David C. Wraith, Professor of Experimental Pathology, University of Bristol, UK

David Wraith has worked in the field of T cell biology and the role of T lymphocytes in protection from infection and in autoimmunity since 1981. David worked with Ita Askonas at the National Institute for Medical Research, Mill Hill to help define the mechanism by which cytotoxic T cells respond to and kill influenza virus infected cells through recognition of peptide fragments of antigen. Their work also led to the development of a vaccine that would induce cytotoxic T cells capable of heterotypic immunity.In 1986 and 1987 David was awarded MRC and National MS Society fellowships to work in the laboratory of Hugh McDevitt in Stanford. Their work described how monoclonal antibodies and synthetic peptides could be developed for immunotherapy of autoimmune diseases. In 1989 David was awarded the Wellcome Trust Senior Fellowship to establish a new laboratory in Cambridge where he worked on mechanisms of thymic selection and was among the first to demonstrate induction of peripheral tolerance by administration of soluble peptide antigens. Since 1995 his laboratory in Bristol has focused on the mechanism of antigen-specific immunotherapy. Their work provided the essential rules governing the design of therapeutic peptides and led to the establishment of a University of Bristol spinout company, Apitope NV (www.apitope.com). The company has designed peptides for treatment of various autoimmune diseases and has successfully completed phase I trials in relapsing multiple sclerosis. David's research laboratory is currently defining the differentiation pathway of antigen induced Treg cells. The aim of this approach is to improve the efficacy of peptide therapy for treatment of allergy, autoimmunity and other unwanted immune responses in man.