SIR WALTER BODMER

Sir Walter Bodmer FRSE is one of the world’s leading geneticists. He was born in Frankfurt am Main in 1936, the son of a Jewish doctor, who, because of the Nazi persecution, was compelled to flee the land of his birth. Manchester benefited from the move, gaining an understanding family doctor; the United Kingdom benefited by gaining a young citizen, who was to become an outstanding scientist.

From Manchester Grammar School he won a scholarship to Cambridge to study mathematics and it was his intention to continue with statistics. The accidental death by drowning of Professor Wishart, under whom Bodmer would have done his PhD, led him to turn to R A Fisher, who was then Professor of Genetics at Cambridge, and who is recognized as the father of both modern statistics and of the theory of experimental design, as well as a co-founder, with JBS Haldane and Sewall Wright, of the mathematical theory of evolution. Bodmer became Research Fellow of Clare College and demonstrator in the Genetics Department. Publications written during his Cambridge years range from the purely statistical to others on theoretical genetics, which were pioneering works in this field.

Sir Walter has written, ‘My problem as a research student in genetics at Cambridge was that I had no biological background. That meant that I not only had to learn about DNA’s structure but also about modern molecular biology and its involvement with moulds, bacteria and viruses.’ To rectify this he crossed the Atlantic to Stanford University in order to work with Joshua Lederberg, a leading molecular geneticist who had already won the Nobel Prize for his discoveries. Bodmer became Professor in the Department of Genetics in 1968. It was during this time that his work on human cells grown in tissue culture became consolidated and led to the mapping of genes to specific chromosomes and to the study of gene function, particularly as it relates to cancer.

At this time he also became interested in the specific tissue types which characterize all individuals and which were important in the matching of recipients for organ transplantation, in particular the kidney. It was Walter Bodmer, ably assisted by his scientific wife, Julia, who discovered many of these genes and who, by skilful analysis of laboratory data, unravelled the complexities of this genetic system, known as the HLA or major histocompatibility (MHC) system.

Walter and Julia Bodmer played a major role in helping international cooperation between scientists by organising regular international workshops. These meetings led to rapid progress in the field and provided a model for scientists who find themselves faced by a similar challenge. Sir Walter’s leadership in the Human Genome Organization (HUGO), of which he was President from 1990 to 1992, is facilitating international cooperation in the world-wide project to write The Book of Man, as he called the mapping of the human genome, the blueprint which characterizes the human species.
In 1970, Walter Bodmer was part of the reverse brain drain when he left Stanford to take up the post of Professor of Genetics at the University of Oxford. After nine years he moved to London as Director of Research of the Imperial Cancer Research Fund (ICRF) and from 1991 to 1996 as Director-General. In 1996 he returned to Oxford to become Principal of Hertford College and Head of the ICRF Cancer and Immunogenetics laboratory at the world famous Oxford Institute of Molecular Medicine. He has been Chancellor of the University of Salford since 1995.

He is author of several hundred research papers and his books include, jointly with others The Genetics of Human Populations; Our Future Inheritance; Choice or Chance; Genetics Evolution and Man; and The Book of Man.

In recognition of his outstanding contribution to science, the University takes great pleasure in conferring upon Sir Walter Bodmer it highest accolade, the degree of Doctor of Science, honoris causa.

HERBERT BASIL SUTTON COOKE

Herbert Basil Sutton Cooke was born in Johannesburg in 1915, and attended King Edward VII School. He began his university career in chemical engineering at the University of the Witwatersrand, but this was interrupted when the opportunity arose to take an honours degree in geology at the University of Cambridge.

After his return to South Africa to take up a position as field geologist with the Central Mining and Investment Corporation, he accepted an appointment at Wits in 1938 to teach ‘hard rock’ geology, but at the same time his interest in Quaternary geology expanded. He was one of the first geologists to undertake a study of rocks of the Sterkfontein caves where two years earlier Dr Robert Broom had discovered the first fossils of an adult australopithecine. Later, in collaboration with Lawrence Wells, Cooke undertook a pioneering study of the geology, stratigraphy and palaeontology of the Makapansgat hominid site.

In 1939 Cooke and Hamilton produced their famous textbook entitled Geology for South African Students; used by thousands of geology students in South Africa, the book has been through several editions. In 1947 Basil Cooke went as principal geologist on the University of California African expedition to the Oligocene fossil beds of the Faiyum in Egypt, and in the Miocene deposits in western Turkana in Kenya. On his return to Johannesburg he worked as a consulting geologist, specialising in base metals. He was awarded a Doctor of Science degree by the University of the Witwatersrand. At that time he played a major role in starting the journal South African Science as a monthly periodical, but, after two years, it assumed the old name of its predecessor, South African Journal of Science, and Cooke continued to edit it for ten years.

Basil Cooke was the first person to undertake the ambitious and visionary task of reconstructing the changing palaeogeography and palaeoenvironments of South Africa through successive geological ages and he also set about applying radiometric age determinations to the stratigraphic succession.

He returned to academia and to Wits in 1953, when he was appointed senior lecturer in the Geology Department. Two years later he was awarded a Royal Society/Nuffield Foundation bursary to study fossil material in England, followed by a year at the Museum of Palaeontology at the University of California, Berkeley. In 1958 he became Reader in Stratigraphic Geology at Wits in recognition of his outstanding academic contributions, not only in the field of geology, but also in palaeontology and Quaternary palaeoenvironments.

The Cooke family emigrated to Canada in 1961 when Cooke was offered a Associate Professorship in Geology at Dalhousie University. It was there that he worked at dating the hominid-bearing cave deposits of South Africa by faunal comparisons with the rich and better dated record of East Africa, since radiometric dating of the dolomitic cave deposits of South Africa had proved successful.

Cooke's fossil work proved to be useful for inter-site correlation, and for long provided one of the most reliable methods of age determination of the early South African hominid-bearing