James M Mccaw

List of Publications by Year in Descending Order

116 papers	2,219 citations	25 h-index	42 g-index
130 ext. papers	2,740 ext. citations	5.4 avg, IF	4.92 L-index

#	Paper	IF	Citations
116	Hypnozoite dynamics for Plasmodium vivax malaria: the epidemiological effects of radical cure.. *Journal of Theoretical Biology*, **2022**, 537, 111014	2.3	0
115	Estimation of the probability of epidemic fade-out from multiple outbreak data.. *Epidemics*, **2022**, 38, 100539	5.1	0
114	Rapid assessment of the risk of SARS-CoV-2 importation: case study and lessons learned.. *Epidemics* , **2022**, 38, 100549	5.1	0
113	COVID-19 in low-tolerance border quarantine systems: Impact of the Delta variant of SARS-CoV-2.. *Science Advances*, **2022**, 8, eabm3624	14.3	1
112	Modelling the Effect of MUC1 on Influenza Virus Infection Kinetics and Macrophage Dynamics. *Viruses*, **2021**, 13,	6.2	2
111	Modelling within-host macrophage dynamics in influenza virus infection. *Journal of Theoretical Biology*, **2021**, 508, 110492	2.3	5
110	Antibody Dynamics for Plasmodium vivax Malaria: A Mathematical Model. *Bulletin of Mathematical Biology*, **2021**, 83, 6	2.1	3
109	Constructing an ethical framework for priority allocation of pandemic vaccines. *Vaccine*, **2021**, 39, 797-804	4.1	3
108	Development of an influenza pandemic decision support tool linking situational analytics to national response policy. *Epidemics*, **2021**, 36, 100478	5.1	0
107	An Activation-Clearance Model for Plasmodium vivax Malaria. *Bulletin of Mathematical Biology*, **2020**, 82, 32	2.1	3
106	Coordinating the real-time use of global influenza activity data for better public health planning. *Influenza and Other Respiratory Viruses*, **2020**, 14, 105-110	5.6	2
105	Early analysis of the Australian COVID-19 epidemic. *ELife*, **2020**, 9,	8.9	31
104	Author response: Early analysis of the Australian COVID-19 epidemic **2020**,		3
103	Infectious disease pandemic planning and response: Incorporating decision analysis. *PLoS Medicine*, **2020**, 17, e1003018	11.6	37
102	Estimation of the force of infection and infectious period of skin sores in remote Australian communities using interval-censored data. *PLoS Computational Biology*, **2020**, 16, e1007838	5	1
101	Influencing public health policy with data-informed mathematical models of infectious diseases: Recent developments and new challenges. *Epidemics*, **2020**, 32, 100393	5.1	14
100	Coronavirus Disease Model to Inform Transmission-Reducing Measures and Health System Preparedness, Australia. *Emerging Infectious Diseases*, **2020**, 26, 2844-2853	10.2	12

99	Key questions for modelling COVID-19 exit strategies. *Proceedings of the Royal Society B: Biological Sciences*, **2020**, 287, 20201405	4.4	65
98	Estimation of the force of infection and infectious period of skin sores in remote Australian communities using interval-censored data **2020**, 16, e1007838		
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93	Estimation of the force of infection and infectious period of skin sores in remote Australian communities using interval-censored data **2020**, 16, e1007838		
92	Sequential infection experiments for quantifying innate and adaptive immunity during influenza infection. *PLoS Computational Biology*, **2019**, 15, e1006568	5	5
91	Accounting for Healthcare-Seeking Behaviours and Testing Practices in Real-Time Influenza Forecasts. *Tropical Medicine and Infectious Disease*, **2019**, 4,	3.5	8
90	Modeling the dynamics of gametocytes in humans during malaria infection. *ELife*, **2019**, 8,	8.9	15
89	A simple influenza model with complicated dynamics. *Journal of Mathematical Biology*, **2019**, 78, 607-624	2	4
88	A biological model of scabies infection dynamics and treatment informs mass drug administration strategies to increase the likelihood of elimination. *Mathematical Biosciences*, **2019**, 309, 163-173	3.9	10
87	Anatomy of a seasonal influenza epidemic forecast. *Communicable Diseases Intelligence (2018)*, **2019**, 43,	1.9	3
86	Clonally diverse CD38HLA-DRCD8 T cells persist during fatal H7N9 disease. *Nature Communications*, **2018**, 9, 824	17.4	69
85	Evidence for Viral Interference and Cross-reactive Protective Immunity Between Influenza B Virus Lineages. *Journal of Infectious Diseases*, **2018**, 217, 548-559	7	36
84	Epidemic forecasts as a tool for public health: interpretation and (re)calibration. *Australian and New Zealand Journal of Public Health*, **2018**, 42, 69-76	2.3	13
83	The distribution of the time taken for an epidemic to spread between two communities. *Mathematical Biosciences*, **2018**, 303, 139-147	3.9	3
82	Investigating Viral Interference Between Influenza A Virus and Human Respiratory Syncytial Virus in a Ferret Model of Infection. *Journal of Infectious Diseases*, **2018**, 218, 406-417	7	41

81	Within-host modeling of blood-stage malaria. *Immunological Reviews*, **2018**, 285, 168-193	11.3	17
80	New Mathematical Models of Antimalarial Drug Action to Improve Drug Dosing Regimens. *Mathematics for Industry*, **2018**, 7-11	0.1	
79	Investigation of the Decline in Clinical Efficacy of Artemisinin Combination Therapies Due to Increasing Artemisinin and Partner Drug Resistance. *Antimicrobial Agents and Chemotherapy*, **2018**, 62,	5.9	3
78	Predicting the Outcomes of New Short-Course Regimens for Multidrug-Resistant Tuberculosis Using Intrahost and Pharmacokinetic-Pharmacodynamic Modeling. *Antimicrobial Agents and Chemotherapy*, **2018**, 62,	5.9	6
77	Characterization of Influenza B Virus Variants with Reduced Neuraminidase Inhibitor Susceptibility. *Antimicrobial Agents and Chemotherapy*, **2018**, 62,	5.9	11
76	Investigating the Efficacy of Triple Artemisinin-Based Combination Therapies for Treating Plasmodium falciparum Malaria Patients Using Mathematical Modeling. *Antimicrobial Agents and Chemotherapy*, **2018**, 62,	5.9	32
75	Infection-acquired versus vaccine-acquired immunity in an SIRWS model. *Infectious Disease Modelling*, **2018**, 3, 118-135	15.7	4
74	Calculation of the age of the first infection for skin sores and scabies in five remote communities in northern Australia. *Epidemiology and Infection*, **2018**, 146, 1194-1201	4.3	8
73	Turnover of Village Chickens Undermines Vaccine Coverage to Control HPAI H5N1. *Zoonoses and Public Health*, **2017**, 64, 53-62	2.9	1
72	Characterising pandemic severity and transmissibility from data collected during first few hundred studies. *Epidemics*, **2017**, 19, 61-73	5.1	23
71	Influenza as a trigger for cardiovascular disease: An investigation of serotype, subtype and geographic location. *Environmental Research*, **2017**, 156, 688-696	7.9	11
70	Model selection for seasonal influenza forecasting. *Infectious Disease Modelling*, **2017**, 2, 56-70	15.7	13
69	Retrospective forecasting of the 2010-2014 Melbourne influenza seasons using multiple surveillance systems. *Epidemiology and Infection*, **2017**, 145, 156-169	4.3	18
68	A Dynamic Stress Model Explains the Delayed Drug Effect in Artemisinin Treatment of Plasmodium falciparum. *Antimicrobial Agents and Chemotherapy*, **2017**, 61,	5.9	5
67	A mechanistic model quantifies artemisinin-induced parasite growth retardation in blood-stage Plasmodium falciparum infection. *Journal of Theoretical Biology*, **2017**, 430, 117-127	2.3	6
66	Modelling cross-reactivity and memory in the cellular adaptive immune response to influenza infection in the host. *Journal of Theoretical Biology*, **2017**, 413, 34-49	2.3	15
65	The Mechanisms for Within-Host Influenza Virus Control Affect Model-Based Assessment and Prediction of Antiviral Treatment. *Viruses*, **2017**, 9,	6.2	20
64	Periodic solutions in an SIRWS model with immune boosting and cross-immunity. *Journal of Theoretical Biology*, **2016**, 410, 55-64	2.3	4

63	Reducing disease burden in an influenza pandemic by targeted delivery of neuraminidase inhibitors: mathematical models in the Australian context. *BMC Infectious Diseases*, **2016**, 16, 552	4	10
62	High conservation level of CD8(+) T cell immunogenic regions within an unusual H1N2 human influenza variant. *Journal of Medical Virology*, **2016**, 88, 1725-32	19.7	3
61	Heightened self-reactivity associated with selective survival, but not expansion, of naïve virus-specific CD8+ T cells in aged mice. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 1333-8	11.5	40
60	Parasite Strain, Host Immunity, and Circulating Blood Cells with Dead Parasites: Why Predicting Malaria Parasite Clearance Is Not a Simple Task. *Antimicrobial Agents and Chemotherapy*, **2016**, 60, 1172	5.9	2
59	On the extinction probability in models of within-host infection: the role of latency and immunity. *Journal of Mathematical Biology*, **2016**, 73, 787-813	2	13
58	Model-Informed Risk Assessment and Decision Making for an Emerging Infectious Disease in the Asia-Pacific Region. *PLoS Neglected Tropical Diseases*, **2016**, 10, e0005018	4.8	8
57	On the Role of CD8 T Cells in Determining Recovery Time from Influenza Virus Infection. *Frontiers in Immunology*, **2016**, 7, 611	8.4	20
56	Comparison of the Exposure Time Dependence of the Activities of Synthetic Ozonide Antimalarials and Dihydroartemisinin against K13 Wild-Type and Mutant Plasmodium falciparum Strains. *Antimicrobial Agents and Chemotherapy*, **2016**, 60, 4501-10	5.9	38
55	Forecasting influenza outbreak dynamics in Melbourne from Internet search query surveillance data. *Influenza and Other Respiratory Viruses*, **2016**, 10, 314-23	5.6	24
54	Quantifying differences in the epidemic curves from three influenza surveillance systems: a nonlinear regression analysis. *Epidemiology and Infection*, **2015**, 143, 427-39	4.3	4
53	Quantifying relative within-host replication fitness in influenza virus competition experiments. *Journal of Theoretical Biology*, **2015**, 382, 259-71	2.3	14
52	Targeting the cell stress response of Plasmodium falciparum to overcome artemisinin resistance. *PLoS Biology*, **2015**, 13, e1002132	9.7	193
51	A new approach to estimating trends in chlamydia incidence. *Sexually Transmitted Infections*, **2015**, 91, 513-9	2.8	10
50	Interval Between Infections and Viral Hierarchy Are Determinants of Viral Interference Following Influenza Virus Infection in a Ferret Model. *Journal of Infectious Diseases*, **2015**, 212, 1701-10	7	62
49	The effects of demographic change on disease transmission and vaccine impact in a household structured population. *Epidemics*, **2015**, 13, 56-64	5.1	36
48	Defining long-term drivers of pertussis resurgence, and optimal vaccine control strategies. *Vaccine*, **2015**, 33, 5794-5800	4.1	19
47	Factors associated with transmission of influenza-like illness in a cohort of households containing multiple children. *Influenza and Other Respiratory Viruses*, **2015**, 9, 247-54	5.6	8
46	Social encounter profiles of greater Melbourne residents, by location--a telephone survey. *BMC Infectious Diseases*, **2015**, 15, 494	4	14

45	Prior population immunity reduces the expected impact of CTL-inducing vaccines for pandemic influenza control. *PLoS ONE*, **2015**, 10, e0120138	3.7	9
44	Pertussis models to inform vaccine policy. *Human Vaccines and Immunotherapeutics*, **2015**, 11, 669-78	4.4	8
43	Innate Immunity and the Inter-exposure Interval Determine the Dynamics of Secondary Influenza Virus Infection and Explain Observed Viral Hierarchies. *PLoS Computational Biology*, **2015**, 11, e1004334	5	38
42	The dynamical consequences of seasonal forcing, immune boosting and demographic change in a model of disease transmission. *Journal of Theoretical Biology*, **2014**, 361, 124-32	2.3	8
41	The influence of changing host immunity on 1918-19 pandemic dynamics. *Epidemics*, **2014**, 8, 18-27	5.1	7
40	Making the most of clinical data: reviewing the role of pharmacokinetic-pharmacodynamic models of anti-malarial drugs. *AAPS Journal*, **2014**, 16, 962-74	3.7	19
39	Population pharmacokinetics of intravenous artesunate: a pooled analysis of individual data from patients with severe malaria. *CPT: Pharmacometrics and Systems Pharmacology*, **2014**, 3, e145	4.5	12
38	Evaluation of oseltamivir prophylaxis regimens for reducing influenza virus infection, transmission and disease severity in a ferret model of household contact. *Journal of Antimicrobial Chemotherapy*, **2014**, 69, 2458-69	5.1	24
37	Pandemic controllability: a concept to guide a proportionate and flexible operational response to future influenza pandemics. *Journal of Public Health*, **2014**, 36, 5-12	3.5	13
36	Estimating the fitness advantage conferred by permissive neuraminidase mutations in recent oseltamivir-resistant A(H1N1)pdm09 influenza viruses. *PLoS Pathogens*, **2014**, 10, e1004065	7.6	97
35	Dynamical crises, multistability and the influence of the duration of immunity in a seasonally-forced model of disease transmission. *Theoretical Biology and Medical Modelling*, **2014**, 11, 43	2.3	6
34	Virus detection and its association with symptoms during influenza-like illness in a sample of healthy adults enrolled in a randomised controlled vaccine trial. *Influenza and Other Respiratory Viruses*, **2013**, 7, 330-9	5.6	14
33	Antigenic drift of the pandemic 2009 A(H1N1) influenza virus in A ferret model. *PLoS Pathogens*, **2013**, 9, e1003354	7.6	52
32	Altered temporal response of malaria parasites determines differential sensitivity to artemisinin. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 5157-62	11.5	139
31	Reducing uncertainty in within-host parameter estimates of influenza infection by measuring both infectious and total viral load. *PLoS ONE*, **2013**, 8, e64098	3.7	25
30	Synthetic Population Dynamics: A Model of Household Demography. *Jasss*, **2013**, 16,	4.8	36
29	Drivers and consequences of influenza antiviral resistant-strain emergence in a capacity-constrained pandemic response. *Epidemics*, **2012**, 4, 219-26	5.1	4
28	Household transmission of respiratory viruses - assessment of viral, individual and household characteristics in a population study of healthy Australian adults. *BMC Infectious Diseases*, **2012**, 12, 345	4	14

27	Application of a case-control study design to investigate genotypic signatures of HIV-1 transmission. *Retrovirology*, **2012**, 9, 54	3.6	5
26	Assessing the utility of an anti-malarial pharmacokinetic-pharmacodynamic model for aiding drug clinical development. *Malaria Journal*, **2012**, 11, 303	3.6	33
25	Influence of contact definitions in assessment of the relative importance of social settings in disease transmission risk. *PLoS ONE*, **2012**, 7, e30893	3.7	11
24	Likely effectiveness of pharmaceutical and non-pharmaceutical interventions for mitigating influenza virus transmission in Mongolia. *Bulletin of the World Health Organization*, **2012**, 90, 264-71	8.2	21
23	THE INFLUENCE OF INCREASING LIFE EXPECTANCY ON THE DYNAMICS OF SIRS SYSTEMS WITH IMMUNE BOOSTING. *ANZIAM Journal*, **2012**, 54, 50-63	0.5	14
22	H1N1 influenza and the Australian macroeconomy. *Journal of the Asia Pacific Economy*, **2012**, 17, 22-51	1	16
21	Incorporating population dynamics into household models of infectious disease transmission. *Epidemics*, **2011**, 3, 152-8	5.1	15
20	Diagnosis and antiviral intervention strategies for mitigating an influenza epidemic. *PLoS ONE*, **2011**, 6, e14505	3.7	19
19	Understanding mortality in the 1918-1919 influenza pandemic in England and Wales. *Influenza and Other Respiratory Viruses*, **2011**, 5, 89-98	5.6	11
18	A mathematical framework for estimating pathogen transmission fitness and inoculum size using data from a competitive mixtures animal model. *PLoS Computational Biology*, **2011**, 7, e1002026	5	15
17	Modelling strategic use of the national antiviral stockpile during the CONTAIN and SUSTAIN phases of an Australian pandemic influenza response. *Australian and New Zealand Journal of Public Health*, **2010**, 34, 113-9	2.3	17
16	Assessing the viral fitness of oseltamivir-resistant influenza viruses in ferrets, using a competitive-mixtures model. *Journal of Virology*, **2010**, 84, 9427-38	6.6	56
15	Prior immunity helps to explain wave-like behaviour of pandemic influenza in 1918-9. *BMC Infectious Diseases*, **2010**, 10, 128	4	37
14	Comparison of three methods for ascertainment of contact information relevant to respiratory pathogen transmission in encounter networks. *BMC Infectious Diseases*, **2010**, 10, 166	4	42
13	Influenza: accounting for prior immunity. *Science*, **2009**, 325, 1071; author reply 1072-3	33.3	24
12	Optimal dosing and dynamic distribution of vaccines in an influenza pandemic. *American Journal of Epidemiology*, **2009**, 169, 1517-24	3.8	11
11	Understanding influenza transmission, immunity and pandemic threats. *Influenza and Other Respiratory Viruses*, **2009**, 3, 143-9	5.6	58
10	Understanding Australia's influenza pandemic policy on the strategic use of the antiviral drug stockpile. *Medical Journal of Australia*, **2009**, 191, 136-7	4	4

9	Impact of emerging antiviral drug resistance on influenza containment and spread: influence of subclinical infection and strategic use of a stockpile containing one or two drugs. *PLoS ONE*, **2008**, 3, e2362	3.7	43
8	A biological model for influenza transmission: pandemic planning implications of asymptomatic infection and immunity. *PLoS ONE*, **2007**, 2, e1220	3.7	62
7	Prophylaxis or treatment? Optimal use of an antiviral stockpile during an influenza pandemic. *Mathematical Biosciences*, **2007**, 209, 336-60	3.9	55
6	Pure point spectrum for the time evolution of a periodically rank-N kicked Hamiltonian. *Journal of Mathematical Physics*, **2005**, 46, 032108	1.2	4
5	On the continuous spectral component of the Floquet operator for a periodically kicked quantum system. *Journal of Mathematical Physics*, **2005**, 46, 103503	1.2	2
4	Anatomy of a seasonal influenza epidemic forecast. *Communicable Diseases Intelligence (2018)*,43,	1.9	4
3	Modelling within-host macrophage dynamics in influenza virus infection		1
2	Assessing the risk of spread of COVID-19 to the Asia Pacific region		4
1	Estimation of the force of infection and infectious period of skin sores in remote Australian communities using interval-censored data		1