Alan S Perelson

List of Publications by Year
in descending order

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501 papers	56,821 citations	1368 108 h-index	1627 215 g-index
522 all docs	522 docs citations	522 times ranked	25413 citing authors

#	Article	IF	Citations
1	Rapid turnover of plasma virions and CD4 lymphocytes in HIV-1 infection. Nature, 1995, 373, 123-126.	13.7	4,277
2	HIV-1 Dynamics in Vivo: Virion Clearance Rate, Infected Cell Life-Span, and Viral Generation Time. Science, 1996, 271, 1582-1586.	6.0	3,161
3	Hepatitis C Viral Dynamics in Vivo and the Antiviral Efficacy of Interferon- Therapy. , 1998, 282, 103-107.		1,875
4	Decay characteristics of HIV-1-infected compartments during combination therapy. Nature, 1997, 387, 188-191.	13.7	1,722
5	Identification and characterization of transmitted and early founder virus envelopes in primary HIV-1 infection. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7552-7557.	3.3	1,708
6	Dramatic Rise in Plasma Viremia after CD8+ T Cell Depletion in Simian Immunodeficiency Virusâ€“infected Macaques. Journal of Experimental Medicine, 1999, 189, 991-998.	4.2	1,311
7	Mathematical Analysis of HIV-1 Dynamics in Vivo. SIAM Review, 1999, 41, 3-44.	4.2	1,269
8	The immune system, adaptation, and machine learning. Physica D: Nonlinear Phenomena, 1986, 22, 187-204.	1.3	948
9	Modelling viral and immune system dynamics. Nature Reviews Immunology, 2002, 2, 28-36.	10.6	832
10	Quantifying Residual HIV-1 Replication in Patients Receiving Combination Antiretroviral Therapy. New England Journal of Medicine, 1999, 340, 1605-1613.	13.9	782
11	Dynamics of HIV infection of CD4+ T cells. Mathematical Biosciences, 1993, 114, 81-125.	0.9	776
12	Genetic identity, biological phenotype, and evolutionary pathways of transmitted/founder viruses in acute and early HIV-1 infection. Journal of Experimental Medicine, 2009, 206, 1273-1289.	4.2	684
13	Kinetics of Influenza A Virus Infection in Humans. Journal of Virology, 2006, 80, 7590-7599.	1.5	630
14	Theoretical studies of clonal selection: Minimal antibody repertoire size and reliability of self-non-self discrimination. Journal of Theoretical Biology, 1979, 81, 645-670.	0.8	583
15	Quantitative Image Analysis of HIV-1 Infection in Lymphoid Tissue. Science, 1996, 274, 985-989.	6.0	583
16	Persistence of HIV-1 Transcription in Peripheral-Blood Mononuclear Cells in Patients Receiving Potent Antiretroviral Therapy. New England Journal of Medicine, 1999, 340, 1614-1622.	13.9	579
17	Persistent HIV-1 replication is associated with lower antiretroviral drug concentrations in lymphatic tissues. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2307-2312.	3.3	579
18	Nonlinear dynamics of immunogenic tumors: Parameter estimation and global bifurcation analysis. Bulletin of Mathematical Biology, 1994, 56, 295-321.	0.9	578

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19	The first T cell response to transmitted/founder virus contributes to the control of acute viremia in HIV-1 infection. Journal of Experimental Medicine, 2009, 206, 1253-1272.	4.2	562
20	Initial B-Cell Responses to Transmitted Human Immunodeficiency Virus Type 1: Virion-Binding Immunoglobulin M (IgM) and IgG Antibodies Followed by Plasma Anti-gp41 Antibodies with Ineffective Control of Initial Viremia. Journal of Virology, 2008, 82, 12449-12463.	1.5	548
21	Immunology for physicists. Reviews of Modern Physics, 1997, 69, 1219-1268.	16.4	490
22	Rapid production and clearance of HIV-1 and hepatitis C virus assessed by large volume plasma apheresis. Lancet, The, 1999, 354, 1782-1785.	6.3	458
23	The decay of the latent reservoir of replication-competent HIV-1 is inversely correlated with the extent of residual viral replication during prolonged anti-retroviral therapy. Nature Medicine, 2000, 6, 82-85.	15.2	435
24	Modeling Plasma Virus Concentration during Primary HIV Infection. Journal of Theoretical Biology, 2000, 203, 285-301.	0.8	416
25	On Identifiability of Nonlinear ODE Models and Applications in Viral Dynamics. SIAM Review, 2011, 53, 3-39.	4.2	412
26	Mathematical analysis of delay differential equation models of HIV-1 infection. Mathematical Biosciences, 2002, 179, 73-94.	0.9	398
27	A Novel Antiviral Intervention Results in More Accurate Assessment of Human Immunodeficiency Virus Type 1 Replication Dynamics and T-Cell Decay In Vivo. Journal of Virology, 2003, 77, 5037-5038.	1.5	356
28	Mathematical and Computational Challenges in Population Biology and Ecosystems Science. Science, 1997, 275, 334-343.	6.0	351
29	Variable efficacy of repeated annual influenza vaccination. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 14001-14006.	3.3	347
30	Modelling how ribavirin improves interferon response rates in hepatitis C virus infection. Nature, 2004, 432, 922-924.	13.7	344
31	Rapid Turnover of T Lymphocytes in SIV-Infected Rhesus Macaques. Science, 1998, 279, 1223-1227.	6.0	343
32	Network thermodynamics: dynamic modelling of biophysical systems. Quarterly Reviews of Biophysics, 1973, 6, 1-134.	2.4	336
33	Increased Turnover of T Lymphocytes in HIV-1 Infection and Its Reduction by Antiretroviral Therapy. Journal of Experimental Medicine, 2001, 194, 1277-1288.	4.2	329
34	Rapid Emergence of Protease Inhibitor Resistance in Hepatitis C Virus. Science Translational Medicine, 2010, 2, 30ra32.	5.8	327
35	A model of HIV-1 pathogenesis that includes an intracellular delay. Mathematical Biosciences, 2000, 163, 201-215.	0.9	326
36	Immune Network Theory. Immunological Reviews, 1989, 110, 5-36.	2.8	317

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37	Turnover of CD4+ and CD8+ T Lymphocytes in HIV-1 Infection as Measured by Ki-67 Antigen. Journal of Experimental Medicine, 1998, 187, 1295-1303.	4.2	310
38	HIV-1 Infection and Low Steady State Viral Loads. Bulletin of Mathematical Biology, 2002, 64, 29-64.	0.9	307
39	Modeling shows that the NS5A inhibitor daclatasvir has two modes of action and yields a shorter estimate of the hepatitis C virus half-life. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3991-3996.	3.3	298
40	Target Cell Limited and Immune Control Models of HIV Infection: A Comparison. Journal of Theoretical Biology, 1998, 190, 201-214.	0.8	296
41	Low-dose rectal inoculation of rhesus macaques by SIVsmE660 or SIVmac251 recapitulates human mucosal infection by HIV-1. Journal of Experimental Medicine, 2009, 206, 1117-1134.	4.2	295
42	Zika viral dynamics and shedding in rhesus and cynomolgus macaques. Nature Medicine, 2016, 22, 1448-1455.	15.2	270
43	High Multiplicity Infection by HIV-1 in Men Who Have Sex with Men. PLoS Pathogens, 2010, 6, e1000890.	2.1	263
44	Transmission of Single HIV-1 Genomes and Dynamics of Early Immune Escape Revealed by Ultra-Deep Sequencing. PLoS ONE, 2010, 5, e12303.	1.1	259
45	Cyclic re-entry of germinal center B cells and the efficiency of affinity maturation. Trends in Immunology, 1993, 14, 412-415.	7.5	258
46	Acute Loss of Intestinal CD4+ T Cells Is Not Predictive of Simian Immunodeficiency Virus Virulence. Journal of Immunology, 2007, 179, 3035-3046.	0.4	253
47	Why are there different dynamics in the selection of drug resistance in HIV and hepatitis B and C viruses?. Journal of Antimicrobial Chemotherapy, 2008, 62, 1-4.	1.3	249
48	Influence of delayed viral production on viral dynamics in HIV-1 infected patients. Mathematical Biosciences, 1998, 152, 143-163.	0.9	243
49	Drug concentration heterogeneity facilitates the evolution of drug resistance. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 11514-11519.	3.3	240
50	Different Dynamics of CD4+ and CD8+ T Cell Responses During and After Acute Lymphocytic Choriomeningitis Virus Infection. Journal of Immunology, 2003, 171, 3928-3935.	0.4	231
51	Modeling Within-Host Dynamics of Influenza Virus Infection Including Immune Responses. PLoS Computational Biology, 2012, 8, e1002588.	1.5	223
52	Network Thermodynamics. Nature, 1971, 234, 393-399.	13.7	217
53	Modeling the within-host dynamics of HIV infection. BMC Biology, 2013, 11, 96.	1.7	214
54	Using Genetic Algorithms to Explore Pattern Recognition in the Immune System. Evolutionary Computation, 1993, 1, 191-211.	2.3	209

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55	Quantifying T lymphocyte turnover. Journal of Theoretical Biology, 2013, 327, 45-87.	0.8	207
56	Estimation of the Initial Viral Growth Rate and Basic Reproductive Number during Acute HIV-1 Infection. Journal of Virology, 2010, 84, 6096-6102.	1.5	203
57	Immediate antiviral therapy appears to restrict resting CD4 ⁺ cell HIV-1 infection without accelerating the decay of latent infection. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9523-9528.	3.3	202
58	Analysis of hepatitis B viral load decline under potent therapy: Complex decay profiles observed. Hepatology, 2001, 34, 1012-1020.	3.6	201
59	Modeling HIV persistence, the latent reservoir, and viral blips. Journal of Theoretical Biology, 2009, 260, 308-331.	0.8	196
60	Polyspecificity of T cell and B cell receptor recognition. Seminars in Immunology, 2007, 19, 216-224.	2.7	194
61	Modeling Latently Infected Cell Activation: Viral and Latent Reservoir Persistence, and Viral Blips in HIV-infected Patients on Potent Therapy. PLoS Computational Biology, 2009, 5, e1000533.	1.5	194
62	Zika Virus Persistence in the Central Nervous System and Lymph Nodes of Rhesus Monkeys. Cell, 2017, 169, 610-620.e14.	13.5	191
63	Evolution of Envelope Sequences of Human Immunodeficiency Virus Type 1 in Cellular Reservoirs in the Setting of Potent Antiviral Therapy. Journal of Virology, 1999, 73, 9404-9412.	1.5	187
64	Quantifying the Early Immune Response and Adaptive Immune Response Kinetics in Mice Infected with Influenza A Virus. Journal of Virology, 2010, 84, 6687-6698.	1.5	185
65	Kinetics of Coinfection with Influenza A Virus and Streptococcus pneumoniae. PLoS Pathogens, 2013, 9, e1003238.	2.1	184
66	Searching for Diverse, Cooperative Populations with Genetic Algorithms. Evolutionary Computation, 1993, 1, 127-149.	2.3	182
67	Kinetics of Acute Hepatitis B Virus Infection in Humans. Journal of Experimental Medicine, 2001, 193, 847-854.	4.2	178
68	Nonlinear partial differential equations and applications: In vivo dynamics of T cell activation, proliferation, and death in HIV-1 infection: Why are CD4+ but not CD8+ T cells depleted?. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 15572-15577.	3.3	177
69	The complexity of complexes in signal transduction. Biotechnology and Bioengineering, 2003, 84, 783-794.	1.7	176
70	Recruitment Times, Proliferation, and Apoptosis Rates during the CD8 + T-Cell Response to Lymphocytic Choriomeningitis Virus. Journal of Virology, 2001, 75, 10663-10669.	1.5	175
71	Persistence of Infectious HIV on Follicular Dendritic Cells. Journal of Immunology, 2001, 166, 690-696.	0.4	175
72	Viral dynamics and response differences in HCV-infected African American and white patients treated with IFN and ribavirin. Hepatology, 2003, 37, 1343-1350.	3.6	175

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73	Agent-based modeling of hostâ€“pathogen systems: The successes and challenges. Information Sciences, 2009, 179, 1379-1389.	4.0	174
74	The Physics of Cell Motility. Journal of Cell Science, 1987, 1987, 35-54.	1.2	172
75	Timing of Antiviral Treatment Initiation is Critical to Reduce SARSâ€CoVâ€2 Viral Load. CPT: Pharmacometrics and Systems Pharmacology, 2020, 9, 509-514.	1.3	170
76	Modeling the mechanisms of acute hepatitis B virus infection. Journal of Theoretical Biology, 2007, 247, 23-35.	0.8	166
77	Post-treatment control of HIV infection. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5467-5472.	3.3	166
78	Vertical T cell immunodominance and epitope entropy determine HIV-1 escape. Journal of Clinical Investigation, 2013, 123, 380-93.	3.9	165
79	Complex patterns of viral load decay under antiretroviral therapy: influence of pharmacokinetics and intracellular delay. Journal of Theoretical Biology, 2004, 226, 95-109.	0.8	163
80	Simulation and Prediction of the Adaptive Immune Response to Influenza A Virus Infection. Journal of Virology, 2009, 83, 7151-7165.	1.5	163
81	Modeling sequence evolution in acute HIV-1 infection. Journal of Theoretical Biology, 2009, 261, 341-360.	0.8	162
82	Early Low-Titer Neutralizing Antibodies Impede HIV-1 Replication and Select for Virus Escape. PLoS Pathogens, 2012, 8, e1002721.	2.1	159
83	Modeling hepatitis C virus dynamics: Liver regeneration and critical drug efficacy. Journal of Theoretical Biology, 2007, 247, 371-381.	0.8	156
84	Emergence of HIV-1 Drug Resistance During Antiretroviral Treatment. Bulletin of Mathematical Biology, 2007, 69, 2027-2060.	0.9	153
85	Receptor clustering on a cell surface. I. theory of receptor cross-linking by ligands bearing two chemically identical functional groups. Mathematical Biosciences, 1980, 48, 71-110.	0.9	147
86	Effects of in Vivo Cd8+ T Cell Depletion on Virus Replication in Rhesus Macaques Immunized with a Live, Attenuated Simian Immunodeficiency Virus Vaccine. Journal of Experimental Medicine, 2000, 191, 1921-1932.	4.2	147
87	CD8+ Lymphocytes Control Viral Replication in SIVmac239-Infected Rhesus Macaques without Decreasing the Lifespan of Productively Infected Cells. PLoS Pathogens, 2010, 6, e1000747.	2.1	146
88	Towards a general function describing t cell proliferation. Journal of Theoretical Biology, 1995, 175, 567-576.	0.8	145
89	Somatic Hypermutation in B Cells: An Optimal Control Treatment. Journal of Theoretical Biology, 1993, 164, 37-64.	0.8	141
90	Fitness Costs and Diversity of the Cytotoxic T Lymphocyte (CTL) Response Determine the Rate of CTL Escape during Acute and Chronic Phases of HIV Infection. Journal of Virology, 2011, 85, 10518-10528.	1.5	141

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91	Quantifying the Diversification of Hepatitis C Virus (HCV) during Primary Infection: Estimates of the In Vivo Mutation Rate. PLoS Pathogens, 2012, 8, e1002881.	2.1	139
92	New kinetic models for the hepatitis C virus. Hepatology, 2005, 42, 749-754.	3.6	137
93	Influenza A virus infection kinetics: quantitative data and models. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2011, 3, 429-445.	6.6	136
94	Protein evolution on rugged landscapes.. Proceedings of the National Academy of Sciences of the United States of America, 1989, 86, 6191-6195.	3.3	132
95	Determination of virus burst size in vivo using a single-cycle SIV in rhesus macaques. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19079-19084.	3.3	132
96	Acute hepatitis A virus infection is associated with a limited type I interferon response and persistence of intrahepatic viral RNA. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11223-11228.	3.3	130
97	Discontinuation of Antiretroviral Therapy Commenced Early during the Course of Human Immunodeficiency Virus Type 1 Infection, with or without Adjunctive Vaccination. Journal of Infectious Diseases, 2002, 186, 634-643.	1.9	129
98	Size and connectivity as emergent properties of a developing immune network. Journal of Theoretical Biology, 1991, 149, 381-424.	0.8	128
99	Predicting the size of the T-cell receptor and antibody combining region from consideration of efficient self-nonself discrimination.. Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 1691-1695.	3.3	127
100	Steric Effects on Multivalent Ligand-Receptor Binding: Exclusion of Ligand Sites by Bound Cell Surface Receptors. Biophysical Journal, 1999, 76, 3031-3043.	0.2	124
101	Mathematical Analysis of Ageâ€Structured HIVâ€1 Dynamics with Combination Antiretroviral Therapy. SIAM Journal on Applied Mathematics, 2007, 67, 731-756.	0.8	120
102	An Age-Structured Model of HIV Infection that Allows for Variations in the Production Rate of Viral Particles and the Death Rate of Productively Infected Cells. Mathematical Biosciences and Engineering, 2004, 1, 267-288.	1.0	120
103	Dynamics of hepatitis B virus infection. Microbes and Infection, 2002, 4, 829-835.	1.0	119
104	Parameter Identifiability and Estimation of HIV/AIDS Dynamic Models. Bulletin of Mathematical Biology, 2008, 70, 785-799.	0.9	118
105	T Cell Repertoires and Competitive Exclusion. Journal of Theoretical Biology, 1994, 169, 375-390.	0.8	116
106	Turnover Rates of B Cells, T Cells, and NK Cells in Simian Immunodeficiency Virus-Infected and Uninfected Rhesus Macaques. Journal of Immunology, 2003, 170, 2479-2487.	0.4	115
107	Triphasic decline of hepatitis C virus RNA during antiviral therapy. Hepatology, 2007, 46, 16-21.	3.6	115
108	Modeling HIV Infection of CD4+ T-cell Subpopulations. Journal of Theoretical Biology, 1994, 170, 367-391.	0.8	114

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109	Modeling amantadine treatment of influenza A virus in vitro. Journal of Theoretical Biology, 2008, 254, 439-451.	0.8	114
110	Stochastic Theory of Early Viral Infection: Continuous versus Burst Production of Virions. PLoS Computational Biology, 2011, 7, e1001058.	1.5	114
111	Effects of Aging on Influenza Virus Infection Dynamics. Journal of Virology, 2014, 88, 4123-4131.	1.5	114
112	Mathematical modeling of primary hepatitis C infection: Noncytolytic clearance and early blockage of virion production. Gastroenterology, 2005, 128, 1056-1066.	0.6	109
113	Mathematical Analysis of Antiretroviral Therapy Aimed at HIV-1 Eradication or Maintenance of Low Viral Loads. Journal of Theoretical Biology, 1998, 192, 81-98.	0.8	108
114	In vivo kinetics of SARS-CoV-2 infection and its relationship with a personâ€™s infectiousness. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	108
115	Modeling within-host HIV-1 dynamics and the evolution of drug resistance: Trade-offs between viral enzyme function and drug susceptibility. Journal of Theoretical Biology, 2007, 247, 804-818.	0.8	107
116	Kinetics of Virus-Specific CD8 + T Cells and the Control of Human Immunodeficiency Virus Infection. Journal of Virology, 2004, 78, 10096-10103.	1.5	105
117	Intensification of Antiretroviral Therapy Accelerates the Decay of the HIV-1 Latent Reservoir and Decreases, But Does Not Eliminate, Ongoing Virus Replication. Journal of Acquired Immune Deficiency Syndromes (1999), 2004, 35, 33-37.	0.9	103
118	The role of cells refractory to productive infection in acute hepatitis B viral dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 5050-5055.	3.3	101
119	Simian Immunodeficiency Virus SIVagm Dynamics in African Green Monkeys. Journal of Virology, 2008, 82, 3713-3724.	1.5	101
120	Asymmetric division of activated latently infected cells may explain the decay kinetics of the HIV-1 latent reservoir and intermittent viral blips. Mathematical Biosciences, 2009, 217, 77-87.	0.9	101
121	Hepatitis C Virus (HCV) and Human Immunodeficiency Virus (HIV) Dynamics during HCV Treatment in HCV/HIV Coinfection. Journal of Infectious Diseases, 2003, 188, 1498-1507.	1.9	99
122	Transient Viremia, Plasma Viral Load, and Reservoir Replenishment in HIV-Infected Patients on Antiretroviral Therapy. Journal of Acquired Immune Deficiency Syndromes (1999), 2007, 45, 483-493.	0.9	99
123	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. PLoS Biology, 2021, 19, e3001128.	2.6	99
124	Pattern formation in one- and two-dimensional shape-space models of the immune system. Journal of Theoretical Biology, 1992, 155, 295-333.	0.8	96
125	Quantification of Cell Turnover Kinetics Using 5-Bromo-2â€²-deoxyuridine1. Journal of Immunology, 2000, 164, 5049-5054.	0.4	95
126	Mathematical Modeling of Subgenomic Hepatitis C Virus Replication in Huh-7 Cells. Journal of Virology, 2007, 81, 750-760.	1.5	95

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127	HIV dynamics with multiple infections of target cells. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8198-8203.	3.3	94
128	Modeling the Interaction of the Immune System with HIV. Lecture Notes in Biomathematics, 1989, , 350-370.	0.3	92
129	A stochastic model of cytotoxic T cell responses. Journal of Theoretical Biology, 2004, 228, 227-240.	0.8	91
130	Chemical reaction dynamics. Archive for Rational Mechanics and Analysis, 1974, 55, 230-274.	1.1	90
131	Secondâ€phase hepatitis C virus RNA decline during telaprevirâ€based therapy increases with drug effectiveness: Implications for treatment duration. Hepatology, 2011, 53, 1801-1808.	3.6	90
132	Optimizing within-host viral fitness: infected cell lifespan and virion production rate. Journal of Theoretical Biology, 2004, 229, 281-288.	0.8	89
133	Estimating Lymphocyte Division and Death Rates from CFSE Data. Bulletin of Mathematical Biology, 2006, 68, 1011-1031.	0.9	89
134	Zika plasma viral dynamics in nonhuman primates provides insights into early infection and antiviral strategies. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8847-8852.	3.3	89
135	Localized memories in idiotypic networks. Journal of Theoretical Biology, 1990, 146, 483-499.	0.8	86
136	Modeling complex decay profiles of hepatitis B virus during antiviral therapy. Hepatology, 2009, 49, 32-38.	3.6	86
137	Determining the Relative Efficacy of Highly Active Antiretroviral Therapy. Journal of Infectious Diseases, 2003, 187, 896-900.	1.9	85
138	Rapid Clearance of Simian Immunodeficiency Virus Particles from Plasma of Rhesus Macaques. Journal of Virology, 1999, 73, 855-860.	1.5	84
139	Estimating time since infection in early homogeneous HIV-1 samples using a poisson model. BMC Bioinformatics, 2010, 11, 532.	1.2	83
140	Analysis of Hepatitis C Virus Decline during Treatment with the Protease Inhibitor Danoprevir Using a Multiscale Model. PLoS Computational Biology, 2013, 9, e1002959.	1.5	83
141	Viral kinetic modeling: state of the art. Journal of Pharmacokinetics and Pharmacodynamics, 2014, 41, 431-443.	0.8	82
142	Improved estimates for H1V-1 clearance rate and intracellular delay. Aids, 1999, 13, 1415.	1.0	82
143	Pharmacodynamics of PEG-IFN Î± differentiate HIV/HCV coinfected sustained virological responders from nonresponders. Hepatology, 2006, 43, 943-953.	3.6	81
144	Viral and Latent Reservoir Persistence in HIV-1â€"Infected Patients on Therapy. PLoS Computational Biology, 2006, 2, e135.	1.5	81

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145	Efficacy and safety of 3-week response-guided triple direct-acting antiviral therapy for chronic hepatitis C infection: a phase 2, open-label, proof-of-concept study. The Lancet Gastroenterology and Hepatology, 2016, 1, 97-104.	3.7	80
146	Rate of HIV-1 decline following antiretroviral therapy is related to viral load at baseline and drug regimen. Aids, 1998, 12, 1483-1490.	1.0	79
147	Multiplicity of Human Immunodeficiency Virus Infections in Lymphoid Tissue. Journal of Virology, 2004, 78, 8942-8945.	1.5	79
148	Complete genetic linkage can subvert natural selection. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 6266-6271.	3.3	79
149	Dominance of the CD4+ T helper cell response during acute resolving hepatitis A virus infection. Journal of Experimental Medicine, 2012, 209, 1481-1492.	4.2	79
150	Modeling Viral Spread. Annual Review of Virology, 2016, 3, 555-572.	3.0	79
151	Estimates of Intracellular Delay and Average Drug Efficacy from Viral Load Data of HIV-Infected Individuals under Antiretroviral Therapy. Antiviral Therapy, 2004, 9, 237-246.	0.6	79
152	Determining thymic output quantitatively: using models to interpret experimental Tâ€cell receptor excision circle (TREC) data. Immunological Reviews, 2007, 216, 21-34.	2.8	78
153	Determining the antiviral activity of tenofovir disoproxil fumarate in treatment-naive chronically HIV-1-infected individuals. Aids, 2003, 17, 1151-1156.	1.0	77
154	Viral Blip Dynamics during Highly Active Antiretroviral Therapy. Journal of Virology, 2003, 77, 12165-12172.	1.5	76
155	Optimal strategies in immunology. Journal of Mathematical Biology, 1976, 3, 325-367.	0.8	75
156	Modeling Long-Term HIV Dynamics and Antiretroviral Response. Journal of Acquired Immune Deficiency Syndromes (1999), 2005, 39, 272-283.	0.9	75
157	An accurate two-phase approximate solution to an acute viral infection model. Journal of Mathematical Biology, 2010, 60, 711-726.	0.8	75
158	Current Estimates for HIV-1 Production Imply Rapid Viral Clearance in Lymphoid Tissues. PLoS Computational Biology, 2010, 6, e1000906.	1.5	75
159	Characterizing T Cell Movement within Lymph Nodes in the Absence of Antigen. Journal of Immunology, 2007, 178, 5505-5512.	0.4	74
160	Elucidation of Hepatitis C Virus Transmission and Early Diversification by Single Genome Sequencing. PLoS Pathogens, 2012, 8, e1002880.	2.1	74
161	Use of Laser Capture Microdissection to Map Hepatitis C Virusâ€“Positive Hepatocytes in Human Liver. Gastroenterology, 2013, 145, 1404-1413.e10.	0.6	74
162	Kinetics of hepatitis C virus reinfection after liver transplantation. Liver Transplantation, 2006, 12, 207-216.	1.3	73

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163	NaÌˆve and Memory Cell Turnover as Drivers of CCR5-to-CXCR4 Tropism Switch in Human Immunodeficiency Virus Type 1: Implications for Therapy. Journal of Virology, 2006, 80, 802-809.	1.5	73
164	Short-Lived Infected Cells Support Virus Replication in Sooty Mangabeys Naturally Infected with Simian Immunodeficiency Virus: Implications for AIDS Pathogenesis. Journal of Virology, 2008, 82, 3725-3735.	1.5	73
165	Receptor clustering on a cell surface. III. theory of receptor cross-linking by multivalent ligands: description by ligand states. Mathematical Biosciences, 1981, 53, 1-39.	0.9	72
166	Modelling hepatitis C therapyâ€"predicting effects of treatment. Nature Reviews Gastroenterology and Hepatology, 2015, 12, 437-445.	8.2	72
167	Estimation of early hepatitis C viral clearance in patients receiving daily interferon and ribavirin therapy using a mathematical model. Hepatology, 2001, 33, 419-423.	3.6	70
168	Dynamic Correlation between Intrahost HIV-1 Quasispecies Evolution and Disease Progression. PLoS Computational Biology, 2008, 4, e1000240.	1.5	70
169	Mechanistic Modeling of SARSâ€CoVâ€2 and Other Infectious Diseases and the Effects of Therapeutics. Clinical Pharmacology and Therapeutics, 2021, 109, 829-840.	2.3	70
170	Th1/Th2 Cross Regulation. Journal of Theoretical Biology, 1994, 170, 25-56.	0.8	69
171	Dynamics of Intermittent Viremia during Highly Active Antiretroviral Therapy in Patients Who Initiate Therapy during Chronic versus Acute and Early Human Immunodeficiency Virus Type 1 Infection. Journal of Virology, 2004, 78, 10566-10573.	1.5	68
172	Treatment of Hepatitis C Virus Infection With Interferon and Small Molecule Direct Antivirals: Viral Kinetics and Modeling. Critical Reviews in Immunology, 2010, 30, 131-148.	1.0	68
173	Mathematical models for the evolution of multigene families by unequal crossing over. Nature, 1977, 265, 304-310.	13.7	67
174	Effect of 1918 PB1-F2 Expression on Influenza A Virus Infection Kinetics. PLoS Computational Biology, 2011, 7, e1001081.	1.5	67
175	Regulation of T cell expansion by antigen presentation dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5914-5919.	3.3	67
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