Potential Supervisors

[Professor Philip K. Maini](#) FRS FMedSci FRSB, FNA, FIMA Director, Wolfson Centre for Mathematical Biology, Mathematical Institute, Oxford

Philip received his B.A. in mathematics from Balliol College, Oxford, in 1982 and his DPhil in 1985 under the supervision of Prof J.D. Murray, FRS. He spent a year teaching at Eton College before returning to Oxford in 1987 as a postdoc at the Wolfson Centre for Mathematical Biology (WCMB) and a Junior Research Fellow at Wolfson College. In 1988 he was appointed Assistant Professor in the Mathematics Department at the University of Utah, Salt Lake City. In 1990 he returned to Oxford as a University Lecturer and in 1998 was appointed Professor of Mathematical Biology by Recognition of Distinction and Director of the WCMB. In 2005 he was appointed Statutory Professor of Mathematical Biology. He is on the editorial boards of a large number of journals, including serving as the Editor-in-Chief of the Bulletin of Mathematical Biology [2002-15]. He has also been an elected member of the Boards of the Society for Mathematical Biology (SMB) and European Society for Mathematical and Theoretical Biology (ESMTB). He is a Fellow of the IMA (FIMA), a SIAM Fellow, an Inaugural SMB Fellow, a Fellow of the Royal Society of Biology (FRSB), and Miembro Correspondiente (Foreign Fellow), La Academia Mexicana de Ciencias (AMC). In 2015 he was elected Fellow of the Royal Society (FRS), and in 2017 he was elected Fellow of the Academy of Medical Sciences (FMedSci), and Foreign Fellow of the Indian National Science Academy (FNA).

His present research projects include the modelling of avascular and vascular tumours, normal and abnormal wound healing, and a number of applications of mathematical modelling in pattern formation in early development, as well as the theoretical analysis of the mathematical models that arise in all these applications. He has over 300 refereed journal publications in the field and has held visiting positions at a number of universities worldwide. He was a Distinguished Foreign Visiting Fellow, Hokkaido University (2002). In 2005 he was elected Honorary Guest Professor, University of Electronic Science Science and Technology of China, Chengdu, in 2006 appointed to a 3-year Adjunct Professorship at the School of Mathematical Sciences, Queensland University of Technology, Brisbane (and again in 2012 and 2014), in 2010 appointed to a 3-year Adjunct Professorship at Lincoln University, Christchurch, New Zealand, and also appointed as a Distinguished Research Fellow at the African Institute for Mathematical Sciences (AIMS), South Africa for 3 years.

He co-authored with Jonathan Sherratt and Paul Dale a Bellman Prize winning paper (1997), was awarded a Royal Society Leverhulme Trust Senior Research Fellowship for 2001-2 and a Royal Society-Wolfson Research Merit Award (2006-11). In 2009 he was awarded the LMS Naylor Prize and Lectureship and in 2014 he was listed in "The World's Most Influential Scientific Minds 2014" (Thomson Reuters). In 2107 he was awarded the Arthur T. Winfree Prize from the Society of Mathematical Biology (SMB).

Supervision of DTC students:

Kieran Smallbone (2006) The role of acidity in tumour development (co-supervisor) Philip Murray (2008) From discrete to continuum models of tumour growth (co-supervisor) http://www.maths.dundee.ac.uk/pmurray/

Christian Yates (2011) Comparing stochastic discrete and deterministic continuum models of cell migration (co-supervisor) http://www.bath.ac.uk/math-sci/contacts/academics/kit-yates/

Aaron Smith (2011) Vertex model approaches to epithelial tissues in developmental systems (co-supervisor) Ornella Cominetti Allende (2012) DifFUZZY: A novel clustering algorithm for systems biology (co-supervisor) Luke Heaton (2012) Biological transport networks (co-supervisor) Katarzyna Bloch (2012) Structural and bioenergetic changes in tumour spheroids during growth (co-supervisor) [Clinical Medicine] Guido Klingbeil (2012) Stochastic simulation of biochemical reaction systems on massively parallel processors (co-supervisor) Gabs Rosser (2012) Mathematical modelling and analysis of aspects of planktonic bacterial motility (co-supervisor) Louise Dyson (2013) Models of cranial neural crest cell migration (co-supervisor) https://warwick.ac.uk/fac/sci/maths/people/staff/dyson/

Suruchi Bakshi (2013) Mathematical modelling of Centrosomin incorporation in Drosophila centrosomes (co-supervisor) Jessica McGillen (2014) Mathematical modelling of metabolism and acidity in cancer (co-supervisor) Debbie Markham (2014) Spatial correlation models for cell populations (co-supervisor) Sofia Piltz (2014) Models for adaptive feeding and population dynamics in plankton (co-supervisor) https://lsa.umich.edu/math/people/postdoc-faculty/piltz.html

Anthony Connor (2015) In silico modelling of tumour-induced angiogenesis (co-supervisor) Lucy Bowden (2015) Mathematical approaches to modelling healing of full thickness circular skin wounds (co-supervisor) Himadri Mukhopadhyay (2015) Multisite phosphorylation in T cell receptor proximal signalling (co-supervisor) Melissa Lever (2015) Phenotypic models for T cell activation(co-supervisor) [Dunn School of Pathology] Linus Schumacher (2015) A mathematical exploration of principles of collective cell migration and self-organisation (co-supervisor) [Winner, Reinhart Heinrich Award for best thesis 2015] https://www.imperial.ac.uk/people/l.schumacher

Noemi Picco (2016) Tumour-stromal interactions in cancer progression and drug resistance (co-supervisor) https://www.dpag.ox.ac.uk/team/noemi-picco

Lucy Hutchinson (2016) Mathematical models of anti-angiogenic therapy and vessel normalisation (co-supervisor) Samara Pillay (2017) Modelling angiogenesis: A discrete to continuum approach (co-supervisor)