Distinguished Visitor Programme

Prof Richard Frackowiak
Professor and Co Head of Department, Wellcome Department of Cognitive Neurology

Biography

Prof Richard Frackowiak is the Dean of the Institute of Neurology at University College London. His present appointments also include Professor and Co-Head of Department, Wellcome Department of Cognitive Neurology, and Director, Leopold Muller Functional Imaging Laboratory, Institute of Neurology, London. Professor Frackowiak is a Wellcome Trust Principle Clinical Research Fellow, a Consultant Neurologist at the National Hospital for Neurology and Neurosurgery, Queen Square, London, and an Honorary Consultant Neurologist at the Royal Free Hampstead NHS Trust, London.

He is a British citizen born in 1950. He was educated at Cambridge University and undertook his medical studies at Middlesex Hospital Medical School in London. His honorary academic appointments are many, including Adjunct Professor of Clinical Neurology, Cornell University Medical School, New York Hospital, New York, Rogowski Visiting Professor, Yale Medical School (2001), and Norman Geschwind Visiting Professor, Beth Israel Hospital, Harvard Medical School (1999). He is the fourth most highly cited British biomedical scientist of the decade 1990-2000.

Professor Frackowiak's work focuses on investigating plasticity, the mechanism by which the human brain acquires new knowledge, lays down memories and compensates for lost functions after disease or injury. Major advances in computing and mathematics have led to new opportunities for the study of the structure, function and structure-function relationships non-invasively in the human brain.

One of the most exciting and dramatic observations to come from human brain mapping has been the dynamic plasticity of function in both normal brains and the brains of patients with neurological and neuropsychiatric disorders. Recent activation studies have provided interesting information about the brain's capacity to re-organise after injury and in association with practice and learning. Though presently in the realm of basic physiology, the study of brain plasticity and its modulation by drugs and other therapies indicates a novel approach to the rehabilitation of brain damaged adults.
Lecture Abstract

20 February 2002

"Imaging the Human Brain in Action"

We live in an age when most people believe that our emotional, intellectual and indeed biological lives are uniquely determined by our brains. Nevertheless, in a hang over from the time when the seat of the soul was the heart or the pineal gland we continue to discuss our emotions, intentions and acts of will in terms that deliberately eschew any reference to the biology of the brain. A new intellectual pursuit of our time is that of neurophilosophy. This pursuit attempts to reconcile basic biological facts about the brain with abstract concepts that describe our human behaviour in terms of our religious and philosophical past. This state of affairs is due to two factors. The first is a limitation imposed by a lack of imagination in formulating attributes of human behaviour in biological terms, and especially in terms of the physiology and biochemistry of the brain. The second has been our remarkable inability to describe in fine details the functional anatomy of the human brain. This technical impotence has now been reversed with the introduction of powerful non-invasive brain monitoring methods.

It is my belief that the acquisition of new data about how our brains are organized to produce the complex facets of human behaviour shall give us a new view of our conscious lives and take us away from endless and essentially meaningless discussions about whether the brain is capable of investigating itself. No one can deny that this enterprise is of paramount importance in modern society as our populations age and degenerative diseases lead to progressive destructions of the personality and humanity of individuals.