

Melbourne School of Population & Global Health
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Robert Moss
2018-06-22

Education *University of Melbourne, Australia*
2005-2008 PhD, Department of Computer Science and Software Engineering.
• [Stawell Scholarship](#) recipient, 2008
• Australian Postgraduate Award
2000-2004 BSc(Pure Maths), BE(Software, First Class Honours)

Appointments *University of Melbourne, Australia*
Aug 2014- **Research Fellow**, Melbourne School of Population and Global Health.

University of Melbourne, Australia
Feb 2016-Dec 2017 **Academic Convener** (0.2 FTE), Data, Systems and Society Research Network.

Duke University, USA
Oct 2012-Jul 2014 **Visiting Assistant Professor**, Department of Mathematics.

CNRS, France
Jul 2010-Aug 2012 **Postdoc**, IR4M CNRS UMR8081, Université Paris-Sud.

University of Melbourne, Australia
Aug 2009-Jul 2010 **Research Officer**, Melbourne School of Population and Global Health.

- Publications** *Peer-reviewed journal articles*
18. Feb 2018 **Moss R**, Fielding JE, Stephens N, McVernon J, Dawson P, McCaw JM. “Epidemic forecasts as a tool for public health: interpretation and (re)calibration”, *Aust N Z J Public Health* 42(1): 69-76.
Citations: -. **Impact Factor:** 1.690.
 17. Feb 2017 Zarebski AE, Dawson P, McCaw JM, **Moss R**. “Model selection for seasonal influenza forecasting”, *Infect Dis Mod* 2(1): 56-70.
Citations: 1. **Impact Factor:** NA; first issue in Oct 2016.
 16. Jan 2017 **Moss R**, Zarebski AE, Dawson P, McCaw JM. “Retrospective forecasting of the 2010-14 Melbourne influenza seasons using multiple surveillance systems”, *Epidemiol Infect* 145(1): 156-169.
Citations: 4. **Impact Factor:** 2.075.
 15. Oct 2016 **Moss R**, McCaw JM, Cheng AC, Hurt AC, McVernon J. “Reducing disease burden in an influenza pandemic by targeted delivery of neuraminidase inhibitors: mathematical models in the Australian context”, *BMC Infect Dis* 16(1): 552.
Citations: 1. **Impact Factor:** 2.768.
 14. Sep 2016 **Moss R**, Hickson RI, McVernon J, McCaw JM, Hort K, Black J, Madden JR, Tran NH, McBryde ES, Geard N. “Model-informed risk assessment and decision making for an emerging infectious disease in the Asia-Pacific region”, *PLoS Negl Trop Dis* 10(9): e0005018.
Citations: 2. **Impact Factor:** 3.834.
 13. Jul 2016 **Moss R**, Zarebski AE, Dawson P, McCaw JM. “Forecasting influenza outbreak dynamics in Melbourne from Internet search query surveillance data”, *Influenza Other Respir Viruses* 10(4): 314-323.
Citations: 13. **Impact Factor:** 2.677.

12. Aug 2015 Cao P, Yan AWC, Heffernan JM, Petrie S, **Moss R**, Carolan LA, Guarnaccia TA, Kelso A, Barr IG, McVernon J, Laurie KL, McCaw JM. “Innate immunity and the inter-exposure interval determine the dynamics of secondary influenza virus infection and explain observed viral hierarchies”, *PLoS Comp Biol* 11(8): e1004334.
Citations: 16. **Impact Factor:** 4.542.
11. May 2014 **Moss R**, Layton AT. “Dominant factors that govern pressure natriuresis in diuresis and antidiuresis: a mathematical model”, *AJP Renal* 306(9): F952–F969.
Citations: 15. **Impact Factor:** 3.611.
10. Jan 2014 **Moss R**, Thomas SR. “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)
Citations: 18. **Impact Factor:** 3.611.
9. Dec 2012 Dafilis MP, **Moss R**, McVernon J, McCaw J. “Drivers and consequences of influenza antiviral resistant-strain emergence in a capacity-constrained pandemic response”, *Epidemics* 4(4): 219–226.
Citations: 3. **Impact Factor:** 2.290.
8. Jun 2012 **Moss R**, Grosse T, Marchant I, Lassau N, Gueyffier F, Thomas SR. “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.
Citations: 14. **Impact Factor:** 4.542.
7. Apr 2012 Bolton KJ, McCaw JM, **Moss R**, Morris RS, Wang S, Burma A, Darma B, Narangerel D, Nymadawa P, McVernon J. “An analysis of the likely effectiveness of pharmaceutical and non-pharmaceutical interventions for mitigating influenza transmission in Mongolia”, *Bull WHO* 90(4): 264–271.
Citations: 11. **Impact Factor:** 5.089.
6. Oct 2011 Hernández AI, Le Rolle V, Ojeda D, Baconnier P, Fontecave-Jallon J, Guillaud F, Grosse T, **Moss R**, Hannaert P, Thomas SR. “Integration of detailed modules in a core model of body fluid homeostasis and blood pressure regulation”, *Prog Biophys Mol Biol* 107(1): 169–182.
Citations: 20. **Impact Factor:** 3.227.
5. May 2011 McCaw JM, **Moss R**, McVernon J. “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.
Citations: 2. **Impact Factor:** 2.677.
4. Feb 2011 **Moss R**, McCaw JM, McVernon J. “Diagnosis and Antiviral Intervention Strategies for Mitigating an Influenza Epidemic”, *PLoS ONE* 6(2): e14505.
Citations: 26. **Impact Factor:** 2.806.
3. Nov 2009 **Moss R**, Kazmierczak E, Kirley M, Harris PJ. “Discrete network models of interacting nephrons”, *Physica D* 238(22): 2166–2176.
Citations: 3. **Impact Factor:** 1.514.
2. May 2009 **Moss R**, Kazmierczak E, Kirley M, Harris PJ. “A computational model for emergent dynamics in the kidney”, *Phil. Trans. R. Soc. A* 367(1896): 2125–2140.
Citations: 8. **Impact Factor:** 2.970.
1. May 2009 Harris PJ, Buyya R, Chu X, Kobialka T, Kazmierczak E, **Moss R**, Appelbe W, Hunter PJ, Thomas SR. “The Virtual Kidney: an e-Science interface and Grid Portal”, *Phil. Trans. R. Soc. A* 367(1896): 2141–2159.
Citations: 5. **Impact Factor:** 2.970.

Government reports

- Jun 2018 McVernon J, Fielding JE, Macartney K, Beard F, Subbarao K, Sullivan S, Williams J, Dawson A, Gilbert L, Massey P, Miller A, Durrheim D, Crooks K, McCaw JM, **Moss R**. “Investigate and model initial pandemic influenza vaccine target groups.” Reporting Deliverable 2 (Ethical Framework) to the Office of Health Protection, Australian Government Department of Health.
- Apr 2018 McVernon J, Fielding JE, Macartney K, Beard F, Subbarao K, Sullivan S, Dawson A, Gilbert L, Massey P, Miller A, Durrheim D, Crooks K, McCaw JM, **Moss R**. “Investigate and model initial pandemic influenza vaccine target groups.” Reporting Deliverable 1 (Evidence Review) to the Office of Health Protection, Australian Government Department of Health.
- May 2016 Hunter A, Fielding JE, **Moss R**, McVernon J, McCaw JM, Glass K. “Review models of health care delivery in an influenza pandemic.” Reporting Deliverable 2 (Stakeholder Consultations) to the Office of Health Protection, Australian Government Department of Health.
- May 2016 Hunter A, Fielding JE, **Moss R**, McVernon J, McCaw JM, Glass K. “Model infection control with personal protective equipment during an influenza pandemic.” Reporting Deliverable 2 (Stakeholder Consultations) to the Office of Health Protection, Australian Government Department of Health.
- Apr 2016 Hunter A, McVernon J, **Moss R**, McCaw JM, Fielding JE, Glass K. “Review models of health care delivery in an influenza pandemic.” Reporting Deliverable 1 (Literature Review & Simulation Modelling) to the Office of Health Protection, Australian Government Department of Health.
- Apr 2016 Hunter A, McVernon J, **Moss R**, McCaw JM, Fielding JE, Glass K. “Model infection control with personal protective equipment during an influenza pandemic.” Reporting Deliverable 1 (Literature Review & Simulation Modelling) to the Office of Health Protection, Australian Government Department of Health.
- Aug 2015 McCaw JM, **Moss R**, McVernon J, Cheng A. “Review current evidence on the use of neuraminidase inhibitors held in the National Medical Stockpile, in a pandemic.” Reporting Deliverable 2 (Model Analysis) to the Office of Health Protection, Australian Government Department of Health.
- Jun 2015 McVernon J, Cheng A, McCaw JM, **Moss R**. “Review current evidence on the use of neuraminidase inhibitors held in the National Medical Stockpile, in a pandemic.” Reporting Deliverable 1 (Evidence Review) to the Office of Health Protection, Australian Government Department of Health.
- Apr 2015 McBryde E, Marshall C, Doan T, Hickson R, Davis M, McCaw JM, McVernon J, **Moss R**, Geard N, Hort K, Black J, Madden J, Tran N, Giesecke J, Ragonnet R, Peach E, Harris T. “Risk of importation and economic consequences of Ebola in the Asia Pacific Region.” Final report to the Department of Foreign Affairs and Trade.
- Dec 2014 McBryde E, Marshall C, Doan T, Ragonnet R, Peach E, McCaw JM, McVernon J, **Moss R**, Geard N, Hort K, Black J, Madden J, Tran N, Giesecke J, Harris T. “Modelling of Ebola risk in the Asia-Pacific region to inform policy strategy.” Interim report to the Department of Foreign Affairs and Trade.

Book chapters

- Aug 2016 McVernon J, Wood J (eds). “A User’s Guide to Infectious Disease Modelling”, [PRISM² CRE](#). ISBN: 978-0-7340-5303-9.

Other publications

- Jun 2016 McVernon J, Ross J, Glass K, Mitchell L, Geard N, **Moss R**. “[Computing helps the study of infections on a global and local scale](#)”, *The Conversation*.

Aug 2015 **Moss R**, McCaw JM, McVernon J. “Why predicting a flu outbreak is like betting on football or flipping a coin”, *The Conversation*.

Awards Net amount: \$32,000

May 2018 CIVSEC 2018 National Innovation Award for Civil Security. Lau T, Skvortsov A, Ristic B, Gailis R, Dawson P, McCaw J, **Moss R**. *Civil Security Congress and Exposition, Industry Defence and Security Australia Ltd*.

May 2018 CIVSEC 2018 Innovation Award for Disaster Relief, Emergency Management and Humanitarian Services. Lau T, Skvortsov A, Ristic B, Gailis R, Dawson P, McCaw J, **Moss R**. *Civil Security Congress and Exposition, Industry Defence and Security Australia Ltd*.

Aug 2017 Policy relevant infectious disease simulation and mathematical modelling (PRISM²) NHMRC Centre of Research Excellence; *Winner: Best Postdoctoral Presentation*. **Moss R. Funding: \$2,000**.

Sep 2010 **Moss R**, selected to attend *The Origins of Renal Physiology* (an intensive one-week laboratory course), *Mount Desert Island Biological Laboratory, USA*.

Aug 2008 **Stawell Scholarship** recipient. **Moss R. Funding: \$10,000**.

2005-2008 Australian Postgraduate Award. **Moss R. Funding: \$20,000 per annum**.

Grants Net amount: \$1,159,471

Jun 2018 Solicited tender: McVernon J, **Moss R**, Carvalho N, Herz J, Herry G, Sullivan S. Supply arrangements for pandemic influenza vaccine. *Office of Health Protection, Australian Government Department of Health*. **Funding: \$212,000**.

Feb 2018 Solicited tender: McVernon J, Fielding J, Macartney K, Beard F, Subbarao K, Sullivan S, Dawson A, Gilbert L, Massey P, Miller A, Durrheim D, Crooks K, McCaw J, **Moss R**. Investigate and model initial pandemic influenza vaccine target groups. *Office of Health Protection, Australian Government Department of Health*. **Funding: \$175,802**.

Jan 2017 Policy relevant infectious disease simulation and mathematical modelling (PRISM²) NHMRC Centre of Research Excellence; *Postdoctoral Researcher and PhD Student Funding Scheme*. **Moss R. Funding: \$1,847**.

Oct 2016 Policy relevant infectious disease simulation and mathematical modelling (PRISM²) NHMRC Centre of Research Excellence; *Seed Funding Grant*. Mitchell L*, **Moss R***. **Funding: \$3,300**.

Aug 2016 Research agreement: McCaw JM, **Moss R**. Epidemic modelling for infectious diseases forecast. *Defence Science and Technology Group*. **Funding: \$384,550**.

Jun 2016 Melbourne Networked Society Institute; Seed Funding Scheme. *Evaluation of large-scale tracking data for epidemiological forecasting of influenza epidemics was successful*. Tomko M, **Moss R**, Gerd N. **Funding: \$45,000**.

Feb 2016 Solicited tender: McVernon J, McCaw JM, **Moss R**, Hunter A, Fielding JE, Glass K. Model infection control with personal protective equipment during an influenza pandemic. *Office of Health Protection, Australian Government Department of Health*. **Funding: \$39,969**.

Feb 2016 Solicited tender: McVernon J, McCaw JM, **Moss R**, Hunter A, Fielding JE, Glass K. Review models of health care delivery in an influenza pandemic. *Office of Health Protection, Australian Government Department of Health*. **Funding: \$126,558**.

Nov 2015 Policy relevant infectious disease simulation and mathematical modelling (PRISM²) NHMRC Centre of Research Excellence; *Postdoctoral Researcher and PhD Student Funding Scheme*. **Moss R. Funding: \$3,675**.

- Jun 2015 Solicited tender: McVernon J, McCaw JM, **Moss R**, Cheng A, Hurt A. Review current evidence on the use of neuraminidase inhibitors held in the National Medical Stockpile, in a pandemic. *Office of Health Protection, Australian Government Department of Health*. **Funding:** \$90,770.
- Dec 2014 Solicited tender: McBryde E, Marshall C, Doan T, Ragonnet R, Peach E, McCaw JM, McVernon J, **Moss R**, Geard N, Hort K, Black J, Madden J, Tran N, Giesecke J, Harris T. Risk and economic implications of importation, transmission and established epidemic of Ebola in the Asia-Pacific Region. *Department of Foreign Affairs and Trade*. **Funding:** \$76,000.

Teaching *Lecturer*

- 2018 Declarative Programming, University of Melbourne
 2016,2017 Infectious Disease Modelling, University of Melbourne
 2015,2016 Guest Lecturer, Mathematics for Biomedicine, University of Melbourne
 2015 Advanced Modelling: Case Studies, University of Melbourne
 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

Supervision

- 2018 Monica Nation, MPH
Influenza vaccination and mortality in elderly patients
- 2018 Anabel Gil, MPH
Seasonal influenza epidemics variation in the state of Victoria
- 2015-2018 Alexander Zarebski, PhD
Statistical forecasting methods
- 2015 William Cuningham, MSc (Epidemiology)
Defining optimal implementation strategies for antenatal influenza vaccination in temperate climates

Presentations *Invited Talks*

- Apr 2018 **Moss R**, Zarebski AE, McCaw JM. "Who watches the watchmen?". *Mathematics of Biological Systems Management Symposium*. University of Melbourne, Melbourne.
- Nov 2017 **Moss R**, Zarebski AE, McCaw JM. "Epidemic forecasting: circulating strains, population immunity, and other headaches". *NHMRC Influenza Program (2014-19) annual retreat*. University of Melbourne, Melbourne.
- Nov 2017 **Moss R**, Zarebski AE, McCaw JM. "Epidemic forecasts as a (potential) tool for public health". *12th Australian Influenza Symposium*. Peter Doherty Institute for Infection and Immunity, Melbourne.
- Oct 2017 Tomko M, **Moss R**, Naghi Zadeh Kakhki E, Geard N. "Mapping Urban Mobility for Flu Forecasting". *Networked Society Symposium 2017*. University of Melbourne, Melbourne.
- Aug 2016 **Moss R**. "Where did I come from? The facts of life without any nonsense and with illustrations". *MSoG Policy Labs: Interdisciplinary Ways of Working*. Melbourne School of Government, The University of Melbourne.

- Jun 2016 McVernon J, Fielding J, **Moss R**. “Models of Health Care Delivery & Infection Control with PPE during an Influenza Pandemic – project outcomes”. *Communicable Diseases Network Australia face-to-face meeting*. Australian Department of Health, Adelaide.
- Nov 2015 **Moss R**, Zarebski AE, Dawson P, Lau T, McCaw JM. “Forecasting seasonal influenza epidemics in Australia (using mathematical models)”. *National Influenza Surveillance Committee face-to-face meeting*. Australian Department of Health, Canberra.
- Jul 2015 McVernon J, Cheng AC, McCaw JM, **Moss R**, Hurt AC. “Strategic distribution of NAIs in a pandemic – simulation modelling & international context”. *Presentation of draft report*. Australian Department of Health, Canberra.
- Presentation to Australia’s Chief Medical Officer, Prof Chris Baggoley.
- Jun 2015 **Moss R**, Zarebski AE, Dawson P, McCaw JM. “Epidemic forecasting from surveillance data via Bayesian estimation”. *Communicable Diseases Network Australia Jurisdictional Executive Group*. Australian Department of Health, Melbourne.
- Jun 2015 **Moss R**, Zarebski AE, Dawson P, McCaw JM. “Epidemic forecasting from surveillance data via Bayesian estimation”. Quantitative & Applied Ecology Group, University of Melbourne.
- May 2015 **Moss R**, Dawson P, McCaw JM. “Epidemic forecasting from surveillance data (using recursive Bayesian estimation)”. *Infectious Diseases Epidemiology & Surveillance (IDEAS) meeting*. Victorian Department of Health & Human Services.
- Apr 2015 **Moss R**. “Epidemic detection and forecasting from surveillance data via Bayesian estimation”. *PRISM² NHMRC Centre of Research Excellence inaugural meeting*. The University of Melbourne.
- Dec 2014 **Moss R**, Thomas SR, Layton AT. “Predicting hormonal regulation of renal function: a 5,000 piece jigsaw puzzle”. Australia & New Zealand Mathematics Convention. The University of Melbourne.
- May 2014 **Moss R**. “Regulation of renal function: building a detailed and coherent mathematical model”. *Molecular to Systems Physiology*. Mathematical Biosciences Institute, Ohio State University.
- Aug 2013 **Moss R**. “Mathematical modelling: hormonal regulation of water and salt excretion”. Department of Biomedical Physiology and Kinesiology. Simon Fraser University, Vancouver.
- Sep 2009 **Moss R**. “The Clinical Applications of Renal Modelling”. Department of Nephrology, Austin Hospital, Melbourne.
- Dec 2008 **Moss R**. “A computational model for studying emergent dynamics in the kidney”. Laboratory IBISC, Université d’Evry Val d’Essonne, France.
- Conferences*
- Aug 2017 **Moss R**, Zarebski AE, Cope RC, Mitchell L. “Using non-specific rate data to estimate denominators for notifications data”. *PRISM² Annual Conference*. University of Melbourne.
- Winner: Best Postdoc Talk. **Funding:** \$2,000.
- Feb 2017 **Moss R**, Zarebski AE, McCaw JM. “Bayesian forecasting of seasonal influenza: putting prior knowledge into the prior”. *Australia & New Zealand Industrial & Applied Mathematics Conference*. Hahndorf, South Australia.
- Jan 2016 **Moss R**, McCaw JM, McVernon J, Cheng AC, Hurt AC. “Evaluating pandemic preparedness and intervention strategies subject to available healthcare capacity and clinical pathways: a modelling study”. *Incidence, Severity, and Impact of Influenza 2016*. Institut Pasteur, Paris, France.

- Feb 2015 **Moss R**, McCaw JM, Dawson P. “Epidemic detection and forecasting from surveillance data via Bayesian estimation”. *Australia & New Zealand Industrial & Applied Mathematics Conference*. Gold Coast, Queensland.
- May 2011 **Moss R**, Grosse T, Thomas SR. “La construction d’un modèle multi-agent du rein”. *French Society of Theoretical Biology (presented in French)*. Autrans, France.
- Apr 2010 **Moss R**, McCaw JM, McVernon J, Wood J, McBryde E. *NSW Epidemiology Special Interest Group*. NSW Department of Health, Sydney.
- Mar 2010 **Moss R**, McCaw JM, McVernon J, Wood J, McBryde E. *MISMS Oceania Regional Influenza Meeting*. Melbourne Business School, Melbourne.
- Dec 2009 McCaw JM, McVernon J, Wood J, McBryde E, **Moss R**. “Strategies for Antiviral Usage: Modelling Diagnosis & Treatment”. *NHMRC H1N1 workshop*. Canberra, ACT.
- Sep 2008 **Moss R**. *UK e-Science 2008 All Hands Meeting*. University of Edinburgh, Scotland.
- Jul 2007 **Moss R**. “A Preliminary Model for Studying the Interactions Between Nephrons”. *Complex 07: 8th Asia-Pacific Complex Systems Conference*. Gold Coast, Queensland.
- Winner: Best Talk in Track.
- Feb 2007 **Moss R**. “A Preliminary Model for Studying the Interactions Between Nephrons”. *The Kidney: Cellular, Tubular, and Vascular Physiology*. Mathematical Biosciences Institute, Ohio State University.
- Seminars*
- May 2015 **Moss R**, Dawson P, McCaw JM. “Epidemic forecasting from surveillance data via Bayesian estimation”. *Mathematical & Computational Biology Group*. University of Melbourne.
- Sep 2014 **Moss R**. “Regulation of renal function: building a detailed and coherent mathematical model”. *MathBio Interest Group*. University of Melbourne.
- May 2009 **Moss R**. “Decoupled equations for studying complex systems”. School of Mathematics and Statistics, University of Melbourne.
- Aug 2008 **Moss R**. *PhD Completion Seminar*. Department of Computer Science and Software Engineering, University of Melbourne.
- Posters*
- Dec 2015 **Moss R**, Zarebski AE, Dawson P, McCaw JM. “Forecasting influenza outbreak dynamics from metropolitan Melbourne surveillance data”. *Epidemics 5: Fifth International Conference on Infectious Disease Dynamics*. Florida, USA.
- Apr 2014 **Moss R**, Layton AT. “A dynamic mathematical model of water & solute excretion”. *Experimental Biology 2014*. San Diego, USA.
- Apr 2013 **Moss R**, Layton AT. “Modeling the effects on medullary blood flow regulation on pressure natriuresis”. *Experimental Biology 2013*. Boston, USA.
- Apr 2012 **Moss R**, Grosse T, Thomas SR. “Exploration of pressure-natriuresis mechanisms using a lumped, six-nephron whole-kidney model”. *Experimental Biology 2012*. San Diego, USA.
- Apr 2011 **Moss R**, Grosse T, LeRolle V, Hernandez A, Thomas SR. “Extended sensitivity analysis of the Guyton model of blood pressure regulation”. *Experimental Biology 2011*. Washington, D.C., USA.
- Sep 2010 Grosse T, **Moss R**, Bazin J, LeRolle V, Fontecave-Jallon J, Guillaud F, Hannaert P, Baconnier P, Hernandez A, Thomas SR. “Sensitivity analysis of the Guyton model of blood pressure regulation I: Global analysis of the whole model”. *VPH 2010 Annual Conference*. Brussels, Belgium.

Professional Service *Manuscript Reviewer*
 Acta Biotheoretica
 American Journal of Physiology – Renal Physiology
 BMC Infectious Diseases
 BMC Public Health
 Communicable Diseases Intelligence
 Epidemiology and Infection
 Interface Focus
 Involve, a Journal of Mathematics
 Journal of Pharmacokinetics and Pharmacodynamics
 Mathematical Medicine & Biology
 Open Forum Infectious Diseases
 PLoS Computational Biology
 PLoS ONE

Grant Reviewer

2017, 2018 NHMRC Project Grants
 2017 External scientific advisor, Project Grant: “In silico preclinical models for the preservation of renal organ in vivo & ex vivo” (3 labs, 9 investigators).
 French National Research Agency

Event Organisation

Nov 2017 Shaping the future workforce of digital research experts at Melbourne
 (3 separate workshops)
 University of Melbourne
 Aug 2017 PRISM² Professional Development Workshop
 Treacy Centre, Melbourne
 Jun 2017 PRISM² Infectious Disease Forecasting Workshop
 University of Melbourne
 Jun 2017 PRISM² Modelling Literacy Workshop
 Communicable Diseases Control Conference (CDCC)
 Melbourne
 Nov 2016 DSSRN Garage Sale
 University of Melbourne
 Sep 2016 Data, Systems and Society Research Network (DSSRN) launch event
 University of Melbourne

External Engagement Events

May 2018 Pandemic vaccination prioritisation and sequencing: Evidence and ethics
 workshop
 University of Sydney.
 Apr 2018 Models of Care for Pandemic Influenza: Presentation & Discussion
 Victorian Department of Health and Human Services, Melbourne.
 Jun 2017 PRISM² Modelling Literacy Workshop
 Communicable Diseases Control Conference (CDCC)
 Melbourne
 Aug 2016 MSoG Policy Labs: *Interdisciplinary Ways of Working*
 Melbourne School of Government, The University of Melbourne.
 Jun 2016 Communicable Diseases Network Australia face-to-face meeting
 Australian Department of Health, Adelaide.
 Nov 2015 National Influenza Surveillance Committee face-to-face meeting
 Australian Department of Health, Canberra.

Oct 2015 PRISM² Policy Translation workshop
Improving the communication of scientific results to policy makers
Attendees included public servants from:

- Australian Department of Defence
- Australian Department of Foreign Affairs & Trade
- Australian Department of Health

Australian National University, Canberra

May 2015 Infectious Diseases Epidemiology & Surveillance (IDEAS) meeting.
Victorian Department of Health & Human Services.

Media Contributions

May 2018 Approached for comment, news story for *Communications of the ACM*.
Mar 2018 Quoted in “Disease maps to predict the arrival of flu just as weather maps predict rain”, *Australian Financial Review*.
Feb 2018 Contributed to, and quoted in, “Forecasting flu outbreaks”, *Pursuit*.
Also covered by *Futurity* and *IT News*.
Jan 2018 Approached for comment, news story for *Scientific American*.
Nov 2017 Quoted in “How Bad Will the Flu Season Get? Forecasters Are Competing to Figure it Out”, *The Scientist*.
Nov 2016 Quoted in “Flu outbreaks are subject to humidity – not just heat”, *Cosmos*.
Jul 2016 Quoted in “Defence scientists’ bio attack detector could predict flu outbreaks”, *The Herald Sun*.

Committees

Jan 2018– MSPGH Research Computing Working Group
Feb 2016–Dec 2018 Data, Systems and Society Research Network

Professional Courses

Oct 2016 Social Media: Theory (Melbourne Centre for the Study of Higher Education)
Oct 2016 Social Media: Practice (Melbourne Centre for the Study of Higher Education)
Apr 2016 Writing Opinion Pieces (Melbourne Centre for the Study of Higher Education)

Affiliations

2016 Melbourne School of Government Policy Labs
2014– Australian Mathematical Society (AMS)
2014– Australia & New Zealand Industrial and Applied Mathematics (ANZIAM)

Research Software Tools/Packages

Whole-kidney model of salt and water excretion.

CeCILL v2.0 or CeCILL-C v1.0, also available as a virtual environment.

pyppfilt: bootstrap particle filter package for Python.

BSD 3-Clause license, available in the Python Package Index (PyPI).

epifx: epidemic forecasting package for Python.

BSD 3-Clause license, available in the Python Package Index (PyPI).

lhs_framework: Latin hypercube sampling (LHS) framework for MATLAB.

GNU GPLv3 or later, available on figshare.

Used independently by other researchers in:

- 1 peer-reviewed publication: Campbell PT et al., *Vaccine* 33(43), 2015;
- 2 conference presentations;
- 1 conference poster;
- 2 technical reports to the World Health Organisation; and
- 1 technical report to the Australian Department of Health.

References Available upon request