

Curriculum Vitae : Richard Michael MAIZELS

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Nationality : British

Degrees and Honours

BSc (Hons) 2 (i) Zoology, University College London, August 1973
PhD, Immunology, National Institute for Medical Research, London, October 1976
Pfizer Academic Award in Animal Health Research, 1987
Wolfson Research Award, 1988
Wright Medal of the British Society for Parasitology, 1998
Fellow of the Royal Society of Edinburgh, 2002
Eurolife Medal, Leiden University, 2014

Academic Appointments

1976 - 1977 Research Fellow in Genetics, California Institute of Technology, Pasadena (laboratories of Dr Ray Owen and Leroy Hood)

1977 - 1979 Postdoctoral Fellow, Microbiology, University of California at Los Angeles (laboratory of Dr Eli Sercarz)

1979 - 1983 Scientific Staff, Division of Parasitology, National Institute for Medical Research, Mill Hill, London (laboratory of Dr Bridget Ogilvie)

1983 - 1988 Lecturer, Biology, Imperial College London

1988 - 1990 Senior Lecturer, Biology, Imperial College London

1990 - 1993 Reader in Parasite Immunology, Biology, Imperial College London

1990 - 1993 Deputy Director, Wellcome Research Centre for Parasitic Infections, Imperial College London

1993 - 1995 Professor of Parasite Immunology, Biology, Imperial College London

1993 - 1995 Director, Wellcome Research Centre for Parasitic Infections

1995 - 2015 Professor of Zoology, Division of Biological Sciences, University of Edinburgh

1997 - 1999 Head of Institute of Cell, Animal and Population Biology, Edinburgh

2004 - 2008 Head of Institute, Institute of Immunology and Infection Research, Edinburgh

2008 - 2011 Director, Centre for Immunity, Infection and Evolution, University of Edinburgh

2011 - 2015 Director, Edinburgh Infectious Diseases

2016 - Professor of Parasitology, Wellcome Trust Centre for Molecular Parasitology and Institute for Infection, Immunity and Inflammation, University of Glasgow

2016 - Honorary Professor, University of Edinburgh

Current Research Funding

The Wellcome Trust, Senior Investigator Award. *Helminths and the immune system: regulation, regulators and immunity*. £2,039,266. April 2015 - March 2020

Kenneth Rainin Foundation (USA). Synergy Award (2015), Breakthrough Award (2016) and Phase 3 Award (2017) : *Induction of Therapeutic Regulatory T cells by Parasite Products*. Total US\$ 600,000. April 2016 - March 2019

The Wellcome Trust : PhD Studentship for Dr Fumi Varyani (Edinburgh Clinical Academic Track). The role and modulation of innate immune cells in inflammatory bowel disease. £247,762. December 2014 - June 2018.

Past Awards

Since 1983 I have been awarded over £17M in research grants (including £3.6M from research councils, £9.3M from UK charities, £3.0M from EU and £1.1M from international agencies, and have led or participated in infrastructure, equipment or studentship grants totalling £12.1M. My principal previous research grants are:

2010-2015 **The Wellcome Trust**, Programme Grant. Mediators of regulation and immunity in helminth infections. £1,500,000.

2011-2015 **Kenneth Rainin Foundation**, Innovator and Breakthrough Grants. Potential of parasite products to suppress inflammatory bowel disease. US \$350,000

2010-2014 **American Asthma Foundation** : Senior Investigator Award. Suppression of airway allergy by products of helminth parasites. US\$ 750,000.

2008-2011 **The Wellcome Trust** : Strategic Award: *Centre for Immunity, Infection and Evolution*, PI, Prof RM Maizels, with Profs R Carter, D Gray, T Little, K Matthews, AA Nash, AF Read, A Rowe, MEJ Woolhouse. £1,489,569

2007-2012 **Medical Research Council** Programme Grant : Macrophages in Nematode Infection: Regulators, Effectors or Healers? Co-Investigator, PI Prof J E Allen, £1,958,136.

2006-2009 **Medical Research Council**, Project Grant : The impact of helminth infections on allergies: regulatory interactions and protective mechanisms in airway inflammation. £630,744.

2006-2009 **European Commission** : T cell regulation and the control of helminth infections. Lead PI with 6 overseas partners. £1,330,000

2005-2010 **The Wellcome Trust**, Programme Grant : Cellular and molecular mechanisms of immune regulation in helminth infections. £1,348,259

2003-2006 **The Wellcome Trust**, Project Grant (Principal Applicant, with JE Allen and AP Waters) : Parasite homologues of mammalian MIF: inhibitors or inducers of host immunity? £336,685.

2001-2006 **The Wellcome Trust: Science Research Investment Fund** : Centre for Infection Biology and Immunology (Principal Applicant, with JE Allen, NH Barton, ML Blaxter, B Charlesworth, D Gray, PD Keightley, AJ Leigh Brown, JM Pemberton and AF Read). £4,734,289,

2001-2006 **Medical Research Council** : Immunology of filariasis: model systems for immunity and tolerance (with JE Allen). £899,000.

2000-2005 **The Wellcome Trust**, Programme Grant : Novel genes for immune modulation and evasion by nematode parasites. £1,087,695

1997-2000 **Biotechnology and Biological Sciences Research Council**. Biological basis of Th subset bias in intestinal nematode infections. £197,368

1995-2000 **The Wellcome Trust**, Programme Grant The immunology of nematode parasites: cellular, molecular and biological analyses of parasite antigens and host responses. £568,554

1995-1998 **Medical Research Council** Project Grant. *Toxocara canis*: a model for cellular biology of parasitic nematodes. £242,808

1990-1995 **The Wellcome Trust**. Establishment of Wellcome Research Centre in Parasitic Infections. (with Prof RM Anderson, Dr AE Bianco, Dr DAP Bundy, Dr ME Selkirk and Dr DF Smith) £ 3,998,614

- 1986-1990 **The Wellcome Trust.** Project Grant: Biology of parasitic nematodes: Characterisation of antigenic products and their interaction with the host. £ 120,027
- 1984-1987 **Medical Research Council:** Project Grant. Molecular cloning of parasitic nematode antigens. With Dr M E Selkirk. £ 121,401
- 1983-1986 **The Wellcome Trust:** Immunological approaches to the diagnosis and prophylaxis of human filariasis. £ 102,335

Major Invited Lectures and Conference Presentations 2011-2017

2017

- April Keynote Lecture, *Woods Hole Immuno-Parasitology* meeting, Massachusetts
 May *Chinese Society of Immunology* Joint Symposium with BSI, Shanghai
 July *New Mexico Consortium - Synthetic Immunity*, Santa Fe, New Mexico

2016

- September *Protective Immunity at Barrier Surfaces*, Newark, New Jersey
 June *Italian Society of Parasitology*, Bari
 March *Dutch Society of Immunology*, Lunteren, Netherlands
 March *World Immune Regulation Meeting*, Davos
 February *Belgian Society of Gastroenterology*, Brussels

2015

- December *British Society of Immunology*, Sunningdale
 November *Belgian Society of Parasitology*, Antwerp
 October *Aegean Conference on Autoimmunity*, Chania, Crete
 July *Rainin Foundation Symposium on Wound Healing*, San Francisco
 June *European Academy of Allergy and Clinical Immunology*, Barcelona
 February *Belgian Society of Gastroenterology*, Brussels

2014

- December *Cell Symposium on Th2 Immunity*, Bruges, Belgium
 November *French Society of Immunology*, Lille
 October *Eurolife Medal Lecture*, Leiden, Netherlands
 July *Rainin Foundation Symposium*, San Francisco
 April *Turkish Society for Immunology*, Antalya
 February *European Academy of Allergy and Clinical Immunology*, Brasov, Romania

2013

- December *Australasian Society of Immunology*, Wellington, New Zealand
 September *International Symposium on Regulators of Adaptive Immunity*, Erlangen
 August *International Congress of Immunology*, Milan
 May *American Asthma Foundation*, San Francisco
 January *Keystone Symposium on Type 2 Immunity*, Santa Fe, New Mexico

2012

- December *Federation of African Immunological Societies*, Durban, South Africa
 October *Toxocara Symposium*, Budapest
 May *EMBL Symposium: New Perspectives in Infection and Immunity*, Heidelberg
 May *American Asthma Foundation*, San Francisco
 March *British Society for Parasitology*, Glasgow
 January *Regulatory B cell Symposium*, Leiden, Netherlands

2011

- September *European Academy of Allergy and Clinical Immunology*, Edinburgh
 May *American Asthma Foundation*, San Francisco
 April *Keystone Symposium on Immunoregulatory Networks*, Colorado
 March *World Immune Regulation Meeting*, Davos, Switzerland

Managerial and Leadership Roles

- 1990 - 1995 Together with Prof R M Anderson and 4 others, set up the Wellcome Research Centre for Parasitic Infections at Imperial College, employing 16 staff, acting as Deputy Director until 1993, and Director thereafter.
- 1995 - 1997 At the University of Edinburgh, together with Prof A Wyllie and 2 others secured Wellcome Trust 4-Year PhD scheme in Cellular and Molecular Basis of Disease (eventually training over 100 students)
- 1997-1999 Head of the Institute of Cell, Animal and Population Biology; organised and led planning for Ashworth 3 building (2200 m²) and headed JIF bid which was awarded £4.7M towards a total cost of £6.9M.
- 1999-2004 Steered Ashworth 3 building through all planning and construction stages, culminating in opening in 2005; became Director of Wellcome Trust 4-year PhD scheme in 2001, with successful renewal funding in 2003.
- 2004-2008: Head of the new Institute of Immunology and Infection Research (a subdivision of the previous Institute). Initiated and led bid to the Wellcome Trust for a Centre in Immunity, Infection and Evolution (awarded £1.5M as a "Centre-in-Development").
- 2008-2011: Director of the Centre in Immunity, Infection and Evolution; appointed a cohort of 9 research fellowships in diverse areas of immunity and evolutionary biology,
- 2011- 2015 Initiated the new *Edinburgh Infectious Diseases* cross-University consortium bringing together over 100 PIs in Biology, Medicine, Veterinary Medicine and Social Sciences

Alumni of the Maizels Laboratory

I have trained 19 PhD students, of whom 15 are active in academic research (11 with tenured/tenure-track appointments, 2 with Professorships) and 3 are in the biotechnology industry. Of 22 former post-doctoral researchers, 17 hold academic posts or research fellowships including 8 with full Professorships in UK, US and Australian universities, and 2 are practising medicine.

External Committee Membership

- 1992-1993 World Health Organization, Filariasis Steering Committee
- 1992-1996 MRC Physiological Medicine and Infections Board Grants Committee B
- 1998-2002 Medical Research Council : Physiological Medicine and Infections Board
- 2000-2001 The Wellcome Trust, Showcase Grants Committee
- 2002-2004 The Wellcome Trust, International Panel
- 2002-2006 Board of Reviewing Editors, *Science*
- 2003-2006 Pathogen Sequencing Advisory Board, Wellcome Trust Sanger Institute
- 2004-2006 Visiting Group, Trinity College Dublin and Science Foundation Ireland
- 2004-2007 Wellcome Trust, Basic Immunology and Infectious Disease Funding Ctee.
- 2010-2011 Wellcome Trust, Immunology and Infectious Disease Funding Committee
- 2011-2015 International Committee, Royal Society of Edinburgh
- 2012 International Advisory Board, Immunology, National University of Singapore
- 2013 - External Science Advisory Board, Department of Biology, University of York
- 2014 - Science Advisory Board, Roslin Institute, Edinburgh
- 2014- Steering Group, WormBase ParaSite, Wellcome Trust Sanger Institute