

Obituaries

Lucius Franklin Badger

1893-1972

Lucius Franklin Badger, M.D., a retired career officer of the U.S. Public Health Service, died on December 9, 1972 at the age of 79.

A native of Groveland, New York, he received the A.B. degree from Carleton College in 1916 and his M.D. degree from the University of Minnesota Medical School in 1921. Shortly after medical school he joined the commissioned corps of the U.S. Public Health Service. After serving several years in community health work in California, he was transferred in 1925 to Honolulu, Hawaii. Under Dr. Newton E. Wayson, the Director of the U.S. Laboratory for the Investigation of Leprosy, he studied clinical leprosy thoroughly in the pre-sulfone era and was introduced to research in leprosy. With Wayson he reported on the oral use of chaulmoogra oil and abnormalities of carbohydrate metabolism in leprosy. In a well documented study he showed that in the absence of any evidence of syphilis, the sera of many leprosy patients gave strongly positive Wassermann and Kahn reactions. At that time leprosy as a cause of false positive serologic reactions for syphilis had not been widely accepted.

In 1930 he was transferred to the National Institute of Health, Washington, D.C., where he joined Dr. R. E. Dyer, Dr. A. Rumreich and others in intensive original studies that served to identify the eastern type of Rocky Mountain Spotted Fever and to separate it etiologically and immunologically from endemic typhus. He was author or co-author of many papers on rickettsial diseases. He found time, however, to continue his interest in leprosy by studying and reporting the effect of vitamin B₁ deficiency in murine leprosy.

Because of Dr. Badger's sustained interest in leprosy he returned to Honolulu



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in 1935 as director of the laboratory where he had formerly served as a junior officer under Dr. Wayson. Shortly after returning to Honolulu he isolated from wild rats a strain of murine leprosy, now known as the Hawaiian strain, which has been used by many investigators around the world and by Dr. Y. T. Chang at the National Institutes of Health since 1950.

On being reassigned to the National Institute of Health in 1939, he continued research on murine leprosy, but after appointment as its assistant director in 1943, he had little time to pursue his interest in leprosy.

In 1950 he returned to full-time work in leprosy as the first director of the Leprosy

Control Section of the Communicable Disease Center, Atlanta, Georgia. Until his retirement seven years later, he made intensive studies on the epidemiology of leprosy in the United States.

As consultant to the Leonard Wood Memorial, in 1951 he accompanied Dr. J. A. Doull to Japan, the Philippines and South Africa to put into operation the now well-known Clinical Evaluation Studies of the Leonard Wood Memorial to test in approximately 960 lepromatous patients in Japan, the Philippines and South Africa the effectiveness of sulfone therapy. He was a very active participant in the Clinical Working Conference of this study held in Japan in 1952 under the auspices of the Leonard Wood Memorial and the Japanese Ministry of Health and Welfare.

Much of Dr. Badger's activity in the Communicable Disease Center consisted in studying the histories of patients at the U.S. Public Health Service Hospital at Carville, La., and examining their family contacts. From the data obtained he concluded that the epidemiologic characteristics of leprosy in the United States differed markedly from those reported from other geographic areas. He found that more than half of the patients admitted to Carville had become infected as adults. His studies indicated that in the United States the higher prevalence in males was related to the opportunity for exposure rather than increased susceptibility due to sex, and that, because the majority of the patients in Carville had not been aware of any contact with leprosy, prolonged intimate exposure apparently had not been a factor in their infection.

Dr. Badger was greatly concerned that in the post-World War II period very little basic research in leprosy was being supported by the U.S. Government; therefore in 1953 he persuaded the U.S. Public Health Service to establish a Research Committee for Leprosy. This committee, composed of Dr. Badger and several other U.S. Public Health Service officers who were experienced in leprosy succeeded in reviving and stimulating basic research in leprosy in the United States. Growing out

of recommendations of this committee was the initiation of projects in transmission of leprosy to animals in the laboratories in the Communicable Disease Center in Chamblee, Georgia, and Montgomery, Alabama. In the Montgomery laboratory, Dr. Charles C. Shepard began his now famous experiments that culminated in the use of the mouse foot pad for the multiplication of *Mycobacterium leprae*.

A significant action by this committee, of which Dr. Badger was an enthusiastic member, was the planning and conducting in 1956 and 1958 of conferences on Progress and Potentials in Leprosy Research at Carville, La. In these conferences there was enthusiastic participation not only by scientists working in leprosy but by scientists in other fields who were invited so that they could learn the problems in leprosy research and suggest new avenues. The revived interest in leprosy stimulated by this committee, and the inclusion of scientists not working in leprosy, were continued in the Leonard Wood Memorial—Johns Hopkins University Symposium on Leprosy Research held in Baltimore in 1961 and the Leonard Wood Memorial—Armed Forces Institute of Pathology Conference on Research Problems in Leprosy held in Washington in 1965. Dr. Badger, therefore, by his insistence in 1953 that the U.S. Public Health Service establish the Committee on Leprosy Research, and by his sustained work with this committee, played a major role in broadening and accelerating leprosy research in the United States. The high scientific level which leprosy research in the United States had attained, made it possible in 1965 for its scientists to accept immediately the new responsibilities and opportunities afforded by the establishment of a U.S. Panel on Leprosy that joined with a Japanese Panel on Leprosy in promoting major research programs in leprosy.

Dr. Badger's warm friendliness, his ready wit and his dedication to scientific research in leprosy and other fields gained him a wide circle of friends in the United States and around the world.

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