Catherine A A Beauchemin

List of Publications by Year
in descending order

44	2,592	218592	289141
papers	citations	26 h-index	40 g-index

47	47	47	2457
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Kinetics of Influenza A Virus Infection in Humans. Journal of Virology, 2006, 80, 7590-7599.	1.5	630
2	A review of mathematical models of influenza A infections within a host or cell culture: lessons learned and challenges ahead. BMC Public Health, 2011, 11, S7.	1.2	191
3	Agent-based modeling of hostâ€“pathogen systems: The successes and challenges. Information Sciences, 2009, 179, 1379-1389.	4.0	174
4	A simple cellular automaton model for influenza A viral infections. Journal of Theoretical Biology, 2005, 232, 223-234.	0.8	154
5	Modeling amantadine treatment of influenza A virus in vitro. Journal of Theoretical Biology, 2008, 254, 439-451.	0.8	114
6	The H275Y Neuraminidase Mutation of the Pandemic A/H1N1 Influenza Virus Lengthens the Eclipse Phase and Reduces Viral Output of Infected Cells, Potentially Compromising Fitness in Ferrets. Journal of Virology, 2012, 86, 10651-10660.	1.5	99
7	Computer immunology. Immunological Reviews, 2007, 216, 176-197.	2.8	96
8	Assessing Mathematical Models of Influenza Infections Using Features of the Immune Response. PLoS ONE, 2013, 8, e57088.	1.1	96
9	Viral factors in influenza pandemic risk assessment. ELife, 2016, 5, .	2.8	82
10	Exploring the effect of biological delays in kinetic models of influenza within a host or cell culture. BMC Public Health, 2011, 11, S10.	1.2	76
11	Characterizing T Cell Movement within Lymph Nodes in the Absence of Antigen. Journal of Immunology, 2007, 178, 5505-5512.	0.4	74
12	Higher Level of Replication Efficiency of 2009 (H1N1) Pandemic Influenza Virus than Those of Seasonal and Avian Strains: Kinetics from Epithelial Cell Culture and Computational Modeling. Journal of Virology, 2011, 85, 1125-1135.	1.5	64
13	Assessing the In Vitro Fitness of an Oseltamivir-Resistant Seasonal A/H1N1 Influenza Strain Using a Mathematical Model. PLoS ONE, 2011, 6, e14767.	1.1	54
14	A method to determine the duration of the eclipse phase for in vitro infection with a highly pathogenic SHIV strain. Scientific Reports, 2015, 5, 10371.	1.6	51
15	Probing the effects of the well-mixed assumption on viral infection dynamics. Journal of Theoretical Biology, 2006, 242, 464-477.	0.8	50
16	Impact of the H275Y and I223V Mutations in the Neuraminidase of the 2009 Pandemic Influenza Virus In Vitro and Evaluating Experimental Reproducibility. PLoS ONE, 2015, 10, e0126115.	1.1	46
17	Neuraminidase inhibitors for treatment of human and avian strain influenza: A comparative modeling study. Journal of Theoretical Biology, 2011, 269, 234-244.	0.8	42
18	A mathematical model describing the localization and spread of influenza A virus infection within the human respiratory tract. PLoS Computational Biology, 2020, 16, e1007705.	1.5	39

#	Article	IF	Citations
19	The I222V Neuraminidase Mutation Has a Compensatory Role in Replication of an Oseltamivir-Resistant Influenza Virus A/H3N2 E119V Mutant. Journal of Clinical Microbiology, 2011, 49, 715-717.	1.8	38
20	Quantification system for the viral dynamics of a highly pathogenic simian/human immunodeficiency virus based on an in vitroexperiment and a mathematical model. Retrovirology, 2012, 9, 18.	0.9	38
21	Progress and trends in mathematical modelling of influenza A virus infections. Current Opinion in Systems Biology, 2018, 12, 30-36.	1.3	37
22	Avian influenza viruses that cause highly virulent infections in humans exhibit distinct replicative properties in contrast to human H1N1 viruses. Scientific Reports, 2016, 6, 24154.	1.6	35
23	Exploring Cell Tropism as a Possible Contributor to Influenza Infection Severity. PLoS ONE, 2010, 5, e13811.	1.1	30
24	Design considerations in buildingin silicoequivalents of common experimental influenza virus assays. Autoimmunity, 2011, 44, 282-293.	1.2	30
25	Duration of SHIV production by infected cells is not exponentially distributed: Implications for estimates of infection parameters and antiviral efficacy. Scientific Reports, 2017, 7, 42765.	1.6	30
26	Information processing mechanisms in microtubules at physiological temperature: Model predictions for experimental tests. BioSystems, 2009, 97, 28-34.	0.9	29
27	Modeling Influenza Viral Dynamics in Tissue. Lecture Notes in Computer Science, 2006, , 23-36.	1.0	26
28	A Drug-Disease Model Describing the Effect of Oseltamivir Neuraminidase Inhibition on Influenza Virus Progression. Antimicrobial Agents and Chemotherapy, 2015, 59, 5388-5395.	1.4	23
29	Modelling the emergence of influenza drug resistance: The roles of surface proteins, the immune response and antiviral mechanisms. PLoS ONE, 2017, 12, e0180582.	1.1	23
30	Uncovering critical properties of the human respiratory syncytial virus by combining in vitro assays and in silico analyses. PLoS ONE, 2019, 14, e0214708.	1.1	18
31	Time to revisit the endpoint dilution assay and to replace the TCID50 as a measure of a virus sampleâ€™s infection concentration. PLoS Computational Biology, 2021, 17, e1009480.	1.5	17
32	(In)validating experimentally derived knowledge about influenza A defective interfering particles. Journal of the Royal Society Interface, 2016, 13, 20160412.	1.5	14
33	The in vivo efficacy of neuraminidase inhibitors cannot be determined from the decay rates of influenza viral titers observed in treated patients. Scientific Reports, 2017, 7, 40210.	1.6	14
34	Exploring virus release as a bottleneck for the spread of influenza A virus infection in vitro and the implications for antiviral therapy with neuraminidase inhibitors. PLoS ONE, 2017, 12, e0183621.	1.1	11
35	A conservation law for virus infection kinetics in vitro. Journal of Theoretical Biology, 2015, 376, 39-47.	0.8	10
36	Quantifying mechanistic traits of influenza viral dynamics using in vitro data. Epidemics, 2020, 33, 100406.	1.5	10

#	Article	IF	Citations
37	Quantification of Ebola virus replication kinetics in vitro. PLoS Computational Biology, 2020, 16, e1008375.	1.5	10
38	Modelling endurance and resumption times for repetitive one-hand pushing. Ergonomics, 2018, 61, 891-901.	1.1	8
39	The Maximum Energy of Shock-accelerated Electrons in a Microturbulent Magnetic Field. Astrophysical Journal, 2021, 906, 33.	1.6	8
40	Agent-Based Models in Infectious Disease and Immunology. , 2015, , 38-43.		0
41	Title is missing!. , 2020, 16, e1007705.		0
42	Title is missing!. , 2020, 16, e1007705.		0
43	Title is missing!. , 2020, 16, e1007705.		0
44	Title is missing!. , 2020, 16, e1007705.		0