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Robert Moss

Appointments *Duke University, USA*

- 2012–2014 **Visiting Assistant Professor**, Department of Mathematics.
CNRS, France
- 2010–2012 **Postdoc**, IR4M CNRS UMR8081, Université Paris-Sud.
University of Melbourne, Australia
- 2009–2010 **Research Officer**, Melbourne School of Population and Global Health.

Education *University of Melbourne, Australia*

- 2005–2008 PhD, Renal modelling.
• [Stawell Scholarship](#) recipient, 2008
• Australian Postgraduate Award
- 2000–2004 BSc(Pure Maths), BE(Software, First Class Honors)

Publications *Peer-reviewed journal articles*

- Under Review Moss & Layton. “Dominant factors that govern pressure natriuresis in diuresis and antidiuresis: a mathematical model”, *AJP Renal*.
- Jan 2014 Moss & Thomas. “Hormonal regulation of salt and water excretion: a mathematical model of whole-kidney function and pressure-natriuresis”, *AJP Renal* 306(2): F224–248. **Selected for an Editorial Focus article** ([link](#))
- Dec 2012 Dafilis et al. “Drivers and consequences of influenza antiviral resistant-strain emergence in a capacity-constrained pandemic response”, *Epidemics* 4(4): 219–226.
- Jun 2012 Moss et al. “Virtual Patients and Sensitivity Analysis of the Guyton Model of Blood Pressure Regulation: Towards Individualized Models of Whole-Body Physiology”, *PLoS Comp Biol* 8(6): e1002571.
- Apr 2012 Bolton et al. “An analysis of the likely effectiveness of pharmaceutical and non-pharmaceutical interventions for mitigating influenza transmission in Mongolia”, *Bull WHO* 90(4): 264–271.
- Oct 2011 Hernández et al. “Integration of detailed modules in a core model of body fluid homeostasis and blood pressure regulation”, *Prog Biophys Mol Biol* 107(1): 169–182.
- May 2011 McCaw et al. “A decision support tool for evaluating the impact of a diagnostic-capacity and antiviral-delivery constrained intervention strategy on an influenza pandemic”, *Influenza Other Respi Viruses* 5(Suppl. 1): 212–215.
- Feb 2011 Moss et al. “Diagnosis and Antiviral Intervention Strategies for Mitigating an Influenza Epidemic”, *PLoS ONE* 6(2): e14505.
- Nov 2009 Moss et al. “Discrete network models of interacting nephrons”, *Physica D* 238(22): 2166–2176.
- May 2009 Moss et al. “A computational model for emergent dynamics in the kidney”, *Phil. Trans. R. Soc. A* 367(1896): 2125–2140.
- May 2009 Harris et al. “The Virtual Kidney: an e-Science interface and Grid Portal”, *Phil. Trans. R. Soc. A* 367(1896): 2141–2159.

Presentations *Conferences*

- May 2011 French Society of Theoretical Biology (*presented in French*).
Autrans, France.
- Apr 2010 NSW Epidemiology Special Interest Group.
NSW Department of Health.
- Mar 2010 MISMS Oceania Regional Influenza Meeting.
Melbourne Business School.
- Dec 2009 NHMRC H1N1 workshop.
Canberra, ACT.
- Sep 2008 UK e-Science 2008 All Hands Meeting.
University of Edinburgh, Scotland.
- Jul 2007 Complex 07: 8th Asia-Pacific Complex Systems Conference.
Gold Coast, Queensland.
• Best Talk in Track.
- Feb 2007 [The Kidney: Cellular, Tubular, and Vascular Physiology](#).
Mathematical Biosciences Institute, Ohio State University.

Seminars

- Aug 2013 Department of Biomedical Physiology and Kinesiology,
Simon Fraser University.
- Sep 2009 Department of Nephrology, Austin Hospital.
- May 2009 Mathematics Department, University of Melbourne.
- Dec 2008 Laboratory IBISC, Université d'Evry Val d'Essonne.
- Aug 2008 PhD Completion Seminar.
Department of Computer Science and Software Engineering.
University of Melbourne.

Posters

- Apr 2013 Experimental Biology 2013.
- Apr 2012 Experimental Biology 2012.
- Apr 2011 Experimental Biology 2011.
- Sep 2010 VPH 2010 Annual Conference.

Teaching *Lecturer*

- 2013 Multivariable Calculus, Duke University

Team Supervisor

- 2007–2008 Software Engineering Project, University of Melbourne

Tutor

- 2005–2008 Software Engineering Methods & Testing, University of Melbourne
- 2001–2004 Software Engineering Principles & Tools, University of Melbourne

Grants & Awards

- 2010 [The Origins of Renal Physiology](#), MDIBL.
- 2008 [Stawell Scholarship](#) recipient.

Professional Service *Manuscript Reviewer*

American Journal of Physiology – Renal Physiology
BMC Infectious Diseases
Mathematical Medicine & Biology

References *Available upon request*