

Shingo Iwami

List of Publications by Year in descending order

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Version: 2024-02-01

86
papers

2,928
citations

186265

28
h-index

206112

48
g-index

101
all docs

101
docs citations

101
times ranked

3330
citing authors

#	ARTICLE	IF	CITATIONS
1	SVIR epidemic models with vaccination strategies. <i>Journal of Theoretical Biology</i> , 2008, 253, 1-11.	1.7	205
2	Epidermal growth factor receptor is a host-entry cofactor triggering hepatitis B virus internalization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 8487-8492.	7.1	170
3	Avian-human influenza epidemic model. <i>Mathematical Biosciences</i> , 2007, 207, 1-25.	1.9	149
4	Cell-to-cell infection by HIV contributes over half of virus infection. <i>ELife</i> , 2015, 4, .	6.0	137
5	Sporadic on/off switching of HTLV-1 Tax expression is crucial to maintain the whole population of virus-induced leukemic cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E1269-E1278.	7.1	135
6	Potential anti-COVID-19 agents, cepharanthine and nelfinavir, and their usage for combination treatment. <i>IScience</i> , 2021, 24, 102367.	4.1	126
7	A heart-brain-kidney network controls adaptation to cardiac stress through tissue macrophage activation. <i>Nature Medicine</i> , 2017, 23, 611-622.	30.7	119
8	Lymph nodes harbor viral reservoirs that cause rebound of plasma viremia in SIV-infected macaques upon cessation of combined antiretroviral therapy. <i>Virology</i> , 2012, 423, 107-118.	2.4	107
9	A quantitative model used to compare within-host SARS-CoV-2, MERS-CoV, and SARS-CoV dynamics provides insights into the pathogenesis and treatment of SARS-CoV-2. <i>PLoS Biology</i> , 2021, 19, e3001128.	5.6	99
10	Optimal control strategy for prevention of avian influenza pandemic. <i>Journal of Theoretical Biology</i> , 2009, 260, 220-229.	1.7	93
11	APOBEC3D and APOBEC3F Potently Promote HIV-1 Diversification and Evolution in Humanized Mouse Model. <i>PLoS Pathogens</i> , 2014, 10, e1004453.	4.7	79
12	Vpu Augments the Initial Burst Phase of HIV-1 Propagation and Downregulates BST2 and CD4 in Humanized Mice. <i>Journal of Virology</i> , 2012, 86, 5000-5013.	3.4	65
13	A method to determine the duration of the eclipse phase for in vitro infection with a highly pathogenic SHIV strain. <i>Scientific Reports</i> , 2015, 5, 10371.	3.3	51
14	Quantifying antiviral activity optimizes drug combinations against hepatitis C virus infection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 1922-1927.	7.1	50
15	HIV-1 Vpr Accelerates Viral Replication during Acute Infection by Exploitation of Proliferating CD4+ T Cells In Vivo. <i>PLoS Pathogens</i> , 2013, 9, e1003812.	4.7	49
16	Avian flu pandemic: Can we prevent it?. <i>Journal of Theoretical Biology</i> , 2009, 257, 181-190.	1.7	48
17	Dynamical properties of autoimmune disease models: Tolerance, flare-up, dormancy. <i>Journal of Theoretical Biology</i> , 2007, 246, 646-659.	1.7	46
18	Estimation of the incubation period of COVID-19 using viral load data. <i>Epidemics</i> , 2021, 35, 100454.	3.0	45

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19	Human-Specific Adaptations in Vpu Conferring Anti-tetherin Activity Are Critical for Efficient Early HIV-1 Replication In Vivo. <i>Cell Host and Microbe</i> , 2018, 23, 110-120.e7.	11.0	43
20	HIV-1 competition experiments in humanized mice show that APOBEC3H imposes selective pressure and promotes virus adaptation. <i>PLoS Pathogens</i> , 2017, 13, e1006348.	4.7	41
21	Factors Associated with COVID-19 Vaccine Booster Hesitancy: A Retrospective Cohort Study, Fukushima Vaccination Community Survey. <i>Vaccines</i> , 2022, 10, 515.	4.4	40
22	Quantification system for the viral dynamics of a highly pathogenic simian/human immunodeficiency virus based on an in vitro experiment and a mathematical model. <i>Retrovirology</i> , 2012, 9, 18.	2.0	38
23	The machinery for endocytosis of epidermal growth factor receptor coordinates the transport of incoming hepatitis B virus to the endosomal network. <i>Journal of Biological Chemistry</i> , 2020, 295, 800-807.	3.4	37
24	Identifying viral parameters from in vitro cell cultures. <i>Frontiers in Microbiology</i> , 2012, 3, 319.	3.5	33
25	Quantification of Deaminase Activity-Dependent and -Independent Restriction of HIV-1 Replication Mediated by APOBEC3F and APOBEC3G through Experimental-Mathematical Investigation. <i>Journal of Virology</i> , 2014, 88, 5881-5887.	3.4	32
26	Detection of significant antiviral drug effects on COVID-19 with reasonable sample sizes in randomized controlled trials: A modeling study. <i>PLoS Medicine</i> , 2021, 18, e1003660.	8.4	32
27	HIV Testing by Public Health Centers and Municipalities and New HIV Cases During the COVID-19 Pandemic in Japan. <i>Journal of Acquired Immune Deficiency Syndromes (1999)</i> , 2021, 87, e182-e187.	2.1	31
28	Immune impairment in HIV infection: Existence of risky and immunodeficiency thresholds. <i>Journal of Theoretical Biology</i> , 2009, 260, 490-501.	1.7	30
29	Duration of SHIV production by infected cells is not exponentially distributed: Implications for estimates of infection parameters and antiviral efficacy. <i>Scientific Reports</i> , 2017, 7, 42765.	3.3	30
30	The machinery for endocytosis of epidermal growth factor receptor coordinates the transport of incoming hepatitis B virus to the endosomal network. <i>Journal of Biological Chemistry</i> , 2020, 295, 800-807.	3.4	30
31	Prevention of avian influenza epidemic: What policy should we choose?. <i>Journal of Theoretical Biology</i> , 2008, 252, 732-741.	1.7	29
32	A geographical spread of vaccine-resistance in avian influenza epidemics. <i>Journal of Theoretical Biology</i> , 2009, 259, 219-228.	1.7	29
33	Mathematical modeling of multi-drugs therapy: a challenge for determining the optimal combinations of antiviral drugs. <i>Theoretical Biology and Medical Modelling</i> , 2014, 11, 41.	2.1	27
34	Identification of novel avian and mammalian deltaviruses provides new insights into deltavirus evolution. <i>Virus Evolution</i> , 2021, 7, veab003.	4.9	27
35	Direct Evidence of Abortive Lytic Infection-Mediated Establishment of Epstein-Barr Virus Latency During B-Cell Infection. <i>Frontiers in Microbiology</i> , 2020, 11, 575255.	3.5	27
36	Modelling Ebola virus dynamics: Implications for therapy. <i>Antiviral Research</i> , 2016, 135, 62-73.	4.1	26

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37	Mathematical Analysis of a Transformed ODE from a PDE Multiscale Model of Hepatitis C Virus Infection. <i>Bulletin of Mathematical Biology</i> , 2019, 81, 1427-1441.	1.9	25
38	Mefloquine, a Potent Anti-severe Acute Respiratory Syndrome-Related Coronavirus 2 (SARS-CoV-2) Drug as an Entry Inhibitor in vitro. <i>Frontiers in Microbiology</i> , 2021, 12, 651403.	3.5	25
39	Immune impairment thresholds in HIV infection. <i>Immunology Letters</i> , 2009, 123, 149-154.	2.5	24
40	Dynamics of HIV infection in lymphoid tissue network. <i>Journal of Mathematical Biology</i> , 2016, 72, 909-938.	1.9	24
41	Paradox of Vaccination: Is Vaccination Really Effective against Avian Flu Epidemics?. <i>PLoS ONE</i> , 2009, 4, e4915.	2.5	22
42	Different efficacies of neutralizing antibodies and antiviral drugs on SARS-CoV-2 Omicron subvariants, BA.1 and BA.2. <i>Antiviral Research</i> , 2022, 205, 105372.	4.1	22
43	A PDE multiscale model of hepatitis C virus infection can be transformed to a system of ODEs. <i>Journal of Theoretical Biology</i> , 2018, 448, 80-85.	1.7	21
44	Quantifying the effect of Vpu on the promotion of HIV-1 replication in the humanized mouse model. <i>Retrovirology</i> , 2016, 13, 23.	2.0	20
45	A highly pathogenic simian/human immunodeficiency virus effectively produces infectious virions compared with a less pathogenic virus in cell culture. <i>Theoretical Biology and Medical Modelling</i> , 2017, 14, 9.	2.1	17
46	Revisiting the guidelines for ending isolation for COVID-19 patients. <i>ELife</i> , 2021, 10, .	6.0	17
47	A mathematical design of vector vaccine against autoimmune disease. <i>Journal of Theoretical Biology</i> , 2009, 256, 382-392.	1.7	16
48	Quantification of the Dynamics of Enterovirus 71 Infection by Experimental-Mathematical Investigation. <i>Journal of Virology</i> , 2013, 87, 701-705.	3.4	15
49	Pandemic HIV-1 Vpu overcomes intrinsic herd immunity mediated by tetherin. <i>Scientific Reports</i> , 2015, 5, 12256.	3.3	14
50	(In)validating experimentally derived knowledge about influenza A defective interfering particles. <i>Journal of the Royal Society Interface</i> , 2016, 13, 20160412.	3.4	14
51	Incomplete antiviral treatment may induce longer durations of viral shedding during SARS-CoV-2 infection. <i>Life Science Alliance</i> , 2021, 4, e202101049.	2.8	14
52	Improving the estimation of the death rate of infected cells from time course data during the acute phase of virus infections: application to acute HIV-1 infection in a humanized mouse model. <i>Theoretical Biology and Medical Modelling</i> , 2014, 11, 22.	2.1	13
53	Number of infection events per cell during HIV-1 cell-free infection. <i>Scientific Reports</i> , 2017, 7, 6559.	3.3	13
54	Quantification of viral infection dynamics in animal experiments. <i>Frontiers in Microbiology</i> , 2013, 4, 264.	3.5	11

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55	Malaria incidences in South Africa linked to a climate mode in southwestern Indian Ocean. <i>Environmental Development</i> , 2018, 27, 47-57.	4.1	11
56	Viral diversity limits immune diversity in asymptomatic phase of HIV infection. <i>Theoretical Population Biology</i> , 2008, 73, 332-341.	1.1	10
57	Dynamical Adaptation of Parental Care. <i>Bulletin of Mathematical Biology</i> , 2009, 71, 931-951.	1.9	10
58	Quantifying the Antiviral Effect of IFN on HIV-1 Replication in Cell Culture. <i>Scientific Reports</i> , 2015, 5, 11761.	3.3	10
59	A conservation law for virus infection kinetics in vitro. <i>Journal of Theoretical Biology</i> , 2015, 376, 39-47.	1.7	10
60	Frequency dependence and viral diversity imply chaos in an HIV model. <i>Physica D: Nonlinear Phenomena</i> , 2006, 223, 222-228.	2.8	9
61	A Race between Tumor Immunoescape and Genome Maintenance Selects for Optimum Levels of (epi)genetic Instability. <i>PLoS Computational Biology</i> , 2012, 8, e1002370.	3.2	9
62	Reply to Padmanabhan and Dixit: Hepatitis C virus entry inhibitors for optimally boosting direct-acting antiviral-based treatments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E4527-E4529.	7.1	9
63	Should a viral genome stay in the host cell or leave? A quantitative dynamics study of how hepatitis C virus deals with this dilemma. <i>PLoS Biology</i> , 2020, 18, e3000562.	5.6	9
64	A widely distributed HIV-1 provirus elimination assay to evaluate latency-reversing agents in vitro. <i>Cell Reports Methods</i> , 2021, 1, 100122.	2.9	9
65	Modeling HIV multiple infection. <i>Journal of Theoretical Biology</i> , 2021, 509, 110502.	1.7	7
66	Efficacy and safety of nelfinavir in asymptomatic and mild COVID-19 patients: a structured summary of a study protocol for a multicenter, randomized controlled trial. <i>Trials</i> , 2021, 22, 309.	1.6	7
67	Time variation in the probability of failing to detect a case of polymerase chain reaction testing for SARS-CoV-2 as estimated from a viral dynamics model. <i>Journal of the Royal Society Interface</i> , 2021, 18, 20200947.	3.4	7
68	Global stability of a generalized epidemic model. <i>Journal of Mathematical Analysis and Applications</i> , 2010, 362, 286-300.	1.0	5
69	Dynamics of HIV-1 coinfection in different susceptible target cell populations during cell-free infection. <i>Journal of Theoretical Biology</i> , 2018, 455, 39-46.	1.7	5
70	Escaping stochastic extinction of mutant virus: Temporal pattern of emergence of drug resistance within a host. <i>Journal of Theoretical Biology</i> , 2022, 537, 111029.	1.7	4
71	Quantitative Immunology by Data Analysis Using Mathematical Models. , 2019, , 984-992.		3
72	Modeling Borna Disease Virus <i>In Vitro</i> Spread Reveals the Mode of Antiviral Effect Conferred by an Endogenous Bornavirus-Like Element. <i>Journal of Virology</i> , 2020, 94, .	3.4	3

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73	Effect of eclipse phase on quantifying viral dynamics of acute HIV-1 infection in humanized mouse model. <i>Nonlinear Theory and Its Applications IEICE</i> , 2015, 6, 47-53.	0.6	2
74	Quantifying antiviral effects against simian/human immunodeficiency virus induced by host immune response. <i>Journal of Theoretical Biology</i> , 2021, 509, 110493.	1.7	2
75	Evaluating the cost-effectiveness of a pre-exposure prophylaxis program for HIV prevention for men who have sex with men in Japan. <i>Scientific Reports</i> , 2022, 12, 3088.	3.3	2
76	Revealing uninfected and infected target cell dynamics from peripheral blood data in highly and less pathogenic simian/human immunodeficiency virus infected Rhesus macaque. <i>Journal of Theoretical Biology</i> , 2019, 479, 29-36.	1.7	1
77	Required concentration index quantifies effective drug combinations against hepatitis C virus infection. <i>Theoretical Biology and Medical Modelling</i> , 2021, 18, 4.	2.1	1
78	Antithetic effect of interferon- λ on cell-free and cell-to-cell HIV-1 infection. <i>PLoS Computational Biology</i> , 2022, 18, e1010053.	3.2	1
79	Exploring the conserved quantity of viral infection model with periodical cell removal. <i>Japan Journal of Industrial and Applied Mathematics</i> , 2015, 32, 749-757.	0.9	0
80	Impact of asymptomatic infections on the early spread of malaria. <i>Japan Journal of Industrial and Applied Mathematics</i> , 2016, 33, 671-681.	0.9	0
81	Quantifying the antiviral effect of APOBEC3 on HIV-1 infection in humanized mouse model. <i>Journal of Theoretical Biology</i> , 2020, 498, 110295.	1.7	0
82	Quantifying viral dynamics of highly and less pathogenic simian/human immunodeficiency viruses from in vitro experimental data. <i>IEICE Proceeding Series</i> , 2014, 1, 37-40.	0.0	0
83	Modeling the efficiency of filovirus entry into cells in vitro: Effects of SNP mutations in the receptor molecule. <i>PLoS Computational Biology</i> , 2020, 16, e1007612.	3.2	0
84	Detection of significant antiviral drug effects on COVID-19 using viral load and PCR-positive rate in randomized controlled trials. <i>Translational and Regulatory Sciences</i> , 2021, 3, 85-88.	0.2	0
85	Optimal Feedback Control of Cancer Chemotherapy Using Hamiltonian-Jacobi-Bellman Equation. <i>Complexity</i> , 2022, 2022, 1-11.	1.6	0
86	Maternal embryonic leucine zipper kinase (MELK) optimally regulates the HIV-1 uncoating process. <i>Journal of Theoretical Biology</i> , 2022, , 111152.	1.7	0