OBITUARY

A. DOUGLAS MCLAREN (1917–1979)

A. DOUGLAS MCLAREN, Founding Editor of Photochemistry and Photobiology, emeritus professor and pioneer researcher in photobiology and soil biology at the University of California, Berkeley, died 21 January, 1979, at his home in Inverness, California. He was widely known as a scholar, teacher and scientific investigator whose strong curiosity and considerable intellectual talents led him along many paths of endeavor and gained for him widespread recognition for his achievements.

Born 27 September, 1917, in Ipava, Illinois, McLaren earned a B.A. at Park College in 1939, continued his studies at St. Louis University, and in 1943 was awarded a Ph.D. in organic chemistry at the University of Missouri, where he studied with Professor C. E. Marshall.

During World War II he conducted polymer research at E. I. DuPont de Nemours and Company in Buffalo. He began his teaching career at Brooklyn Polytechnic Institute, where he established an early reputation for pioneering research in the physical chemistry of polymers during the period from 1946–1951.

McLaren joined the UC faculty in Berkeley in 1951 when the Department of Soil and Plant Nutrition was seeking a soil scientist with a strong background in chemistry. He was recommended to UC by Selman Waksman, the renowned microbiologist and Nobel Laureate. His appointment was as a professor of soil biology, reflecting a continuing shift of his interests to biological problems.

McLaren is credited with a major role in catalyzing the upsurge of interest in the 1960’s in the developing field of photobiology. By starting the Journal Photochemistry and Photobiology in 1962, he helped to give focus to the research in a young and rapidly growing...
field. The treatise entitled “Photochemistry of Proteins and Nucleic Acids”, which he co-authored with David Shugar, did much to set standards and directions in the field (e.g. it gave action spectra a sound theoretical basis). It was a classic at the time (1964), and is still a very useful text.

McLaren’s early work at the University of California, Berkeley, concentrated on the photochemistry of proteins (especially on the mechanisms for the ultraviolet radiation-inactivation of enzymes), and on the photobiology of tobacco mosaic virus (especially the action spectra of the virus and its infectious nucleic acid, and the role of the encapsulating proteins in protecting the viral nucleic acid from photochemical inactivation). Doug played a major role in the early development of both of these fields, and made many key discoveries.

For many years McLaren taught a course on colloid chemistry in the College of Natural Resources at the University of California, Berkeley. His knowledge of this area eventually led him to shift his research to the colloidal properties of soil, and soil as a vehicle for chemical and biochemical reactions. He conducted experiments with soil systems as models of immobilized enzymes that act in multi-step processes. He wrote experimental and theoretical articles on the significance of the colloidal charge properties of soil organic matter as a vehicle for the absorption of catalytic components and as a microenvironment in which optimum reactivity differed from that of the bulk environment. His quantitative analysis of reactions, particularly the oxidation of ammonia to nitrate in soil systems, represents investigations of fundamental importance to the understanding of nitrogen cycles in soil, providing a basis of knowledge in the areas of nitrification and microbial physiology, so important in the world today for increasing agricultural productivity.

McLaren was frequently a visiting professor at other universities. He was awarded a Fulbright fellowship which took him to the University of Sydney, Australia, in 1959, and was a Guggenheim Fellow in 1966 at the Rothamsted Experimental Station in England. He was a visiting professor at the Tuskegee Institute in 1968, and was a trustee of the Starr King School of the Ministry.

In addition to his professional academic interests, McLaren had a love of English literature, was a student of European history, a lover of music, an admirer of nature and an amateur archer. In his last years, suffering with lateral sclerosis, he spent many hours at his home in Inverness watching and identifying the birds that came and went with the changing tides. It was in conversation with a friend at that time that Doug McLaren commented; “If you are going to run downhill, you might as well run gracefully”. He did.

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