Distinguished Visitor Programme

Prof Mark Walport
Head, Rheumatology Section, Royal Postgraduate Medical School at Hammersmith Hospital

Biography

Prof Mark Jeremy Walport was born in London in 1953 and trained at Cambridge (BA, 1974, MB BChir 1977, PhD 1986), and at the Middlesex Hospital Medical School. After training as a junior doctor at Hammersmith, Guy's and the Brompton Hospitals, he returned to Cambridge as an MRC Training Fellow in the MRC Mechanisms in Tumour Immunity Unit. He has been at Hammersmith Hospital since 1985, as Head of the Rheumatology Section in the Royal Postgraduate Medical School. He was appointed Head of the Division of Medicine at Imperial College of Science, Technology and Medicine in 1997. His clinical and research interests focus on immunology and the genetics of rheumatic diseases.

Professor Walport is Registrar of the Academy of Medical Sciences and a member of the British Council Health Committee. He was previously a member of the Scientific Coordinating Committee of the Arthritis Research Campaign (1992-2000) and of the Council of the British Society for Rheumatology (1989-1995). He was Vice-Dean of the Royal Postgraduate Medical School (1994-1997), Director of Research and Development at the Hammersmith Hospitals Trust (1994-1998), and chairman of the Hammersmith and Queen Charlotte's Hospitals Research Ethics Committee (1990-1994). Professor Walport won the Roche Rheumatology Prize in 1991 and the Graham Bull Prize in Clinical Science (Royal College of Physicians) in 1996. He is a coauthor of Immunobiology: the Immune System in Health and Disease, Editor of Clinical and Experimental Immunology, and is a series editor of the British Medical Bulletin. Now he is one of the new governors of Wellcome Trust, together with Prof. J.O. Thomas and Prof. A. P. Bird.

Mark Walport, head of the division of medicine has been appointed one of three new Governors of the Wellcome Trust on 1 October 2000.

Mark Walport resigned from the editorial position of Clinical and Experimental Immunology Journal as he was no longer able to devote sufficient time to the Journal due to his appointment as Governor of the Wellcome Trust.
Lecture Abstract

31 Jul 2002

"From Genes to Medicines"

Next year sees the 50th anniversary of the discovery of the structure of DNA. Since 1953 we have learnt how DNA is organised into genes that encode the sequence information for proteins. Following this, a huge international effort has gone into sequencing DNA and this has culminated in the determination recently of the first complete sequences of human DNA, the human genome. In parallel with the sequencing of the genome, there is an explosion of knowledge about the variation in DNA sequences between different people, that influences to an important extent our different appearances, behaviour and susceptibility to particular diseases. In addition to this vital knowledge about our own genome and genetic variation, the sequences of other species, such as mice, and of the important bacteria and parasites that infect humans have also been analysed.

In this lecture I will describe what impact this explosion of new knowledge about human, animal and pathogen genomes is having on our understanding of human disease. New medicines have started to be developed, that are the results of our understanding of the human genome. The diagnosis and treatment of cancer is one of the first areas of medicine that is likely to be revolutionised by the sequencing of the human genome. The treatment of one form of leukemia, chronic myeloid leukemia, is being transformed by a new drug that could only have been developed with knowledge of the underlying genetic abnormality in the bone marrow.

The deciphering of the human genome and knowledge about the consequences of genetic variation between different people also raises ethical problems. How much should individuals know about their own genes and what might be the consequences?