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Cover Legend

Contemporary optimism regarding the solution of the cancer problem rests to a great extent on the application to oncology of scientific advances in immunology and virology. In turn, oncology is making contributions to immunology and virology.

The founders of modern immunology are F. M. Burnet and P. B. Medawar, who shared in the 1960 Nobel Prize in Medicine and Physiology “for their discovery of acquired immunological tolerance.”

Frank Macfarlane Burnet (bottom) was born at Traralgon, Victoria, Australia, on September 3, 1899. He completed his medical course at Melbourne University, graduating M.B., B.S., in 1922 and M.D. in 1923.

His first research work on the agglutinin reactions in typhoid fever was begun in the Walter and Eliza Hall Institute of the Melbourne Hospital in 1923 and, except for periods overseas, all his professional career was in the Hall Institute, of which he was Director from 1944 to 1965.

In 1926-1927 he worked at the Lister Institute, London, and in 1932–1933 he was at the National Institute for Medical Research, Hampstead, England.

Burnet’s work has covered several fields but, until 1957, was primarily concerned with viral and rickettsial disease with special interest in influenza virus. He has had a continuing interest in immunology since his early work on staphylococcal toxin and antitoxin and is well known for his formulation of the clonal selection theory of antibody production.

Since retirement in 1965 he has been a guest professor in the School of Microbiology, University of Melbourne. In addition to a continuing interest in immunology, especially in its application to cancer and aging, he has become deeply concerned with the social implications of science and has written two nontechnical books, Changing Patterns (autobiography) and Dominant Mammal.

Burnet was married to Linda Druce in 1928. They have 1 son and 2 daughters. He has visited America frequently in recent years and is an Honorary Fellow of the American College of Physicians and a Foreign Associate of the National Academy of Sciences.

He was knighted in 1951, receiving the O.M. (Order of Merit) in 1958 and K.B.E. (Knight Commander of the Order of British Empire) in 1969.

Peter Brian Medawar (top) was born on February 28, 1915, in Rio de Janeiro, Brazil, the son of a naturalized British subject. He studied zoology at Oxford University and after graduation began his research at the School of Pathology at Oxford. In 1944 he became a University Lecturer in zoology at Oxford, but he left three years later to assume the post of Mason Professor of Zoology at the University of Birmingham. He continued his earlier work at Oxford on the mechanism of skin graft reactions in Birmingham with studies of acquired tolerance to skin grafts in cattle. In 1951 Medawar went to University College, London, as the Jodrell Professor of Zoology. In 1962 Medawar was appointed to his position as the director of the National Institute for Medical Research, Mill Hill, London. He was elected to the Royal Society in 1949 and received its Royal Medal in 1959. He received the C.H. (Companionship of Honor) in 1972. He has written books, entitled The Uniqueness of the Individual, The Future of Man, and The Hope of Progress.

Medawar was married to Jean Shinglewood Taylor in 1937; they have 2 sons and 2 daughters. He has been a frequent visitor to the United States and has given series of lectures at Harvard, Cornell, and University of California, Berkeley; he is an honorary foreign member or Associate of the National Academy of Science, the American Philosophical Society, and the New York Academy of Sciences.


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