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KARL FRIEDRICH MEYER (1884-1974)

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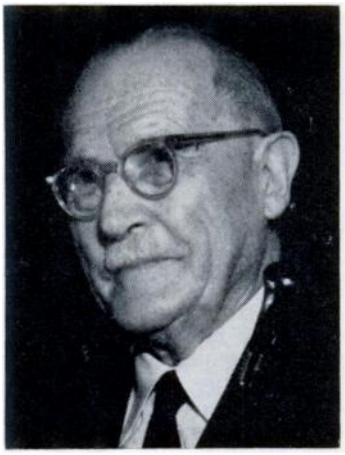
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Karl Friedrich Meyer

(1884 - 1974)

It is fitting, at a meeting devoted to wildlife diseases, and especially at a symposium on plague and other Yersinioses, that we pause in tribute to Dr. K. F. Meyer.

Born in 1884, in Basel, Switzerland, K. F. was educated at the University of Zurich, receiving a D.V.M. in 1909, and a Ph.D. in 1924. He was the recipient of 9 honorary degrees and was most proud of an honorary M.D. awarded by the University of Zurich in 1937.

After working in South Africa, K.F. came to the U.S.A. in 1910, and taught at the University of Pennsylvania. In 1914, K. F. went to the University of California as Professor of Bacteriology and Experimental Pathology, becoming Director of the George Williams Hooper Foundation for Medical Research, which under his direction, rapidly became known throughout the world as a center for study in public health and epidemiology.

In a truly amazing career, K. F. became one of our most influential and distinguished scientific leaders. His work, as extensively reviewed in a superb biographical sketch prepared by his friend and colleague, Dr. James Steele, touched on almost every area concerned with public health, and resultetd in over 800 publications.

During the course of his studies which were vigorously pursued until the last few weeks of his life, K. F. made major contributions to the problems associated with the control of botulism, encephalitis, mussel poisoning, ornithosis, plague, and many other tropical diseases. As noted by another friend and student, Dr. E. B. Shaw, "K. F. would have won a Nobel Prize if he hadn't worked on so many areas of discovery that nobody could keep track of all that he was doing."

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[1] Memorial address read at the annual conference of the Wildlife Disease Association, Asilomar, California, July, 1974. The conference was dedicated to the memory of Dr. Meyer.

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Perhaps the area in which K. F. made is greatest contribution is that of plague. His interest in this disease stemmed from his early student days in Switzerland. Plague was a very active field of research at that time. A great plague pandemic was in progress, and British India was the scene of yearly epidemics that were, before the disease subsided, to claim the lives of more than 13 million human beings. Exciting discoveries concerning the disease were published with great frequency, the plague bacillus was isolated and described, and the role of insect vectors from rodent reservoirs was just beginning to be investigated. His frequent contacts with investigators actively involved in plague research reinforced his desire to study the disease. His post at the University of California afforded the opportunity.

The next 60 years were to be characterized by the constant progress of K. F. and his colleagues in solving many of the problems associated with all aspects of this most ancient disease. His demonstration that plague could be effectively treated by antibiotics has saved many lives, and he developed the plague vaccine that is now in use by the Armed Forces of the United States.

While K. F. studied all aspects of plague with equal intensity, his invaluable contributions to our knowledge on the ecology and epidemiology of sylvatic plague should be of greatest interest to this group. When K. F. arrived in California, his early impressions and basic knowledge of plague were broadened and matured by his association with Dr. George McCoy, then stationed in the U.S. Public Health Service Laboratry in California. Engaged in methodically unraveling the complex interplay between wild rodents and commensal rats, McCoy made available all the facts known at that time.

Methods of discovering the existence of occult plague had not been developed, and early attempts to understand explosive local epizootics remained shrouded in mystery. The presence of the disease in the wild rodent population, however, created a problem of some magnitude at the time. Plague was a dangerous disease, and effective therapy was unknown. Although epidemics of bubonic plague could be controlled to some extent, inter-human plague pneumonia was always a potential threat. It was during this period, when two explosive epidemics of pneumonic plague occurred in California, that a firm commitment to study the ecology of plague was made.

A broad-based approach, following the new concepts outlined by Charles Elton, a pioneer ecologist, was applied to the problems presented by the presence of plague in wild rodents living near the boundaries of large cities. Hard, methodical work in the field and laboratory soon provided answers to some of the mysteries. This period in K. F.'s life was characterized by a flood of publications from the George Williams Hooper Foundation concerning a then new disease, sylvatic plague. Through these studies, it was determined that sylvatic plague persisted in a reservoir of numerous species of wild rodents. These rodents were infested with their characteristic species of fleas, and some of these species of fleas were far more efficient vectors than others—a condition that could be evaluated in the laboratory. Exhausting and dangerous experiments on plague-infected rodents and fleas resulted in classical publications on "The Fate of *P. pestis* in the Flea", "The Known and Unknown in Plague," and many other topics elucidating the complex nature of plague ecology. It was soon possible to demonstrate that each plague focus is characterized by definite ecologic peculiarities in fauna, topography, climate, and vegetation. In fact, such peculiarities became so well characterized that when the assembly was recognized, it could be predicted that if plague did not already exist

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in a given locale, it could find ideal support for its existence if it were to be introduced. These contributions are held by those charged with the surveillance and control of plague to be some of the most important K. F. has made.

In the course of his work, K. F. became established as a unique authority on all matters pertaining to plague. His background in the history of the disease, the knowledge and expertise that developed through the years from his own experience, and his associations with the other early plague workers were always immediately available to anyone. He will be missed, not only as a grand old man of science, but as a warm human being, who has been a firm and steadfast friend of all of us committed to the study of zoonotic diseases.

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DISTINGUISHED SERVICE AWARD — 1974



Harald Norlin Johnson

At its annual banquet held at Asilomar, California on the evening of 2 August 1974, the Wildlife Disease Association presented its Distinguished Service Award to Harald Norlin Johnson.

Dr. Johnson was born in Loomis, Nebraska, 31 March 1907. He received his B.S. degree from University of Nebraska in 1930; M.A., 1932; and M.D., 1933. He has been a member of the WDA since the mid-50's, was a key speaker at the

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