

In Memoriam

Roger J. Williams — 1893-1988

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Roger John Williams, renowned for his work in biochemistry and nutrition, died at the age of 94 on February 20, 1988, of pneumonia at a nursing home in Austin, Texas. In this city he had lived for the previous 49 years, teaching, investigating, directing the research of others, writing extensively, and earning for himself the status of a truly great man, for which he was showered with honours.

Details of his life and professional career may be found in a number of biographical dictionaries. Here I shall emphasize aspects of his life and personality as I came to know them from the time I took his undergraduate course in biochemistry in the early 1940s to closer association with him over the past 14 years as my wife Marguerite assisted him with his later publications.

Roger J. Williams was born in Ootacumund, India, on August 14, 1893. His parents were Baptist missionaries, and a strongly religious feeling marked Roger all his life, tempered by humanism and rationalism. His older brother, Robert R. Williams, also born in India is known for his studies on the relation of thiamin to beriberi. Roger followed in Robert's footsteps but eventually outshone him.

Roger began his study of a "Bios" growth factor for yeast in Chicago, where he received his Ph.D. from the University of Chicago in 1919 and started his professional career working for the Fleischmann Corporation in 1920. The isolation, structural determination, and synthesis of pantothenic acid spanned over two decades.

Meanwhile, he taught at the University of Oregon, where he became a full professor in 1929, and at the Oregon State University, which he left in 1939 to come to the University of Texas at Austin. His first book, an organic chemistry text of 1928, was adopted by over 300 colleges and

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*August 1979 - Photo by John Windsor
University Studios, Austin, Texas
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universities in its first year.

At the University of Texas he shortly founded the Clayton Foundation Biochemical Institute and served as its director from 1940 to 1963, inspiring research on a great number of vitamins, on microbiological tests for their occurrence in foods and tissues, on the discovery and naming of folic acid, on the segregation of biotin by avidin in eggwhite, and on related matters, especially on the relation of inadequate nutrition to disease.

Despite "retiring" as a professor emeritus of chemistry in 1971, Williams remained an active research scientist of the Biochemical Institute until 1985. He wrote extensively, publishing some 275 articles and 22 books, the last of which will appear this year.

Roger early emphasized the teamwork of the B vitamins and the necessity of adequate

intake of each of the 40 or so essential nutrients. He developed the concept of biochemical individuality, based ultimately on genetics and leading to his "geneto-trophic" concept of disease. Each human being has individual nutritional needs, which must be met for optimal health. Williams felt that the subject of nutrition was not adequately covered in medical education. In later years, this concern broadened to education in general, and his books took on a more philosophical tone as they departed from nutrition *per se*.

Williams sought the opinions of others by sending copies of each of his manuscripts to 100 or so selected persons. Once he had the criticisms, he would consider it with care but more often than not reject it, because he held strongly to his own carefully thought-out views. The criticism often surfaced later, reworked, and it was customary for him to rewrite his papers and books up to the last minute, when they were

already in press. On occasion he sent his publications to heads of state including Reagan and Gorbachov when he thought their operations were susceptible to improvement.

With age, he became legally blind with macular degeneration and relied on others to read to him and transcribe his almost illegible scribble. Nevertheless, he had a photographic memory of what he had written and what he had read when he could see, and in later years he seemed to possess an auditory analogue of this eidetic imagery.

Roger Williams did not take nutritional supplements himself until relatively late in life, and his intake was always modest. But his keen interest made him a willing subject, and even after his 94th birthday he voluntarily had himself bundled up and carried to a physician's office for testing of his cardiac output, as he was the oldest subject in his friend Karl Folkers' studies on coenzyme Q10.