

James Batcheller Sumner

November 19, 1887 — August 12, 1955

James B. Sumner, Professor Emeritus of Biochemistry and Director of the Laboratory of Enzyme Chemistry until his retirement on July 1, 1955, died of cancer on Friday, August 12, 1955, at the Roswell Park Memorial Institute, Buffalo, New York. He is survived by his wife, Mary Morrison Beyer Sumner and five children. His untimely death removed from the Cornell scene one of its most distinguished scientists and colorful personalities. His 41 years as a teacher and an outstanding exponent of individual research at Cornell were marked by exciting and revolutionary discoveries. His crystallization of the first enzyme, urease, and masterful defense of its nature, has been credited with being the most significant advancement in the field of biochemistry of the first half century. This accomplishment was recognized by the award of the Nobel Prize in Chemistry in 1946.

Professor Sumner was born in Canton, Massachusetts, on November 19, 1887. He received his A.B. Degree from Harvard College in 1910, A.M. in 1911, and Ph.D. in 1914. He taught chemistry for one term each at Mt. Allison College, Sackville, New Brunswick, and Worcester Polytechnic Institute at Worcester, Massachusetts, prior to entering the graduate school at Harvard. In the fall of 1914 he accepted an invitation to become assistant professor of biochemistry at the Cornell Medical College at Ithaca. He taught medical students and home economics students at Cornell for fifteen years as assistant professor, and was made a full professor in 1929. He became a member of the College of Agriculture Faculty in 1939.

Much could be written concerning Professor Sumner's scientific and academic career. At seventeen he lost his left arm in a hunting accident. Having been left-handed, it became necessary for him to learn to do things with his right hand. This loss led him to exert every effort to excel in all sorts of sports such as tennis, skiing, skating, billiards, and clay-pigeon shooting. It also deeply influenced his highly independent personality and his strong desire for personal accomplishment and recognition in his field. In an interview with Professor Otto Folin concerning graduate work in biochemistry at Harvard, he was advised to take up law, since "a one-armed man could not make a success at chemistry." In spite of such discouraging advice he persisted in his goal and carried the same type of determination in his first major research effort—to isolate and crystallize an enzyme. This also was considered to be an impossible task by leading biochemists of that era. The lack of recognition of his paper announcing the crystallization of the enzyme, urease, and the severe criticism of his research by the leading German biochemists, Willstätter, Pringsheim, Waldshmid-Leitz, and Steigerwaldt, was a bitter experience. His courage in defending his

research results, however, was surely instrumental in shifting biochemical thinking concerning enzymes from the old German Träger theory to the proved observation that enzymes are proteins.

Immediate success and national recognition was not the lot of Dr. Sumner. His earliest honors were conferred in Sweden by the award of the Scheele Medal in 1929 and later by election to the Polish Institute of Arts and Science. The Nobel Prize in Chemistry came in 1946, and election to the National Academy of Sciences in 1948.

The development of research and of teaching in biochemistry at Cornell was synonymous with Dr. Sumner's 41 years as teacher and research worker. There is some doubt that a Department of Biochemistry would have been established in the College of Agriculture at Cornell except for the desire to retain Professor Sumner within the Cornell community. In this instance the subject was of much less importance than the individual. A common expression until recent years was "Biochemistry at Cornell (Ithaca) is James B. Sumner." Professor Sumner's lasting contributions are embodied in his more than 100 published research papers, his basic textbook, "Chemistry and Methods of Enzymes," and his authorship with Karl Myrbäck of the two-volume, four-part classic, "The Enzymes", which immediately gained worldwide recognition.

In 1921 he spent his sabbatical leave at the University of Belgium as a Belgium-American Fellow, in 1929 at the University of Stockholm, and in 1937 as a Guggenheim Fellow at the University of Upsala, Sweden. Professor Sumner reached the pinnacle in his field and left a solid foundation for future scientists to guide them in the understanding of the fundamental forces governing all living things. Cornell recognized these contributions when a special symposium on biochemistry was held in his honor on May 25-26, 1955.

W. L. Nelson, C. M. McCay, J. M. Sherman