

# Roland R Regoes

## List of Publications by Year in descending order

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Version: 2024-02-01

100  
papers

6,481  
citations

81743

39  
h-index

76769

74  
g-index

119  
all docs

119  
docs citations

119  
times ranked

8692  
citing authors

#	ARTICLE	IF	CITATIONS
1	Population genetics, biofilm recalcitrance, and antibiotic resistance evolution. <i>Trends in Microbiology</i> , 2022, 30, 841-852.	3.5	32
2	Applying mixture model methods to SARS-CoV-2 serosurvey data from Geneva. <i>Epidemics</i> , 2022, 39, 100572.	1.5	2
3	Estimating the cumulative incidence of SARS-CoV-2 with imperfect serological tests: Exploiting cutoff-free approaches. <i>PLoS Computational Biology</i> , 2021, 17, e1008728.	1.5	16
4	Bacteria primed by antimicrobial peptides develop tolerance and persist. <i>PLoS Pathogens</i> , 2021, 17, e1009443.	2.1	39
5	Effector function does not contribute to protection from virus challenge by a highly potent HIV broadly neutralizing antibody in nonhuman primates. <i>Science Translational Medicine</i> , 2021, 13, .	5.8	23
6	Multi-step vs. single-step resistance evolution under different drugs, pharmacokinetics, and treatment regimens. <i>ELife</i> , 2021, 10, .	2.8	32
7	Pathogen invasion-dependent tissue reservoirs and plasmid-encoded antibiotic degradation boost plasmid spread in the gut. <i>ELife</i> , 2021, 10, .	2.8	15
8	CpG-creating mutations are costly in many human viruses. <i>Evolutionary Ecology</i> , 2020, 34, 339-359.	0.5	14
9	Disentangling non-specific and specific transgenerational immune priming components in host-parasite interactions. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2020, 287, 20192386.	1.2	6
10	Number of HIV-1 founder variants is determined by the recency of the source partner infection. <i>Science</i> , 2020, 369, 103-108.	6.0	11
11	Intestinal epithelial NAIP/NLRC4 restricts systemic dissemination of the adapted pathogen <i>Salmonella Typhimurium</i> due to site-specific bacterial PAMP expression. <i>Mucosal Immunology</i> , 2020, 13, 530-544.	2.7	94
12	Long-term experimental evolution of HIV-1 reveals effects of environment and mutational history. <i>PLoS Biology</i> , 2020, 18, e3001010.	2.6	4
13	COVID-19 infectivity profile correction. <i>Swiss Medical Weekly</i> , 2020, 150, w20336.	0.8	77
14	Long-term experimental evolution of HIV-1 reveals effects of environment and mutational history. , 2020, 18, e3001010.		0
15	Long-term experimental evolution of HIV-1 reveals effects of environment and mutational history. , 2020, 18, e3001010.		0
16	Long-term experimental evolution of HIV-1 reveals effects of environment and mutational history. , 2020, 18, e3001010.		0
17	Long-term experimental evolution of HIV-1 reveals effects of environment and mutational history. , 2020, 18, e3001010.		0
18	Long-term experimental evolution of HIV-1 reveals effects of environment and mutational history. , 2020, 18, e3001010.		0

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19	Long-term experimental evolution of HIV-1 reveals effects of environment and mutational history. , 2020, 18, e3001010.		0
20	Parallel Evolution of HIV-1 in a Long-Term Experiment. <i>Molecular Biology and Evolution</i> , 2019, 36, 2400-2414.	3.5	25
21	Salmonella persisters promote the spread of antibiotic resistance plasmids in the gut. <i>Nature</i> , 2019, 573, 276-280.	13.7	169
22	Predicting drug resistance evolution: insights from antimicrobial peptides and antibiotics. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2018, 285, 20172687.	1.2	139
23	Metabolite toxicity slows local diversity loss during expansion of a microbial cross-feeding community. <i>ISME Journal</i> , 2018, 12, 136-144.	4.4	32
24	Estimating the mutational fitness effects distribution during early HIV infection. <i>Virus Evolution</i> , 2018, 4, vey029.	2.2	12
25	Dissecting HIV Virulence: Heritability of Setpoint Viral Load, CD4+ T-Cell Decline, and Per-Parasite Pathogenicity. <i>Molecular Biology and Evolution</i> , 2018, 35, 27-37.	3.5	37
26	Assessing the public health impact of tolerance-based therapies with mathematical models. <i>PLoS Computational Biology</i> , 2018, 14, e1006119.	1.5	8
27	Virus dynamics and phyloanatomy: Merging population dynamic and phylogenetic approaches. <i>Immunological Reviews</i> , 2018, 285, 134-146.	2.8	11
28	High-avidity IgA protects the intestine by enchaining growing bacteria. <i>Nature</i> , 2017, 544, 498-502.	13.7	307
29	Successive range expansion promotes diversity and accelerates evolution in spatially structured microbial populations. <i>ISME Journal</i> , 2017, 11, 2112-2123.	4.4	46
30	More or lessâ€”On the influence of labelling strategies to infer cell population dynamics. <i>PLoS ONE</i> , 2017, 12, e0185523.	1.1	1
31	Predicting HIV-1 transmission and antibody neutralization efficacy in vivo from stoichiometric parameters. <i>PLoS Pathogens</i> , 2017, 13, e1006313.	2.1	23
32	Investigating the Consequences of Interference between Multiple CD8+ T Cell Escape Mutations in Early HIV Infection. <i>PLoS Computational Biology</i> , 2016, 12, e1004721.	1.5	219
33	Antimicrobial combinations: Bliss independence and Loewe additivity derived from mechanistic multi-hit models. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2016, 371, 20150294.	1.8	66
34	Determinants of HIV-1 broadly neutralizing antibody induction. <i>Nature Medicine</i> , 2016, 22, 1260-1267.	15.2	133
35	Combination Effects of Antimicrobial Peptides. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 1717-1724.	1.4	190
36	Population Dynamics Analysis of Ciprofloxacin-Persistent <i>S. Typhimurium</i> Cells in a Mouse Model for Salmonella Diarrhea. <i>Methods in Molecular Biology</i> , 2016, 1333, 189-203.	0.4	2

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37	Protective Efficacy of Individual CD8+ T Cell Specificities in Chronic Viral Infection. <i>Journal of Immunology</i> , 2015, 194, 1755-1762.	0.4	18
38	The Role of Chance in Primate Lentiviral Infectivity. <i>Progress in Molecular Biology and Translational Science</i> , 2015, 129, 327-351.	0.9	6
39	Different Infectivity of HIV-1 Strains Is Linked to Number of Envelope Trimers Required for Entry. <i>PLoS Pathogens</i> , 2015, 11, e1004595.	2.1	81
40	Estimating the In Vivo Killing Efficacy of Cytotoxic T Lymphocytes across Different Peptide-MHC Complex Densities. <i>PLoS Computational Biology</i> , 2015, 11, e1004178.	1.5	13
41	Insect antimicrobial peptides show potentiating functional interactions against Gram-negative bacteria. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2015, 282, 20150293.	1.2	134
42	The HIV-1 Entry Process: A Stoichiometric View. <i>Trends in Microbiology</i> , 2015, 23, 763-774.	3.5	40
43	Partial rescue of V1V2 mutant infectivity by HIV-1 cell-cell transmission supports the domain's exceptional capacity for sequence variation. <i>Retrovirology</i> , 2014, 11, 75.	0.9	16
44	Granulocytes Impose a Tight Bottleneck upon the Gut Luminal Pathogen Population during <i>Salmonella Typhimurium</i> Colitis. <i>PLoS Pathogens</i> , 2014, 10, e1004557.	2.1	73
45	Cecum Lymph Node Dendritic Cells Harbor Slow-Growing Bacteria Phenotypically Tolerant to Antibiotic Treatment. <i>PLoS Biology</i> , 2014, 12, e1001793.	2.6	139
46	Disentangling Human Tolerance and Resistance Against HIV. <i>PLoS Biology</i> , 2014, 12, e1001951.	2.6	53
47	Predicting the Impact of CD8 <sup>+</sup> T Cell Polyfunctionality on HIV Disease Progression. <i>Journal of Virology</i> , 2014, 88, 10134-10145.	1.5	23
48	Partial rescue of V1V2 mutant infectivity by HIV-1 cell-cell transmission supports the domain's exceptional capacity for sequence variation. <i>Retrovirology</i> , 2014, 11, 75.	0.9	14
49	Mathematical models: A key to understanding HIV envelope interactions?. <i>Journal of Immunological Methods</i> , 2013, 398-399, 1-18.	0.6	8
50	Stabilization of cooperative virulence by the expression of an avirulent phenotype. <i>Nature</i> , 2013, 494, 353-356.	13.7	289
51	Lymph Node Colonization Dynamics after Oral <i>Salmonella Typhimurium</i> Infection in Mice. <i>PLoS Pathogens</i> , 2013, 9, e1003532.	2.1	70
52	Can Non-lytic CD8+ T Cells Drive HIV-1 Escape?. <i>PLoS Pathogens</i> , 2013, 9, e1003656.	2.1	29
53	Viral mutation rates: modelling the roles of within-host viral dynamics and the trade-off between replication fidelity and speed. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2013, 280, 20122047.	1.2	40
54	Influence of the Fibroblastic Reticular Network on Cell-Cell Interactions in Lymphoid Organs. <i>PLoS Computational Biology</i> , 2012, 8, e1002436.	1.5	30

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55	The Role of Exposure History on HIV Acquisition: Insights from Repeated Low-dose Challenge Studies. PLoS Computational Biology, 2012, 8, e1002767.	1.5	27
56	Analysis of the Subunit Stoichiometries in Viral Entry. PLoS ONE, 2012, 7, e33441.	1.1	15
57	Epidemiological and clinical consequences of within-host evolution. Trends in Microbiology, 2011, 19, 24-32.	3.5	91
58	Population biological principles of drug-resistance evolution in infectious diseases. Lancet Infectious Diseases, The, 2011, 11, 236-247.	4.6	220
59	Correction: Theoretical analysis of the evolution of immune memory. BMC Evolutionary Biology, 2011, 11, .	3.2	0
60	Restricted occupancy models for neutralization of HIV virions and populations. Journal of Theoretical Biology, 2011, 283, 192-202.	0.8	20
61	Comparison of cytotoxic T lymphocyte efficacy in acute and persistent lymphocytic choriomeningitis virus infection. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 3395-3402.	1.2	22
62	MPER-specific antibodies induce gp120 shedding and irreversibly neutralize HIV-1. Journal of Experimental Medicine, 2011, 208, 439-454.	4.2	95
63	Dynamic variation in cycling of hematopoietic stem cells in steady state and inflammation. Journal of Experimental Medicine, 2011, 208, 273-284.	4.2	271
64	Interaction of the gp120 V1V2 loop with a neighboring gp120 unit shields the HIV envelope trimer against cross-neutralizing antibodies. Journal of Experimental Medicine, 2011, 208, 1419-1433.	4.2	92
65	Vaccination Alters the Balance between Protective Immunity, Exhaustion, Escape, and Death in Chronic Infections. Journal of Virology, 2011, 85, 5565-5570.	1.5	37
66	Dynamic variation in cycling of hematopoietic stem cells in steady state and inflammation. Journal of Cell Biology, 2011, 192, i3-i3.	2.3	0
67	Theoretical analysis of the evolution of immune memory. BMC Evolutionary Biology, 2010, 10, 380.	3.2	8
68	Population genetics meets cancer genomics. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18241-18242.	3.3	5
69	Similar Impact of CD8+ T Cell Responses on Early Virus Dynamics during SIV Infections of Rhesus Macaques and Sooty Mangabeys. PLoS Computational Biology, 2010, 6, e1000901.	1.5	9
70	Estimating the Stoichiometry of HIV Neutralization. PLoS Computational Biology, 2010, 6, e1000713.	1.5	31
71	Pathogen Dose Infectivity Curves as a Method to Analyze the Distribution of Host Susceptibility: A Quantitative Assessment of Maternal Effects after Food Stress and Pathogen Exposure. American Naturalist, 2010, 175, 106-115.	1.0	73
72	Estimating the Stoichiometry of Human Immunodeficiency Virus Entry. Journal of Virology, 2009, 83, 1523-1531.	1.5	95

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73	Investigating CTL Mediated Killing with a 3D Cellular Automaton. PLoS Computational Biology, 2009, 5, e1000466.	1.5	44
74	RAPID PARASITE ADAPTATION DRIVES SELECTION FOR HIGH RECOMBINATION RATES. Evolution; International Journal of Organic Evolution, 2008, 62, 295-300.	1.1	65
75	A quantitative test of the relationship between parasite dose and infection probability across different host-parasite combinations. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 853-859.	1.2	78
76	A Population Dynamics Analysis of the Interaction between Adaptive Regulatory T Cells and Antigen Presenting Cells. PLoS ONE, 2008, 3, e2306.	1.1	28
77	Estimation of the rate of killing by cytotoxic T lymphocytes in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1599-1603.	3.3	68
78	Estimating the Effectiveness of Simian Immunodeficiency Virus-Specific CD8 <sup>+</sup> T Cells from the Dynamics of Viral Immune Escape. Journal of Virology, 2007, 81, 11982-11991.	1.5	41
79	The effect of population structure on the emergence of drug resistance during influenza pandemics. Journal of the Royal Society Interface, 2007, 4, 893-906.	1.5	54
80	Revisiting Estimates of CTL Killing Rates In Vivo. PLoS ONE, 2007, 2, e1301.	1.1	42
81	Mathematical models of cytotoxic T lymphocyte killing. Immunology and Cell Biology, 2007, 85, 274-279.	1.0	38
82	The Role of Compensatory Mutations in the Emergence of Drug Resistance. PLoS Computational Biology, 2006, 2, e137.	1.5	110
83	How do pathogen evolution and host heterogeneity interact in disease emergence?. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 3075-3083.	1.2	72
84	Pharmacodynamics of non-replicating viruses, bacteriocins and lysins. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 2703-2712.	1.2	25
85	Modelling cytomegalovirus replication patterns in the human host: factors important for pathogenesis. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 1961-1967.	1.2	14
86	Emergence of Drug-Resistant Influenza Virus: Population Dynamical Considerations. Science, 2006, 312, 389-391.	6.0	155
87	Preclinical Assessment of HIV Vaccines and Microbicides by Repeated Low-Dose Virus Challenges. PLoS Medicine, 2005, 2, e249.	3.9	61
88	Phenotypic Tolerance: Antibiotic Enrichment of Noninherited Resistance in Bacterial Populations. Antimicrobial Agents and Chemotherapy, 2005, 49, 1483-1494.	1.4	178
89	Optimal Replication of Poliovirus within Cells. American Naturalist, 2005, 165, 364-373.	1.0	31
90	The HIV coreceptor switch: a population dynamical perspective. Trends in Microbiology, 2005, 13, 269-277.	3.5	174

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91	Pharmacodynamic Functions: a Multiparameter Approach to the Design of Antibiotic Treatment Regimens. <i>Antimicrobial Agents and Chemotherapy</i> , 2004, 48, 3670-3676.	1.4	298
92	Roles of Target Cells and Virus-Specific Cellular Immunity in Primary Simian Immunodeficiency Virus Infection. <i>Journal of Virology</i> , 2004, 78, 4866-4875.	1.5	46
93	The role of evolution in the emergence of infectious diseases. <i>Nature</i> , 2003, 426, 658-661.	13.7	473
94	Contribution of Peaks of Virus Load to Simian Immunodeficiency Virus Pathogenesis. <i>Journal of Virology</i> , 2002, 76, 2573-2578.	1.5	12
95	Dose-dependent infection rates of parasites produce the Allee effect in epidemiology. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2002, 269, 271-279.	1.2	122
96	HIV Coreceptor Usage and Drug Treatment. <i>Journal of Theoretical Biology</i> , 2002, 217, 443-457.	0.8	10
97	EVOLUTION OF VIRULENCE IN A HETEROGENEOUS HOST POPULATION. <i>Evolution; International Journal of Organic Evolution</i> , 2000, 54, 64-71.	1.1	137
98	EVOLUTION OF VIRULENCE IN A HETEROGENEOUS HOST POPULATION. <i>Evolution; International Journal of Organic Evolution</i> , 2000, 54, 64.	1.1	6
99	Virus Dynamics: the Effect of Target Cell Limitation and Immune Responses on Virus Evolution. <i>Journal of Theoretical Biology</i> , 1998, 191, 451-462.	0.8	88
100	Modeling Polygenic Antibiotic Resistance Evolution in Biofilms. <i>Frontiers in Microbiology</i> , 0, 13, .	1.5	5