be house mice.

In 1939 he made a major contribution to the study of poliomyelitis by his successful adaptation of the Lansing strain of human poliomyelitis virus to rodents. With this adaptation accomplished for the first time, it was now possible to use large numbers of mice with the Lansing strain in types of experiments that previously required monkeys.

An outbreak of psittacosis, or "parrot fever," led to his appointment to head a full-scale study in 1929. Despite elaborate precautions to prevent the spread of the disease, Dr. Armstrong and several laboratory workers became ill; his assistant died. This perilous situation led to the temporary halting of the work and closing of the Hygienic Laboratory for the first time in its history. After resuming the work, a



Dr. Charles Armstrong

filterable virus was found to cause the disease. Dr. Armstrong's field work supplied the data for the presidential order issued in 1930 prohibiting the importation of psittacine birds into the United States unless subjected to regulations.

Among his other important scientific contributions are as follows: the brilliant and timely demonstration that several cases of post-vaccination tetanus were due to tetanus spores in the glue of bunion pads employed as vaccination dressings; further findings that led to a campaign against the use of vaccination dressings or shields; epidemiological and laboratory proof that commercially canned olives had induced severe and fatal botulism, resulting in a revamping of canning methods.

Dr. Armstrong was born in Alliance, Ohio, and in 1910 was graduated from Mount Union College. To finance his medical school expenses, he worked during summer vacations digging trolley postholes with a railroad construction gang, assembling car couplers in a foundry, and teaching biology and geology at his alma mater. After receiving his M.D. in 1915 from Johns Hopkins University, he served his internship at the New Haven, Conn., General Hospital, where he read a bulletin board announcement of PHS examinations.

Dr. Armstrong lives in Chevy Chase with his wife, Bess, and their daughter, Mary Emma, a teacher in the Rosemary Elementary School.

TWENTY-FIVE YEARS OF RESEARCH PROGRESS

Over the past twenty-five years, the contributions of NIH to medical research have been numerous and far-reaching. NIH and its predecessor, the Hygienic Laboratory, contributed much of the knowledge of infectious and nutritional diseases that has helped add more than 20 years to the average life expectancy in this country since 1900. In more recent years, NIH scientists have concentrated on developing needed *fundamental knowledge and techniques*. These may some day lead to solution of the problems that have become the principal causes of death and disability--namely, the chronic diseases. A brief listing of some of the highlights of NIH research accomplishment since 1930 follows.

Advances against the infectious and nutritional diseases include the discovery of several new diseases--Louisiana pneumonitis, lymphocytic choriomeningitis, rickettsialpox, and arboflavivirus; the development of effective vaccines for Rocky Mountain spotted fever, typhus, and mumps; and improvements in the existing vaccines for yellow fever and rabies. NIH scientists contributed important knowledge of Q fever and St. Louis encephalitis.

Other NIH workers were the first to synthesize several morphine substitutes, a group of amino and fatty acids, and a compound five times as potent as progesterone for use in certain forms of cancer. Pioneer screening studies have yielded antimalarials, tumor-damaging compounds, and drugs for alleviation of hypertension.

Important diagnostic procedures have been developed for amebiasis, trichinosis, and rheumatoid arthritis. Notable advances have been made in the study of basic body processes, such as carbohydrate metabolism, transamination, nucleic acid synthesis, cellular respiration, brain and nerve function. NIH investigators have also worked out the metabolic pathways of histidine and histamine, have identified new vitamins, and have been leaders in the field of sugar chemistry.

Other "famous firsts" in NIH history include the demonstration that fluorides in drinking water reduce the incidence of dental caries; the transformation of normal mammalian cells--grown in tissue culture--into cancer cells; and visualization of the internal structure of a molecule by means of the electron microscope. Still others are the first demonstration of the life-prolonging action of salt solution in the treatment of shock in experimental animals; transmission of poliomyelitis virus to mice; studies of chemical carcinogens; and the experimental production of gastrointestinal cancer in animals.

Pictorial Highlights of the Past 25 Years



The North Building of the Hygienic Laboratory, forerunner of NIH.



Mrs. Luke I. Wilson waves from a steamshovel cab at NIH groundbreaking ceremonies.



The late President Franklin D. Roosevelt speaks at dedication, Oct. 31, 1940.



Former NIH Directors - Dr. George W. McCoy (1915-37), Dr. Lewis R. Thompson (1937-42), and Dr. Rolla E. Dyer (1942-50).



The Clinical Center is added. Left, former President Harry S. Truman, Surgeon General Leonard A. Scheele, and Contractor John McShain at cornerstone ceremonies June 22, 1951. Right, Secretary Oveta Culp Hobby is greeted by Dr. Sebrell prior to dedication July 2, 1953, while Dr. Scheele, Rev. Frederick Brown Harris, U. S. Senate Chaplain, and Mr. Nelson A. Rockefeller, former HEW Under Secretary, look on.



R & W NOTES

Those Hamsters have done it again. "Dollars and No Sense," the latest version of Life at NIH, proved to be a worthy successor to the past productions and packed in full houses each night of the performance. Cleverly written and well staged, the production was notable for the singing, dancing, and acting talents of the cast. All connected with the production should be congratulated for their efforts.

A flyer was recently sent out detailing plans for the formation of an NIH Archery Club. The meetings will be held the first Wednesday of each month, and practice sessions will be on Wednesday evenings during the summer. Everyone interested in joining should contact Donald Holmes on ext. 2387.

Watch the mails for an announcement of the new 24-hour film developing service.

Dr. Scow is Awarded Guggenheim Fellowship

Dr. Robert O. Scow, Endocrinologist in NIAMD's Laboratory of Biochemistry and Nutrition, has been awarded a John Simon Guggenheim Memorial Foundation fellowship. He has been working with Dr. Bernardo A. Houssay, 1947 Nobel Prize winner, in Buenos Aires, Argentina, since last November, acquiring specialized research training in the field of diabetes. The award will enable him to continue these studies.

Appoint James Welch Asst. Fire Marshal

Appointment of James R. Welch as Assistant Fire Marshal was made effective May 9. He will assist the Fire Marshal in the over-all fire prevention and fire fighting program for NIH, with specific responsibility for fire prevention and inspection of the Clinical Center.

Mr. Welch had been employed by General Services Administration as a Fire Fighter at the Virginia Area Fire Station, Fort Myer, Va., since November 1953. Since June 1951 he has been Fire Chief of the Chillum-Adelphi Volunteer Fire Department, which he helped organize. He lives in Hyattsville.

Dr. Reid, Mrs. Shannon Will Retire on May 30

On May 30 Dr. Mary E. Reid, NIAMD biologist, will retire after completing 22 years of Federal employment, and Mrs. Josephine G. Shannon, Employee Health Unit nurse, will end 27 years of PHS service.

Dr. Reid, who is in the Laboratory of Biochemistry and Nutrition, is recognized as an outstanding authority in the fields of vitamin C metabolism and guinea pig nutrition. She came to NIH in 1936 from the Department of Agriculture. Born in Oconomowoc, Wis., she received her B.A. and Ph.D. from the University of Wisconsin, and did post-doctorate work at Yale University and the Boyce Thompson Institute, Yonkers, N. Y. She lives in Hyattsville, and, after retirement, plans to take a short vacation, after which she will continue research.

Mrs. Shannon came to NIH in 1949 from the Bureau of Medical Services. She first became a Public Health Service nurse in 1919, after returning from duty in France with the U. S. Army Nurse Corps. In 1930 she resigned to be married, and in 1939 rejoined PHS. Born in Cumberland, Md., Mrs. Shannon completed nurse training at Glens Falls Hospital, New York. Now living in Georgetown with her sister, Claire Gaffney, a retired PHS nurse, Mrs. Shannon plans to leave soon for Carmel, Calif., with her daughter, Dottie. She also has a son, Jerry, in the U. S. Army.

HISTORY Cont'd

supported by NIH grants in research institutions the country over. Total personnel at Bethesda and at field stations in various parts of the world now numbers 4856. After twenty-five years, NIH has become one of the world's largest and most productive institutions devoted entirely to research in the medical and related sciences.

N. I. H. RECORD

Published by
Scientific Reports Branch
National Institutes of Health
Room 116, Building 1
Bethesda 14, Maryland
OLiver 6-4000 Ext. 2125

LOST AND FOUND



Felt hat	Tie clasp
Corduroy jacket	Leather gloves
Necklace	Md. tag EJ-81-69

The above articles may be seen in the Guard Office, Room 119, Building 1, and those listed below in the Guard Office, Room 1A-06, Building 10.

Man's hat	Brooch
Raincoat	Pocket watch
Glasses	Notebook

USDA SUMMER SCHOOL

Registration for summer classes at the Graduate School of the U. S. Department of Agriculture will be conducted June 6 - 11, in Room 1031, South Agriculture Building. Copies of the Summer Schedule of Classes are available in Room 1N-242, Bldg. 10.

MILLS NAMED NIMH EXECUTIVE OFFICER

Charles E. Mills, Special Consultant to NIH since August 1954, entered on duty as NIMH Executive Officer on May 2. He came here after completing an assignment as management consultant for the Hoover Commission Organization of the Executive Branch of the Government.

Prior to his last position, he was a resident manager for the Washington office of a management consultant firm, and from August 1951 to June 1953 served as Budget Advisor and then Deputy Assistant Administrator for operations of the Economic Stabilization Agency. His government experience began in 1935 with the Farm Credit Administration.

During World War II he directed a personnel program for major civilian war agencies in the Office for Emergency Management for two years, then served three years in the U. S. Navy. After his discharge, he joined the Department of States Associate Chief of the Division of Foreign Service Planning. Later he became a Foreign Service Reserve Officer, with duty stations in Greece and Lebanon.

Mr. Mills graduated from the University of Illinois, and received his M.A. from the University of Wisconsin.