

MEMORIAL RESOLUTION

RONALD GRANT (1910 – 1987)

Ronald Grant, Professor Emeritus of Physiology at the School of Medicine died on the 21st of December at his home in Portola Valley, after a prolonged illness. He is survived by his beloved Chloe Gartner and by his brother, Dr. Alan Grant of Guys Hospital in London.

Though he was born in Cuddington, England, he always identified with his Scottish forebears. And so it was that after he obtained his B.Sc. in Zoology in 1930, he pursued graduate studies at the University of Edinburgh, graduating with a Ph.D. in Physiology and Genetics in 1933. After graduation, he was appointed Demonstrator and then Lecturer in Zoology at the University of Leeds. This was followed by a Commonwealth Fund Postdoctoral Fellowship from 1935-37 at the University of Chicago with the distinguished reproductive physiologist, Carl Moore; and subsequently at Columbia University with Lester G. Barth. In 1937, Ronald accepted a position as lecturer and subsequently Assistant Professor of Physiology at McGill University, Montreal, where he remained until 1947. At that time he moved to Stanford, rising from Research Associate in 1947 to Professor of Physiology in 1957.

Ronald was a model of modesty and integrity. He was keen to help others, a quality which was reflected in his teaching, which he pursued with much energy and dedication. He excelled particularly in small group teaching and will be remembered by the skill and pride which he brought to his demonstrations in the physiology laboratory. A major contribution was his introduction of the B.A. in Physiology which he directed for many years. He was Acting Chairman of the Department of Physiology during 1963-64.

Among his accolades were first class honors in his B.Sc. at London University, and a fellowship of the Royal Society of Edinburgh (1934). He was a member of Sigma Xi, the British Association of Zoologists, British Society for Experimental Biology, American Society of Zoologists, Society for the Study of Development and Growth, Canadian Physiological Society, American Physiological Society, and the Society for Experimental Biology and Medicine. He was a scientific consultant for the New York Cancer Research Institute and was granted a Guggenheim Fellowship at Karolinska Institute, Stockholm (1955-56).

Dr. Grant's interests were legion and his research activities extended from field research in fisheries (1930-43) to central nervous system electrophysiology. His major interest since his period at McGill, however, was central autonomic regulatory mechanisms, with special reference to temperature regulation and fever.

His publications include studies on effects of pyrogens, drugs and toxins; effects of thyroidectomy and adrenalectomy on electrical activity and functional responses of the central nervous system, especially in the autonomic regulatory sphere; central autonomic control of circulation; respiratory rhythm and the adrenal medulla; significance of catecholamines in CNS function, especially autonomic control; neural basis of self-stimulatory behavior in rats;

significance of the septal area of the forebrain relative to aggressive behavior and endocrine and respiratory function; role of the habenular nuclei in respiratory and endocrine function; effects of fever on renal function and electrolyte-water handling; and impaired learning ability of monkeys with unilateral lesions in the association cortex.

Ronald was first to show that the febrile reaction to bacterial toxins involves an initial effect of blood elements with toxins forming an "endogenous pyrogen" (1952). This reaction product, not the foreign toxin, was found to be the immediate cause of disturbed temperature regulation and other febrile reactions. It has since been shown that endogenous pyrogen, now known as Interleukin-1, is a causal link in most, perhaps all fevers.

Ronald Grant was one of the last general physiologists in a world of extreme specialization. But if he was respected for his breadth and integrative capacities, he will be remembered just as much by students and colleagues for his dry humor and warm hospitality on those brunches with Chloe on the deck in Los Trancos Woods.

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