

Daniel M. Davis

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Career

2022 - Current:

Head of Life Sciences and Professor of Immunology, Imperial College London.

Honorary Professor in Immunology, University of Manchester

Immunology Network, GSK (part-time 'consultancy' appointment with GSK)

Previous:

- 2012-2022 Professor of Immunology, University of Manchester. Also, Head of Cellular Immunology (26 labs) in The Lydia Becker Institute of Immunology and Inflammation and Director of Research, Manchester Collaborative Centre for Inflammation Research
- 2008-2012 Head, Immunology Section (16 labs), Imperial College London
- 2005-2012 Professor in Molecular Immunology, Imperial College London
- 1999-2005 Lecturer, then Senior Lecturer, Imperial College London
- 1996-1999 Postdoctoral Research Fellowship, Harvard University

Qualifications & Awards

Qualifications:

- 1992-1995 PhD Physics, Strathclyde University
- 1989-1992 BSc. Physics (First class), University of Manchester

Awards:

- 2018 'The Beautiful Cure' book short-listed for The Royal Society Insight Investment Book Prize.
- 2013 'The Compatibility Gene' book long-listed for The Wolfson Royal Society and short-listed for the Royal Society of Biology book prizes.
- 2012 Elected Fellow of The Royal Society of Biology
- 2011 Elected Fellow of The Academy of Medical Sciences
- 2008 Royal Society Wolfson Research Merit Award
- 2005 The Lister Research Prize for Preventive Medicine
- 2002 EMBO Young Investigator Award
- 2000 Winner of the Oxford University Press science writing prize
- 2000 Selected as a 'Scientist for the New Century' and awarded honorary life membership of The Royal Institution
- 1997 Postdoctoral Fellowship from the Irvington Institute for Immunological Research

Professional Recognition and Service

Publications: 147 publications, >15k citations

Board/Committee Memberships (selected): Head of Life Sciences, Imperial College London (2022 – Current), Immunology Network member, GSK, (2021 – Current), Chair of the Editorial Board, The Biologist,

Royal Society of Biology (2021 – Current), Selection Committee SC2 for the Academy of Medical Sciences Fellowship (Chair 2017-2020 and Committee Member 2015-2017); Member, judging panel for Wellcome Trust Image competition (2019); Spokesperson, British Society of Immunology (2016 – Current); Science Advisor (The Hay Festival); Head, Cellular Immunology, Lydia Becker Institute for Immunology and Inflammation (2018 – 2022); Director of Research for the Manchester Centre for Collaborative Research in Inflammation (2013 – 2022); Advisory board for the Biological Physical Sciences Institute, York (2016 – current); Immunology Section Head, Immunology, Imperial College London (2008-2013); Board of Examiners for MRes in Biochemical Research (2006-2013); Biology Degrees Teaching Committee (2005-2013).

External esteem: 30 invited talks in 2019 (2020/1 events disrupted by COVID-19). Profiled in The Journal of Cell Biology ‘Dan Davis: Up close and personal with immune cells’ (217, 2975-6, 2018). Profiled in Nature, Removing the blindfold, Nature, 504, S10-S12, 2013; The new cell anatomy, Nature, 480, 26-28, 2011; Get the word out, Nature, 504, 177-179, 2013. His lab images was a breakthrough of the year in Discover magazine 2013.

Broad communication of science: Davis is a go-to expert on immunology and is regularly quoted in the press. He has written articles for The Times, Sunday Times, Guardian, Independent, Observer, New Scientist, Scientific American and has featured in The New York Times, Wall Street Journal and many others. He has presented immunology widely including every year for the last decade at the Hay Festival as well as at many other science, music and literary festivals, at The Royal Institution (where he is an honorary life member) and at London’s Science Museum. For example, Davis’s talk at The Royal Institution in 2021 has been viewed ~250,000 times. He has also featured on many radio and TV programs including BBC Breakfast, Sunday Brunch, Radio 4’s The Infinite Monkey Cage and Inside Science, as well as NPR’s Fresh Air with Terry Gross. His books, *The Compatibility Gene* (Penguin, 2013) and *The Beautiful Cure* (Vintage, 2018), received rave reviews in The Telegraph, The Guardian, The Times, The Mail on Sunday, The New York Times, Wall Street Journal, New Scientist, New Statesman and others. *The Compatibility Gene* was picked by Bill Bryson as a Guardian Book of the Year, and *The Beautiful Cure* was a Book of The Year in The Times, The Telegraph and New Scientist. His recent book is *The Secret Body* (Vintage, 2021), endorsed by Bill Bryson, Brian Cox, Alice Roberts and Venki Ramakrishnan. Davis has also spoken at many international renowned events such as Google’s SciFoo Camp (2018) and Aspen Festival of Ideas (2019). He has given talks at several UK schools. Davis’s public engagement work about the immune system was especially important during the pandemic.

Training: Davis’s lab has hosted 31 PhD students, 30 postdocs, 9 technicians, as well as Masters, undergrad projects and others. Past lab members have become Faculty at Imperial College London, Kings College London, Glasgow University, Utrecht University, University of Toronto, Karolinska Institute and others, including several now holding Professorships. Recent PhD students went on to postdocs in Harvard, Stanford, NIH, UCSF, Oxford, Sloan-Kettering and elsewhere.

Grants and Research Funding

1. **Medical Research Council**, The nanoscale phenotype of immune responses in health and disease, **£1,814,588**, Sole applicant, Programme grant, Oct 2022 – Sept 2027,
2. **GSK**, Cell biology of the TIGIT/CD96 regulatory axis, **£55,000**, PhD studentship, sole applicant, Oct 2022 – Sept 2025
3. **Cancer Research UK**, Biophysical design of immunomodulatory nanotherapeutics, **£450,000** (£225k to Davis lab), Joint lead with Prof. Iain Dunlop (Imperial College London), Oct 2021 – Sept 2024.
4. **GSK**, PI, Mechanisms of action for a novel checkpoint inhibitor, **£641,755**, Sole Applicant, May 2021 – April 2024
5. **Bristol Myers Squibb**, PI, Tri-specific NK cell engaging therapy, **£662,690**, Sole Applicant, Feb 2021 – Jan 2024.

6. **Bristol Myers Squibb**, PI, Bispecific engagement on macrophages: insights into the mechanisms of action, **£278,905**, Sole Applicant, April 2021 – March 2024.
7. **Continuum Life Sciences**, PI, Using cancer survivors to define the Natural Killer cells which fight cancer, **£954,319**, Sole Applicant, Feb 2020 – Jan 2023.
8. **Wellcome Trust Investigator Award**, PI, The nanoscale organisation of immune cell surfaces in health and disease, **£1,816,067**, Sole Applicant, Oct 2016 – Oct 2022.

Previous (selected):

1. GSK, Funding renewal for Manchester Collaborative Center for Inflammation Research, Grant holders: Tracy Hussell (co-lead), Daniel M. Davis (co-lead), Andrew Macdonald, Mark Travis and consortium of others. £2,000,000 (**£630,000** to Davis's lab), Co-lead, Feb 2017 – Dec 2021.
2. BBSRC, Grant Holders: Victoria Allan (lead) and large consortium, Equipment grant: A lattice lightsheet microscope for imaging highly dynamic processes in living cells and organisms, **£617,570**, Co-applicant, Oct 2019, Equipment grant.
3. MRC program award, The supramolecular dynamics of human immune cell recognition and communication (sole applicant), 2011-2016, **£2,231,804**
4. BBSRC, Drug delivery at the immune synapse (sole applicant), 2011-2014 **£453,868**
5. MRC program award, Immune cell communication facilitated by the supramolecular organisation and intercellular transfer of cell surface proteins (sole applicant), 2006-2011, **£900,018**
6. MRC, Understanding and manipulating Antibody Dependent Cell Cytotoxicity (ADCC) by human Natural Killer (NK) cells (lead applicant, collaboration with MedImmune), 2010-2013, **£338,667**
7. BBSRC, Quantification, modelling and analysis of molecular dynamics, patterning and signalling in the NK synapse (co-applicant), 2006-2010, **£800,000**
8. The Department of Trade and Industry, (co-applicant), 2002-2005 **£1,440,000**
9. Human Frontier Science Program, (co-applicant), 2003-2006, **\$750,000**
10. MRC Career Establishment Award (sole applicant) 2000-2005, **£588,266**

Selected Invited Talks

2002-2010: Four Keystone Symposium, USA; Four major NK cell Congresses, USA; Four different EMBO meetings/workshops in France, Germany and Portugal; XIIIth Int Congress of Histocompatibility & Immunogenetics, Seattle, USA; American Society of Cell Biology Annual Congress, Washington, USA; Natural Killer Cell Congress, Hawaii, USA; British Transplantation Society Annual meeting, Edinburgh; NIH, Twinbrook II Seminar Series, Washington, USA; Transplantation Society Congress, Nova Scotia, Canada; Immunology Lecture Series, Stanford University, USA; Pasteur Institute, Paris, France; Nobel Conference, Karolinska Institute, Stockholm; American Association of Immunologists' meeting, Baltimore, USA.

2011: Keystone Symposium, Breckenridge, Colorado, USA; Imaging, Interpretation and Modeling in Modern Immunology, Banff International Research Station (BIRS), Canada; 13th International Myeloma Workshop, Paris, France; The EMBO Meeting 2011, Vienna, Austria; International Biophysics Congress, Beijing, China; Immunology Seminar Series, NIH, Bethesda, USA

2012: NK Cell Congress, Asilomar, USA; Keynote at Irish Society of Immunology, Trinity College Dublin, Ireland

2013: NK Cell Congress, Heidelberg, Germany; Keynote at AstraZeneca Science Symposium, UK

2014: 18th International Microscopy Meeting, Prague

2015: Dutch Society of Immunology, Lunteren, Netherlands; NK cell Congress, Montebello, Quebec, Canada; FASEB SRC, Signal Transduction in the Immune System, Big Sky, Montana, USA; American Society of Cell Biology, San Diego, USA

2016: Imaging the immune system II, The Weizmann Institute, Israel; Immunology lecture, Hebrew University, Jerusalem; NK Cell Congress, Taormina, Sicily; Joint Congress for Dutch & UK Societies of Immunology, Liverpool.

2017: Scandinavian Society of Immunology (SSI) meeting, Stockholm; British Society of Immunology, Brighton, UK.

2018: NK Cell Congress, San Antonio, Texas, USA; European Congress of Immunology, Amsterdam, Netherlands; The 2018 John Maddox Lecture at the Hay Festival, UK; Sci Foo Camp, Google, USA.

2019 (Selected from 24): NIH immunology seminar series, USA; Microscience Microscopy Congress, UK; Columbia University, USA; Aspen Festival of Ideas, USA; WIRED Health, London, UK; Israeli Society for Cancer Research, Israel; Oxford Immunology Symposium; Keynote address at NHS Chief Scientific Officer's Annual Conference, London.

2020-1: Many public talks online for COVID-19. Online plenary talk for European Federation for Immunogenetics.