

**MEMORIAL RESOLUTION OF THE FACULTY  
OF THE UNIVERSITY OF WISCONSIN-MADISON**

**ON THE DEATH OF PROFESSOR EMERITUS EDWARD J. SCHANTZ**

Edward J. Schantz, one of UW's most respected biochemists and toxicologists, died April 28, 2005 in Madison at the age of 96. Ed was born August 27, 1908 in Hartford, Wisconsin, and grew up on a dairy farm near Sparta. He earned a bachelor's degree from the UW-Madison in biochemistry and a master's degree from Iowa State University, and he returned for his doctorate from UW-Madison in 1939 under the direction of Professor E. B. Hart.

Ed told us many stories of his educational experiences at UW. Among the most memorable ones were the arguments and fist-fights between professors Conrad Elvehjem and Harry Steenbock over disparate scientific issues, as well as the friendlier snowball fights among the faculty and students in biochemistry during the 1930s.

Following graduation, Ed Schantz worked for the Carnation Milk Company and then served in the Army during World War II and remained as an Army research officer for more than 20 years. From 1944 to 1971 he worked as a biochemist for the U.S. government, where he was the chief of the chemistry department at the Biological Research Center, Camp "Fort" Detrick, Maryland. At Fort Detrick, Ed developed procedures for purification in crystalline form of botulinum toxin type A – the most poisonous substance known to humankind and the cause of botulism. He worked in concealed units such as the Black Maria at Fort Detrick. As a direct result of his work, the drug known as Botox is now used, along with similar drugs, to treat more than one-hundred disease indications including facial paralysis, spasmodic afflictions, musician's and writer's cramps, pain syndromes including chronic and migraine headaches, as well as its renowned cosmetic use in the treatment of "wrinkles" and "crow's feet." Ed was also the discoverer of saxitoxin or "red tide poison" in mollusks, and he made several journeys to Alaska and the northern Pacific regions to collect mussels and clams and extract and assay for the toxins in a rudimentary laboratory housed on a boat. Ed also contributed much to our understanding of staphylococcal toxins.

In 1972, following the closing by President Nixon of the "biological warfare" units at Fort Detrick, Schantz accepted from Edwin M. "Mike" Foster an offer for a professorship in the Food Research Institute at UW, where he conducted research and continued his meticulous methods for producing the finest preparations of botulinum toxin. Ed continued to come into the lab everyday well into his late 80s.

In 1975, Ed testified in the U.S. Senate to a committee chaired by Senator Frank Church on the "puzzlement of poisons." His testimony centered around the involvement and interest of the CIA in biological toxins including botulinum neurotoxins, saxitoxin, and staphylococcal enterotoxins. The testimony encompassed their toxicity to humans and animals and capabilities for their production. Despite the negative connotations regarding biological toxins, Ed remained a staunch advocate of the positive use of toxins in cell biology and in medicine.

Modest and unassuming, Schantz received little financial reward for his work. He generously distributed botulinum toxin at no cost to hundreds of investigators throughout the world. This unselfish provision of toxin led to many key discoveries in neurology and toxicology, including the use of botulinum toxin as an extremely important medicine.

In a UW publication following his death, WARF stated that its reluctance to patent botulinum toxin as a medicine influenced its patenting strategies whereby the foundation became inclined to take more risks.

Ed and Katherine Schantz generously donated money to the UW Foundation, providing funds for fellowships in food microbiology and toxicology.

Schantz is survived by five children, six grandchildren and two great-grandchildren, his sister Jane, and many nieces and nephews. He was preceded in death by his wife of 58 years, Katharine Lee, and a daughter, Mary Jane.

The fields of biochemistry, neurology and medicine have been enriched remarkably by Edward J. Schantz's contributions. He is remembered fondly and with the greatest respect by his colleagues and disciples.

MEMORIAL COMMITTEE

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