James M Mccaw

List of Publications by Year
in descending order

114 papers	3,150 citations	172457 29 h-index	214800 47 g-index
130 all docs	130 docs citations	130 times ranked	4423 citing authors

#	Article	IF	Citations
1	Hypnozoite dynamics for Plasmodium vivax malaria: The epidemiological effects of radical cure. Journal of Theoretical Biology, 2022, 537, 111014.	1.7	10
2	Estimation of the probability of epidemic fade-out from multiple outbreak data. Epidemics, 2022, 38, 100539.	3.0	8
3	From Climate Change to Pandemics: Decision Science Can Help Scientists Have Impact. Frontiers in Ecology and Evolution, 2022, 10, .	2.2	6
4	Rapid assessment of the risk of SARS-CoV-2 importation: case study and lessons learned. Epidemics, 2022, 38, 100549.	3.0	5
5	COVID-19 in low-tolerance border quarantine systems: Impact of the Delta variant of SARS-CoV-2. Science Advances, 2022, 8, eabm3624.	10.3	10
6	Modelling within-host macrophage dynamics in influenza virus infection. Journal of Theoretical Biology, 2021, 508, 110492.	1.7	15
7	Antibody Dynamics for Plasmodium vivax Malaria: A Mathematical Model. Bulletin of Mathematical Biology, 2021, 83, 6.	1.9	8
8	Constructing an ethical framework for priority allocation of pandemic vaccines. Vaccine, 2021, 39, 797-804.	3.8	9
9	Modelling the Effect of MUC1 on Influenza Virus Infection Kinetics and Macrophage Dynamics. Viruses, 2021, 13, 850.	3.3	4
10	Development and Validation of an In Silico Decision Tool To Guide Optimization of Intravenous Artesunate Dosing Regimens for Severe Falciparum Malaria Patients. Antimicrobial Agents and Chemotherapy, 2021, 65, .	3.2	1
11	Development of an influenza pandemic decision support tool linking situational analytics to national response policy. Epidemics, 2021, 36, 100478.	3.0	4
12	Infectious disease pandemic planning and response: Incorporating decision analysis. PLoS Medicine, 2020, 17, e1003018.	8.4	67
13	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.	3.2	6
14	Influencing public health policy with data-informed mathematical models of infectious diseases: Recent developments and new challenges. Epidemics, 2020, 32, 100393.	3.0	31
15	Coronavirus Disease Model to Inform Transmission-Reducing Measures and Health System Preparedness, Australia. Emerging Infectious Diseases, 2020, 26, 2844-2853.	4.3	36
16	Key questions for modelling COVID-19 exit strategies. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20201405.	2.6	106
17	An Activation-Clearance Model for Plasmodium vivax Malaria. Bulletin of Mathematical Biology, 2020, 82, 32.	1.9	9
18	Coordinating the realâ€time use of global influenza activity data for better public health planning. Influenza and Other Respiratory Viruses, 2020, 14, 105-110.	3.4	4

#	Article	IF	Citations
19	Early analysis of the Australian COVID-19 epidemic. ELife, 2020, 9, .	6.0	66
20	Title is missing!. , 2020, 16, e1007838.		0
21	Title is missing!. , 2020, 16, e1007838.		0
22	Title is missing!. , 2020, 16, e1007838.		0
23	Title is missing!. , 2020, 16, e1007838.		0
24	Title is missing!. , 2020, 16, e1007838.		0
25	Title is missing!. , 2020, 16, e1007838.		0
26	Sequential infection experiments for quantifying innate and adaptive immunity during influenza infection. PLoS Computational Biology, 2019, 15, e1006568.	3.2	9
27	Accounting for Healthcare-Seeking Behaviours and Testing Practices in Real-Time Influenza Forecasts. Tropical Medicine and Infectious Disease, 2019, 4, 12.	2.3	26
28	A simple influenza model with complicated dynamics. Journal of Mathematical Biology, 2019, 78, 607-624.	1.9	12
29	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.	1.9	20
30	Modeling the dynamics of Plasmodium falciparum gametocytes in humans during malaria infection. ELife, 2019, 8, .	6.0	36
31	Anatomy of a seasonal influenza epidemic forecast. Communicable Diseases Intelligence (2018), 2019, 43, .	0.7	3
32	Clonally diverse CD38+HLA-DR+CD8+ T cells persist during fatal H7N9 disease. Nature Communications, 2018, 9, 824.	12.8	107
33	Evidence for Viral Interference and Cross-reactive Protective Immunity Between Influenza B Virus Lineages. Journal of Infectious Diseases, 2018, 217, 548-559.	4.0	49
34	Epidemic forecasts as a tool for public health: interpretation and (re)calibration. Australian and New Zealand Journal of Public Health, 2018, 42, 69-76.	1.8	22
35	In Silico 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, .	3.2	4
36	Predicting the Outcomes of New Short-Course Regimens for Multidrug-Resistant Tuberculosis Using Intrahost and Pharmacokinetic-Pharmacodynamic Modeling. Antimicrobial Agents and Chemotherapy, 2018, 62, .	3.2	7

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37	Characterization of Influenza B Virus Variants with Reduced Neuraminidase Inhibitor Susceptibility. Antimicrobial Agents and Chemotherapy, 2018, 62, .	3.2	17
38	Investigating the Efficacy of Triple Artemisinin-Based Combination Therapies for Treating Plasmodium falciparum Malaria Patients Using Mathematical Modeling. Antimicrobial Agents and Chemotherapy, 2018, 62, .	3.2	43
39	Infection-acquired versus vaccine-acquired immunity in an SIRWS model. Infectious Disease Modelling, 2018, 3, 118-135.	1.9	8
40	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.	2.1	9
41	The distribution of the time taken for an epidemic to spread between two communities. Mathematical Biosciences, 2018, 303, 139-147.	1.9	5
42	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.	4.0	90
43	Withinâ€host modeling of bloodâ€stage malaria. Immunological Reviews, 2018, 285, 168-193.	6.0	26
44	New Mathematical Models of Antimalarial Drug Action to Improve Drug Dosing Regimens. Mathematics for Industry, 2018, , 7-11.	0.4	0
45	Turnover of Village Chickens Undermines Vaccine Coverage to Control HPAI H5N1. Zoonoses and Public Health, 2017, 64, 53-62.	2.2	1
46	Characterising pandemic severity and transmissibility from data collected during first few hundred studies. Epidemics, 2017, 19, 61-73.	3.0	36
47	Influenza as a trigger for cardiovascular disease: An investigation of serotype, subtype and geographic location. Environmental Research, 2017, 156, 688-696.	7.5	20
48	Model selection for seasonal influenza forecasting. Infectious Disease Modelling, 2017, 2, 56-70.	1.9	15
49	Retrospective forecasting of the 2010â€“2014 Melbourne influenza seasons using multiple surveillance systems. Epidemiology and Infection, 2017, 145, 156-169.	2.1	25
50	A Dynamic Stress Model Explains the Delayed Drug Effect in Artemisinin Treatment of Plasmodium falciparum. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	9
51	A mechanistic model quantifies artemisinin-induced parasite growth retardation in blood-stage Plasmodium falciparum infection. Journal of Theoretical Biology, 2017, 430, 117-127.	1.7	9
52	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.	1.7	24
53	The Mechanisms for Within-Host Influenza Virus Control Affect Model-Based Assessment and Prediction of Antiviral Treatment. Viruses, 2017, 9, 197.	3.3	29
54	On the Role of CD8+ T Cells in Determining Recovery Time from Influenza Virus Infection. Frontiers in Immunology, 2016, 7, 611.	4.8	31

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55	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, 4501-4510.	3.2	49
56	Forecasting influenza outbreak dynamics in Melbourne from Internet search query surveillance data. Influenza and Other Respiratory Viruses, 2016, 10, 314-323.	3.4	40
57	Periodic solutions in an SIRWS model with immune boosting and cross-immunity. Journal of Theoretical Biology, 2016, 410, 55-64.	1.7	7
58	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.	2.9	13
59	High conservation level of CD8⁺ T cell immunogenic regions within an unusual H1N2 human influenza variant. Journal of Medical Virology, 2016, 88, 1725-1732.	5.0	3
60	Heightened self-reactivity associated with selective survival, but not expansion, of naÃ¯ve virus-specific CD8 ⁺ T cells in aged mice. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1333-1338.	7.1	45
61	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, 1172-1172.	3.2	2
62	On the extinction probability in models of within-host infection: the role of latency and immunity. Journal of Mathematical Biology, 2016, 73, 787-813.	1.9	17
63	Model-Informed Risk Assessment and Decision Making for an Emerging Infectious Disease in the Asia-Pacific Region. PLoS Neglected Tropical Diseases, 2016, 10, e0005018.	3.0	9
64	Factors associated with transmission of influenzaâ€like illness in a cohort of households containing multiple children. Influenza and Other Respiratory Viruses, 2015, 9, 247-254.	3.4	9
65	Social encounter profiles of greater Melbourne residents, by location â€“ a telephone survey. BMC Infectious Diseases, 2015, 15, 494.	2.9	15
66	Prior Population Immunity Reduces the Expected Impact of CTL-Inducing Vaccines for Pandemic Influenza Control. PLoS ONE, 2015, 10, e0120138.	2.5	10
67	Pertussis models to inform vaccine policy. Human Vaccines and Immunotherapeutics, 2015, 11, 669-678.	3.3	9
68	Quantifying differences in the epidemic curves from three influenza surveillance systems: a nonlinear regression analysis. Epidemiology and Infection, 2015, 143, 427-439.	2.1	6
69	Quantifying relative within-host replication fitness in influenza virus competition experiments. Journal of Theoretical Biology, 2015, 382, 259-271.	1.7	23
70	Targeting the Cell Stress Response of Plasmodium falciparum to Overcome Artemisinin Resistance. PLoS Biology, 2015, 13, e1002132.	5.6	254
71	A new approach to estimating trends in chlamydia incidence. Sexually Transmitted Infections, 2015, 91, 513-519.	1.9	17
72	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, 1701-1710.	4.0	88

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73	The effects of demographic change on disease transmission and vaccine impact in a household structured population. Epidemics, 2015, 13, 56-64.	3.0	50
74	Defining long-term drivers of pertussis resurgence, and optimal vaccine control strategies. Vaccine, 2015, 33, 5794-5800.	3.8	25
75	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.	3.2	50
76	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, 2458-2469.	3.0	31
77	Pandemic controllability: a concept to guide a proportionate and flexible operational response to future influenza pandemics. Journal of Public Health, 2014, 36, 5-12.	1.8	18
78	Estimating the Fitness Advantage Conferred by Permissive Neuraminidase Mutations in Recent Oseltamivir-Resistant A(H1N1)pdm09 Influenza Viruses. PLoS Pathogens, 2014, 10, e1004065.	4.7	114
79	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.	2.1	8
80	The dynamical consequences of seasonal forcing, immune boosting and demographic change in a model of disease transmission. Journal of Theoretical Biology, 2014, 361, 124-132.	1.7	9
81	The influence of changing host immunity on 1918â€“19 pandemic dynamics. Epidemics, 2014, 8, 18-27.	3.0	11
82	Making the Most of Clinical Data: Reviewing the Role of Pharmacokinetic-Pharmacodynamic Models of Anti-malarial Drugs. AAPS Journal, 2014, 16, 962-974.	4.4	26
83	Population Pharmacokinetics of Intravenous Artesunate: A Pooled Analysis of Individual Data From Patients With Severe Malaria. CPT: Pharmacometrics and Systems Pharmacology, 2014, 3, 1-9.	2.5	18
84	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, 330-339.	3.4	18
85	Antigenic Drift of the Pandemic 2009 A(H1N1) Influenza Virus in a Ferret Model. PLoS Pathogens, 2013, 9, e1003354.	4.7	62
86	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, 5157-5162.	7.1	172
87	Reducing Uncertainty in Within-Host Parameter Estimates of Influenza Infection by Measuring Both Infectious and Total Viral Load. PLoS ONE, 2013, 8, e64098.	2.5	31
88	Synthetic Population Dynamics: A Model of Household Demography. Jasss, 2013, 16, .	1.8	48
89	Likely effectiveness of pharmaceutical and non-pharmaceutical interventions for mitigating influenza virus transmission in Mongolia. Bulletin of the World Health Organization, 2012, 90, 264-271.	3.3	23
90	THE INFLUENCE OF INCREASING LIFE EXPECTANCY ON THE DYNAMICS OF SIRS SYSTEMS WITH IMMUNEÂBOOSTING. ANZIAM Journal, 2012, 54, 50-63.	0.2	20

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91	H1N1 influenza and the Australian macroeconomy. Journal of the Asia Pacific Economy, 2012, 17, 22-51.	1.7	25
92	Drivers and consequences of influenza antiviral resistant-strain emergence in a capacity-constrained pandemic response. Epidemics, 2012, 4, 219-226.	3.0	5
93	Household transmission of respiratory viruses â€“ assessment of viral, individual and household characteristics in a population study of healthy Australian adults. BMC Infectious Diseases, 2012, 12, 345.	2.9	16
94	Application of a caseâ€“control study design to investigate genotypic signatures of HIV-1 transmission. Retrovirology, 2012, 9, 54.	2.0	5
95	Assessing the utility of an anti-malarial pharmacokinetic-pharmacodynamic model for aiding drug clinical development. Malaria Journal, 2012, 11, 303.	2.3	42
96	Influence of Contact Definitions in Assessment of the Relative Importance of Social Settings in Disease Transmission Risk. PLoS ONE, 2012, 7, e30893.	2.5	14
97	Incorporating population dynamics into household models of infectious disease transmission. Epidemics, 2011, 3, 152-158.	3.0	20
98	Diagnosis and Antiviral Intervention Strategies for Mitigating an Influenza Epidemic. PLoS ONE, 2011, 6, e14505.	2.5	19
99	Understanding mortality in the 1918â€“1919 influenza pandemic in England and Wales. Influenza and Other Respiratory Viruses, 2011, 5, 89-98.	3.4	16
100	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.	3.2	18
101	Prior immunity helps to explain wave-like behaviour of pandemic influenza in 1918-9. BMC Infectious Diseases, 2010, 10, 128.	2.9	45
102	Comparison of three methods for ascertainment of contact information relevant to respiratory pathogen transmission in encounter networks. BMC Infectious Diseases, 2010, 10, 166.	2.9	43
103	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, 113-119.	1.8	17
104	Assessing the Viral Fitness of Oseltamivir-Resistant Influenza Viruses in Ferrets, Using a Competitive-Mixtures Model. Journal of Virology, 2010, 84, 9427-9438.	3.4	69
105	Understanding Australia's influenza pandemic policy on the strategic use of the antiviral drug stockpile. Medical Journal of Australia, 2009, 191, 136-137.	1.7	7
106	Influenza: Accounting for Prior Immunity. Science, 2009, 325, 1071-1071.	12.6	29
107	Optimal Dosing and Dynamic Distribution of Vaccines in an Influenza Pandemic. American Journal of Epidemiology, 2009, 169, 1517-1524.	3.4	14
108	Understanding influenza transmission, immunity and pandemic threats. Influenza and Other Respiratory Viruses, 2009, 3, 143-149.	3.4	72

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109	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.	2.5	48
110	Prophylaxis or treatment? Optimal use of an antiviral stockpile during an influenza pandemic. Mathematical Biosciences, 2007, 209, 336-360.	1.9	60
111	A Biological Model for Influenza Transmission: Pandemic Planning Implications of Asymptomatic Infection and Immunity. PLoS ONE, 2007, 2, e1220.	2.5	76
112	Pure point spectrum for the time evolution of a periodically rank-N kicked Hamiltonian. Journal of Mathematical Physics, 2005, 46, 032108.	1.1	4
113	On the continuous spectral component of the Floquet operator for a periodically kicked quantum system. Journal of Mathematical Physics, 2005, 46, 103503.	1.1	2
114	Anatomy of a seasonal influenza epidemic forecast. Communicable Diseases Intelligence (2018), 0, 43, .	0.7	7