#### **CURRICULUM VITAE**

#### SIR WALTER F. BODMER, PhD, FRCPath, FRS

Date of Birth: January 10, 1936, in Frankfurt am Main, Germany (British Nationality)

#### **Education**

Manchester Grammar School, 1944 - 1953 BA (Mathematics) University of Cambridge (Clare College), 1956 PhD (Genetics) University of Cambridge (Clare College), 1959 FRCPath, 1984

### **Personal**

Married Julia Pilkington 11 August 1956 (deceased 29th January 2001)

(She was a distinguished scientist in her own right and long-time scientific collaborator; D.Sc., Hon FRCP, Fellow Academy Medical Sciences)

Married (2<sup>nd</sup>) Dr Ann Ganesan, Stanford University, 19<sup>th</sup> Dec 2020

Three children:

Dr Mark Bodmer MA, Ph.D., b. 1957, geneticist and biotechnologist, formerly CEO of company Lorantis, and a research VP GSK, now CSO Evelo.

Dr Helen Bodmer MA, D.Phil. MRCP, b.1959, medical researcher and clinician, formerly Home Office Inspector and at DEIS, now at Medical Research Council.

Dr Charles Bodmer, MD, FRCP, b.1961, Consultant in charge of Diabetes, Colchester General Hospital.

#### **Professional Appointments**

1958-1960	Research Fellow, Clare College, Cambridge
1961	Official Fellow, Clare College, Cambridge and
1960-1961	Demonstrator, Dept of Genetics, University of Cambridge
1961-1962	Fellow & Visiting Assistant Professor, Dept of Genetics, Stanford
	University School of Medicine, Palo Alto, California
1962-1966	Assistant Professor, Dept of Genetics, Stanford University
1966-1968	Associate Professor, Dept of Genetics, Stanford University
1968-1970	Professor, Dept of Genetics, Stanford University
1970-1979	Professor of Genetics, University of Oxford
1979-1991	Director of Research, Imperial Cancer Research Fund, London
1991-1996	Director General, Imperial Cancer Research Fund, London
1996-2005	Principal, Hertford College, Oxford
1996-	Head of Laboratory, Cancer & Immunogenetics Laboratory, Weatherall
	Institute of Molecular Medicine, Oxford
2014-	Emeritus Professor, Oxford University

#### **Other Appointments**

1975-	Member, Sir Ronald Fisher Memorial Committee (1976-2021 Chairman)
1981-1982	Vice-President, The Royal Institution
1981-1987	Chairman, BBC Science Consultative Group

1981-1991	Member, BBC General Advisory Council (1987 Chairman)
1982-2003	Trustee of Sir John Soane Museum (Honorary Patron 2004-)
1983-1988	Member, Advisory Board for the Research Councils
1983-1993	Trustee, Natural History Museum (1989-1993 Chairman of Trustees)
1984-1985	President, The Royal Statistical Society
1987-	Foulighton Member of the Kungliga Fysiografiska Sällskapet
1987-1988	President, The British Association for the Advancement of Science
1907 1900	(1989-2001 Vice-President; 1996-2001 Chairman of Council; 2006
	Honorary Fellow)
1989-1990	President, The Association for Science Education
1989-1990	Trustee, Greater Manchester Museum of Science & Industry
1989- 2005	Trustee, The Laban Centre for Movement & Dance (Chairman 1999-
1909 2008	2005)
1990	Honorary Member of the Scandinavian Society for Immunology
1990-1991	President, British Society for Histocompatibility & Immunogenetics
1990-1993	Chairman, COPUS (Committee for the Public Understanding of
1770 1775	Science)
1990-1992	President, HUGO (The Human Genome Organisation) (Vice President
1990 1992	1988-1990)
1990-1993	President, The Organisation of European Cancer Institutes
1990-1993	Vice-President, the Parliamentary & Scientific Committee
1990-1996	Non-Executive Director, Fisons
1990- 2008	Honorary Vice-President, The Research Defence Society
1991	Honorary Member of the European Federation of Immunogenetics (EFI)
1991-2002	Ludwig Institute for Cancer Research, Scientific Committee
1992-1994	First President, (IFAAST) The International Federation of Associations
	for the Advancement of Science & Technology
1994	Companion of the Institute of Management
1992	Honorary Member Histocompatibility & Immunogenetics Society
1994-1996	President, EACR (European Association for Cancer Research)
1995-2005	Chancellor, University of Salford
1996-	Visiting Professor, Division of Medical & Molecular Genetics, United
	Medical & Dental Schools at Guy's & St. Thomas's
1996-2001	Non-Executive Director (Gemini Holdings Limited) Chairman of the
	Scientific Advisory Board 1996-98
1998-2003	Chairman, National Radiological Protection Board
1998	Honorary Member Royal Irish Academy
1998-2002	President, BACR (British Association for Cancer Research)
2001-2020	Chairman, UK Forum for Genetics and Insurance
2002-	Trustee of the Foulkes Foundation Fellowship
2003 - 2009	Chairman, Leukaemia Research Fund, Medical & Scientific Advisory Panel
2004-	Honorary Professor, Department of Biochemistry, University of Hong
	Kong
2005-2008	Member of Board, Trinity Laban, London
2006-	Trustee, Porter Foundation
2007 - 2013	Consulting Professor, Department of Medicine (Oncology), Stanford
• • • • • • • • • • • • • • • • • • • •	University School of Medicine
2008-2014	President, Galton Institute
2015-	Vice President, Hertford Society

# **Awards and Honours**

1972	Foreign Honorary Member, American Academy of Arts and Sciences
1974	Fellow of The Royal Society
1974	Member of the European Molecular Biology Organisation (EMBO)
1980	The William Allan Memorial Award (The American Society of Human
	Genetics)
1981	International Member (formerly Foreign Associate), The National Academy of
	Sciences, USA
1981	Honorary Fellow, Keble College, Oxford
1981	Mendel Lecture, The Genetics Society
1982	The Conway Evans Prize (Royal College of Physicians and The Royal Society)
1983	The Rabbi Shai Shacknai Memorial Prize Lectureship in Immunology and
1705	Cancer Research
1984	Fellow of The Royal College of Pathologists
1984	The John Alexander Memorial Prize & Lectureship, University of Pennsylvania
1704	Medical School
1985	
1985	Honorary Fellow of The Royal College of Physicians Honorary Mombor of the American Association of Immunologists
	Honorary Member of the American Association of Immunologists  The Peace Power Distinguished Scientist Leaturaghin (American Society for
1985	The Rose Payne Distinguished Scientist Lectureship (American Society for
1007	Histocompatibility & Immunogenetics)
1986	Knight Bachelor
1986	Honorary Fellow of The Royal College of Surgeons of England
1986	Bernal Lecture, Royal society
1987	Foulighton Member of the Kungl Fysiogransiska Sallskapet
1987	Laurea Honoris Causa in Medicine & Surgery, University of Bologna
1987	Ellison Cliffe Lectureship & Medal, The Royal Society of Medicine
1988	Hon. DSc, University of Bath
1988	Hon. DSc, University of Oxford
1988	Honorary Member, Alpha Omega Alpha Society, USA
1989	Member of Academia Europaea
1989	Foreign Member of the American Philosophical Society
1989	Honorary Member of the British Society of Gastroenterology
1989	Honorary Fellow, Clare College, Cambridge
1989	Fellow of the International Institute of Biotechnology
1990	Honorary Member of the Scandinavian Society for Immunology
1990	Fellow of the Institute of Biology (now Royal Society of Biology)
1990	Neil Hamilton-Fairley Medal, The Royal College of Physicians
1990	Hon. DSc, University of Edinburgh
1990	Hon. DSc, University of Hull
1990	Fisher Memorial Lecture
1990	Hon. DSc, University of Surrey
1991	Hon. DSc, University of Bristol
1992	Hon. MD, University of Birmingham
1992	Honorary Member British Histocompatibility & Immunogenetics Society
1992	Honorary Fellow of The Royal Society of Edinburgh
1992	Dr Honoris Causa, The University of Leuven
1993	Hon. LL. D University of Dundee
1993	Hon. DSc, the University of Loughborough
1993	Honorary Fellow, Green College, Oxford
1994	Hon. DSc, the University of Lancaster
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1994	Hon. DSc, the University of Aberdeen
1994	Honorary Fellow of The Royal Society of Medicine
1994	The Michael Faraday Award (The Royal Society)
1994	Dr Honoris Causa, Masaryk University, Brno
1995	Honorary Member of the St. Marks Association, London
1995	Hon. DSc, the University of Plymouth
1995	Romanes Lecture, Oxford University
1996	Companion of the Institute of Management
1996	Member of the Board of Patrons, St. Marks Hospital & Academic Institute,
	London
1996	Harveian Orator, The Royal College of Physicians
1996	Hon. DSc, the University of London
1996	Hon. DSc, University of Salford
1997	Hon. DSc, UMIST (now Manchester University)
1997	Honorary Fellow of the Royal Statistical Society
1998	Honorary Member Royal Irish Academy
1998	Dr Honoris Causa, The University of Haifa
1998	Hon. DSc, the University of Witwatersrand, Johannesburg
1998	FEDERA Award, Board of the Federation of Medical Societies, Nijmegen,
	Holland
1998	Founding Fellow of Academy of Medical Sciences
2002	Dalton Medal, Manchester Literary & Philosophical Society
2002	Honorary Member of the British Transplantation Society
2002	D.K. Ludwig Award
2003	Mendel Lecture (first), Brno
2003	Seroussi Foundation research award in colorectal cancer
2005	Hon. Member of the Pathology Society, UK
2005	Hon. Fellow, Hertford College, Oxford
2006	Hon. Fellow, British Association for the Advancement of Science
2006	Hon. Member of the British Society of Immunology
2008	Companion of Trinity Laban
2008	Liveryman, The Drapers' Company
2008	Galton Lecture
2011	Visiting Fellow and lecturer at the Stellenbosch Institute for Advanced Studies,
South Africa	,
2013	Honorary Professor, Shantou University Medical College
2013	Royal Medal, Royal Society
2013	Storer Lecturer, University of Davis, California
2014	Carter Medal, British Society of Genetic Medicine
2014	Sir David Philips Lecture, Cardiff
2016	Osler lecture, Plymouth
2021	Darwin Lecture, Darwin College, Cambridge
2021	Anne McLaren Lecture, Kellogg College, Oxford
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## **OVERALL PUBLICATIONS**

The Genetics of Human Populations. Cavalli-Sforza, L. L. and Bodmer, W. F., W.H. Freeman & Co.: San Francisco, 1971. (Reprinted, Dover Publications 1999)

Our Future Inheritance: Choice or Chance? A study by a British Association Working Party. Bodmer, W. F. and Jones, A., Oxford University Press: Oxford, 1974.

Genetics, Evolution and Man. Bodmer, W. F. and Cavalli-Sforza, L. L., W. H. Freeman & Co: San Francisco, 1976.

The Book of Man. Bodmer, W. F. and McKie, R., Little Brown: 1994.

and more than 700 publications mainly in scientific and medical journals

#### **Research Summary since 2018**

- 1. The fundamental genetics and biology of colorectal cancer (CRC) and their potential applications
- 2. The characterisation and population distribution of genetic diversity in human populations, especially of the British Isles

#### **Selected Recent Publications**

Yeung T.M, C Buskens, L M Wang, N J Mortensen and W F Bodmer (2013) Myofibroblast activation in colorectal cancer lymph node metastases.Brit.J.Can. 108, 2106-2115

Neil Ashley, Trevor Yeung and Walter F Bodmer (2013) Stem cell differentiation and lumen formation in colorectal cancer cell lines and primary tumours. Cancer Res; 73(18); 5798–809.

Neil Ashley, Matthew Jones, Djamila Ouaret, Jenny Wilding and Walter F Bodmer(2014) Rapidly derived colorectal cancer cultures recapitulate parental cancer characteristics and enable personalized therapeutic assays. J Pathol 2014; 234: 34–45

Wilding, Jennifer L. and Walter F. Bodmer (2014) Cancer Cell Lines for Drug Discovery and Development Cancer Res 2014;74:2377-2384.

Matthew F. Jones, Toshifumi Hara, Princy Francis, Xiao Ling Li, Sven Bilke, Yuelin Zhu, Marbin Pineda, Murugan Subramanian, Walter F. Bodmer, and Ashish Lal (2015) The CDX1–microRNA-215 axis regulates colorectal cancer stem cell differentiation. E1550–E1558 | PNAS |

Stephen Leslie, Bruce Winney, Garrett Hellenthal, Dan Davison, Abdelhamid Boumertit, Tammy Day, Katarzyna Hutnik, Ellen C. Royrvik, Barry Cunliffe, Wellcome Trust Case Control Consortium {,International Multiple Sclerosis Genetics Consortium, Daniel J. Lawson, Daniel Falush, Colin Freeman, Matti Pirinen, Simon Myers, Mark Robinson1, Peter Donnelly, & Walter Bodmer(2015) The fine-scale genetic structure of the British population. Nature 519: 309-314.

Bodmer (2015) Genetic Characterization of Human Populations: From ABO to a Genetic Map of the British People. Genetics, 199, 267-279.

Bodmer, Walter (2015) A Mathematician's Odyssey. Annu.Rev.Genomics Hum.Genet.

Marina Bacac, Tanja Fauti, Johannes Sam, Sara Colombetti, Tina Weinzierl Djamila Ouaret, Walter Bodmer, SteffiLehmann, Thomas Hofer, Ralf J. Hosse, Ekkehard Moessner, Oliver Ast, Peter Bruenker, Sandra Grau-Richards, Teilo Schaller, Annette Seidl, Christian Gerdes,

Mario Perro, Valeria Nicolini, Nathalie Steinhoff, Sherri Dudal, Sebastian Neumann7 Thomas von Hirschheydt, Christiane Jaeger, Jose Saro, Vaios Karanikas, Christian Klein, and Pablo Umana (2016) A Novel Carcinoembryonic Antigen T-Cell Bispecific Antibody (CEA TCB) for the Treatment of Solid Tumors. Clinical Cancer Research. Published On line First February 9, 2016. DOI: 10.1158/1078-0432.CCR-15-16

Hsia L, Ashley N, Ouaret D, Wang L, Wilding J, Bodmer W F.(2016) Myofibroblasts are distinguished from activated skin fibroblasts by the expression of AOC3 and other associated markers. Proc Natl Acad Sci U S A\_113(15):E2162 - 2171.

Daniel J M Crouch, Bruce Winney, Willem Paul Koppen, William J Christmas, Katarzyna Hutnik, Tammy Day, Devendra Meena, Abdelhamid Boumertit, Pirro Hysi, Ayrun Nessa, Tim D Spector, Josef Kittler, Walter F Bodmer (2018) The genetics of the human face: identification of large effect single gene variants. PNAS E676–E685 Published online January 4, 2018

Marie R, Pedersen JN, Bærlocher L, Koprowska K, Pødenphant M, Sabatel C, Zalkovskij M, Mironov A, Bilenberg B, Ashley N, Flyvbjerg H, Bodmer WF, Kristensen A, Mir KU. (2018) Single-molecule DNA-mapping and whole-genome sequencing of individual cells. Proc Natl Acad Sci 115(44):11192-11197. doi: 10.1073/pnas.1804194115. Epub 2018 Oct 15.

Ashley N, Ouaret D, Bodmer WF. (2018) Cellular polarity modulates drug resistance in primary colorectal cancers via orientation of the multidrug resistance protein ABCB1.J Pathol. 2018 Oct 10. doi: 10.1002/path.5179.

Rodolphe Marie, Marie Pødenphant, Kamila Koprowska, Loic Bærlocher, Roland C. M. Vulders, Jennifer Wilding, Neil Ashley,b Simon J. McGowan, Dianne van Strijp, Freek van Hemert, Tom Olesen, Niels Agersnap, Brian Bilenberg, Celine Sabatel, Julien Schira, Anders Kristensen, Walter Bodmer, Pieter J. van der Zaag and Kalim U. Mirh 2018 Sequencing of human genomes extracted from single cancer cells isolated in a valveless microfluidic device Lab on a Chip DOI: 10.1039/c8lc00169c

DJM Crouch, WF Bodmer (2020) Polygenic inheritance, GWAS, polygenic risk scores, and the search for functional variants. Proceedings of the National Academy of Sciences 117 (32), 18924-18933

WF Bodmer, DJM Crouch (2020) Somatic selection of poorly differentiating variant stem cell clones could be a key to human ageing. Journal of Theoretical Biology 489, 110153

Walter Bodmer, R. A. Bailey, Brian Charlesworth, Adam Eyre-Walker, Vernon Farewell, Andrew Mead, Stephen Senn (2021) The outstanding scientist, R.A. Fisher: his views on eugenics and race. Heredity, 126, 565–576

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