ROBIN THOMPSON

Lady Margaret Hall
Oxford OX2 6QA

robin.thompson@lmh.ox.ac.uk

EDUCATION AND RESEARCH POSITIONS

2016 – Present **Department of Zoology, University of Oxford**

- Postdoctoral research assistant in Evolutionary Epidemiology (supervised by Dr Katrina Lythgoe).
- Building and analysing mathematical and computational models to investigate the impact of pathogen evolution on the dynamics of infectious disease outbreaks.

2015 – 2016 **Department of Computer Science, University of Oxford**

- Postdoctoral research assistant in Computational Biology (supervised by Prof. David Kay and Dr Rafel Bordas).
- Developing computational models of the respiratory system.

2011 – 2015 **Gonville and Caius College, University of Cambridge**

- PhD in Mathematical Biology, Department of Plant Sciences (supervised by Dr Nik Cunniffe and Prof. Chris Gilligan).
- Thesis title: Parameter inference and outbreak modelling for forecasting and optimising control of invading infectious diseases.

2007 – 2011 **Worcester College, University of Oxford**

- MMath in Mathematics, first class honours.
- Dissertation title: Modelling cell migration and adhesion during development (supervised by Professor Ruth Baker and Dr Christian Yates).

PUBLICATIONS

- Thompson, R.N., Gilligan, C.A. and Cunniffe, N.J., Will an invading disease overwhelm available control resources?, In preparation.
- Thompson, R.N. and Cunniffe, N.J., Control fast or control smart? When should invading pathogens be controlled?, In preparation.
- Thompson, R.N., Gilligan, C.A. and Cunniffe, N.J., Detecting presymptomatic infection is necessary to forecast major epidemics in the earliest stages of infectious disease outbreaks, PLoS Comp. Biol., 12(4):e1004836, 2016.
- Thompson, R.N., Cobb, R.C., Gilligan, C.A. and Cunniffe, N.J., Management of invading pathogens should be informed by epidemiology rather than administrative boundaries, Ecol. Model., 324:28-32, 2016.

- Thompson, R.N., Yates, C.A. and Baker, R.E., Modelling cell migration and adhesion during development, Bull. Math. Biol., 74(12):2793-2809, 2012.
- Tappin, S.J., Howard, T.A., Hampson, M.M., Thompson, R.N. and Burns, C.E., On the autonomous detection of coronal mass ejections in heliospheric imager data, J. Geophys. Res., 117(A5):A05103, 2012.

CONFERENCES AND PRESENTATIONS

Oral presentations:

- International Congress of Plant Pathology, China (Aug 2013)
- Society for Mathematical Biology Annual Meeting, USA (Jun 2013)
- University of Lincoln, New Zealand (Jan 2013)
- Models in Population Dynamics and Ecology conference, Brazil (Aug 2013)
- SIAM National Student Conference (May 2012)
- Worms and Bugs lecture series, Cambridge (Jan 2011)

Poster presentations:

- International Epidemiology Workshop, China (Aug 2013)
- American Geophysical Union fall meeting, USA (Dec 2010)

Workshops:

- Dynamics of Infectious Diseases Summer School, Finland (Aug 2014)
- Gates' Epidemiology Workshop, Cambridge (Jul 2013)

PRIZES

Prizes:

- University of Lincoln (New Zealand) academic grant (Dec 2012)
- Frank Smart studentship, including research award of £1000 (Nov 2012)
- "Best talk" prize – SIAM student conference, Manchester (May 2012)
- BBSRC Doctoral Training award (Oct 2011)
- Worcester College prizes for first class performances in Finals (Sep 2010, Sep 2011)
- Nuffield Research Bursary (Aug 2010)
- REU Research Bursary (Jun 2010)
- Worcester College scholarship (Sep 2009)
- Various travel grants

TEACHING

2014 – Present **Lady Margaret Hall, University of Oxford**

- Stipendiary lectureship in Applied Mathematics. Delivering weekly tutorials on first and second year undergraduate courses including Differential Equations, Calculus of Variations, Fluid Dynamics and

Mathematical Biology. Other responsibilities involve conducting admissions interviews and setting/marking internal examinations.

2014 **University of Cambridge**

- Lectured Part IA Mathematical Biology. Delivered matrix modelling lectures (to 200 students) and ran associated computer programming practicals.

2011 – 2014 **University of Cambridge**

- Gave weekly supervisions in Part IA Mathematical Biology for a range of colleges (10 students per year), and assisted the running of associated computer programming practicals.
- Part II and Part III dissertation co-supervisor (3 students).

2014 – Present **Wellcome Trust Epidemiology Course**

- Delivering epidemiological modelling lectures to policymakers and epidemiologists.

2011 – 2013 **Worcester College, University of Oxford**

- Non-stipendiary lectureship in Applied Mathematics (15 students per year).

WORK EXPERIENCE

2015 **Outer Temple Chambers, London**

- Conducted data analysis for an ongoing court case.

2014 **UK Government**

- Internship in Department for Environment, Food and Rural Affairs.
- Wrote several papers for Chief Scientific Advisor about UK-China Sustainable Agriculture Innovation Network.

2011 **Macquarie Securities Group, London**

- Quantitative analyst internship.

2010 **SouthWest Research Institute, Colorado**

- Wrote a computer program to track coronal mass ejections from Sun to Earth.

POSITIONS OF RESPONSIBILITY

2013 – Present **Reviewing:**

- Journal of Biological Systems.
- Proceedings of the International Conference of Numerical Analysis and Applied Mathematics.

2013 – 2014 **University of Cambridge**

- Captain of University of Cambridge Crusaders (2nd XI) cricket.

2012 – 2013 **Gonville and Caius College, University of Cambridge**

- MCR President.

EXTRA-CURRICULAR

Cricket

- University of Cambridge Blues and Crusaders (Oct 2011 – Aug 2015)
- University of Oxford Blues, including tour to India 2011 (Oct 2007 – Sep 2011)
- Marylebone Cricket Club (Jan 2014 - Present)

Music

- Play piano (grade 8) and cello (grade 7)
- Played Will (male lead) in *The Academy – the musical* (Apr 2010)
- Worcester College and Hertford College choirs (Oct 2007 – Sep 2011)

REFEREES

- Dr Nik Cunniffe
  Primary PhD supervisor
  Department of Plant Sciences, Downing Street, Cambridge CB2 3EA
  njc1001@cam.ac.uk

- Professor Chris Gilligan
  Secondary PhD supervisor
  Department of Plant Sciences, Downing Street, Cambridge CB2 3EA
  cag1@cam.ac.uk