

Teddy G. Traylor, distinguished UCSD professor of chemistry, died

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Teddy G. Traylor, a distinguished professor of chemistry at the University of California, San Diego, died of cancer Monday, June 14 at the UCSD Medical Center in Hillcrest. He was 68.

Prof. Traylor joined UCSD from Harvard University in 1961 as an assistant professor, the first to receive such an appointment at the university.

Although he was considered a creative genius in his field, Prof. Traylor never graduated from high school. Following a stint in the merchant marines and U.S. Army Air Force during World War II, he was accepted to Pepperdine College and later transferred to UCLA, where he received a bachelor's degree in chemistry and a Ph.D. in organic chemistry.

Colleagues said he proudly displayed his grade school graduation certificate, the highest continuous degree he earned.

Much of his work revolved around a field of chemistry called biomimetic chemistry, which Prof. Traylor helped to pioneer. The goal of the field is to understand how biochemical reactions work in living systems, and to mimic the catalytic behavior of nature with synthetic compounds.

Prof. Traylor's lab focused on understanding the mode of action of various proteins in living systems that contain iron porphyrins. In mammals, these include hemoglobins and myoglobins, which transport oxygen in blood and muscle respectively, and enzymes such as the cytochromes P-450 that use oxygen to generate energy and carry out other metabolic processes. In the liver and other glands, the cytochromes P-450 oxidize or break down toxins and drugs, and help to make alcohols needed in synthesizing compounds such as steroids that the body requires.

Using insights gained from their studies of biological enzymes, Prof. Traylor and his lab developed the first catalysts that can efficiently convert hydrocarbons to industrially useful alcohols in a single step. Hydrocarbons from oil and other petrochemicals are the basic source materials for alcohols and other chemical intermediates used in manufacturing synthetics such as nylons, specialty chemicals and drugs.

Prof. Traylor, who was born in Sulphur, Oklahoma, went to work for Dow Chemical Co. in Pittsburg, Calif. as a senior researcher for seven years after completing his studies at UCLA. He was then accepted as an NIH Postdoctoral Fellow at Harvard University in 1959, where he worked with Prof. Paul D. Bartlett until September 1961.

At UCSD, he was awarded a UC President's grant for innovative projects in university instruction in 1971, and served as department chairman from 1973-1976. He received a fellowship in 1976 from the John Simon Guggenheim Memorial Foundation, and was awarded the Fogarty Senior International Fellowship from the National Institutes of Health in 1982 and 1989. He was a Philips Lecturer at Haverford College, a fellow of the Japan Society for the Promotion of Science, and Distinguished Visiting Professor at the University of Alberta. In

addition to publishing nearly 200 papers, Prof. Traylor was on the Board of Editors of Inorganic Chemistry. He trained about 80 of his associates as chemistry researchers.

Outside of academia, Prof. Traylor enjoyed singing and acting. Prior to joining UCSD, he appeared in San Francisco and Berkeley in such performances as "The Mikado," "Patience," and "The Gondoliers;" in "Brigadoon" in Michigan; and in "The Mikado," "Kiss Me Kate," and "The Taming of the Shrew" in Cambridge, Mass.

Prof. Traylor is survived by his wife, Patricia, a chemistry professor at the University of San Diego with whom he collaborated; and six children, Tony Traylor, Carla Griswold, Peggy Baldwin, Leslie Windle, David Traylor and Pamina Traylor.

Services will be private. Donations are being accepted by the UCSD Foundation for a Teddy Traylor Fellowship in Chemical Sciences.

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