

Citation for the award of Honorary Doctor of Medical Science Professor Sir Marc Feldmann

Professor Sir Marc Feldmann is a pre-eminent immunologist at the University of Oxford where he is Head of the Kennedy Institute of Rheumatology and leads the Cytokine and Cellular Biology section. He graduated with an MBBS degree from the University of Melbourne in 1967. After an internship (residency) at St Vincent's Hospital, he earned a PhD in Immunology in 1972 under the supervision of Sir Gustav Nossal at the Walter and Eliza Hall Institute of Medical Research. He then went to the UK as a CJ Martin Fellow of NHMRC and his career has since progressed in London, initially at the Imperial Cancer Research Fund's Tumour Immunology Unit, then at the Charing Cross Sunley Research Centre and the Kennedy Institute of Rheumatology which joined with the Faculty of Medicine at Imperial College in 2000, prior to its transfer to the University of Oxford in 2011.

Marc Feldmann's pre-eminence stems from his 1983 publication that provided a new hypothesis for the mechanism of induction of autoimmune diseases and highlighted the role of cytokines. He was awarded the 2007 Curtin Medal for outstanding achievements throughout his career, which have stemmed from this discovery and the subsequent development of therapies improving the quality of life of millions of people worldwide with rheumatoid arthritis.

From 1984 he collaborated with Ravinder (now Sir) Maini at the Kennedy Institute of Rheumatology, studying the disease mechanism in rheumatoid arthritis. They showed that diseased joints have far more pro-inflammatory cytokines than normal, and identified one of these, Tumour Necrosis Factor Alpha, (abbreviated TNF α) as the key. Blocking TNF α with a monoclonal antibody reduced levels of the other pro-inflammatory cytokines in test-tube models of arthritis, and provided the rationale for testing TNF blockade in rheumatoid arthritis patients for whom all existing treatment had failed. This led to the first of a series of successful clinical trials performed in 1992, at Charing Cross Hospital. Several approved antiTNF drugs have now become the therapy of choice for stopping the inflammatory and tissue-destructive pathways of not only rheumatoid arthritis, but other autoimmune diseases including Crohn's disease, ulcerative colitis, ankylosing spondylitis, psoriasis and psoriatic arthritis. These drugs are used extensively, with millions of patients successfully treated worldwide.

Marc Feldmann has authored over 600 published papers reflecting an overarching commitment to both the cellular aspects of inflammatory autoimmune biology messenger molecules, cytokines and therapeutic applications. He and Ravinder Maini have shared many awards for their discovery. In 2000, Feldmann and Maini were awarded the Crafoord Prize (Royal Swedish Academy of Science) 'for identification of TNF blockade as an effective therapeutic principle in rheumatoid arthritis'. In 2003, the two were awarded the Albert Lasker Award for Clinical Medical Research (Lasker Foundation, USA) for their discovery of anti-TNF therapy as an effective

treatment followed in 2004 by the Cameron Prize for Therapeutics (University of Edinburgh). In 2007, Marc Feldmann was awarded The European Patent Offices 'European Inventor of the Year' in the Lifetime Achievement category. In 2008 he and Maini were awarded the Dr Paul Janssen Award for Biomedical Research and in 2010 they were awarded the Ernst Schering Prize. Marc Feldmann is a fellow of several Royal colleges and national academies, the Academy of Medical Sciences, and the Royal Society of London. He is a Corresponding Member of the Australian Academy of Science, and a Foreign Member of the National Academy of Sciences, USA. He was knighted in the 2010 Queen's Birthday Honours for his services to medicine.

There are few of whom it can be said they have led a therapeutic revolution, but Professor Sir Marc Feldmann's work in the area of autoimmune diseases has changed the course of medical practice and improved the lives of millions of people throughout the world.