Stephen H Hughes

List of Publications by Year
in descending order

117 papers	10,309 citations	38742 50 h-index	36028 97 g-index
122 all docs	122 docs citations	122 times ranked	7896 citing authors

#	Article	IF	Citations
1	A Combination of Amino Acid Mutations Leads to Resistance to Multiple Nucleoside Analogs in Reverse Transcriptases from HIV-1 Subtypes B and C. Antimicrobial Agents and Chemotherapy, 2022, 66, AAC0150021.	3.2	1
2	Structureâ€based nonâ€nucleoside inhibitor design: Developing inhibitors that are effective against resistant mutants. Chemical Biology and Drug Design, 2021, 97, 4-17.	3.2	8
3	HIV-1 Integrase Inhibitors with Modifications That Affect Their Potencies against Drug Resistant Integrase Mutants. ACS Infectious Diseases, 2021, 7, 1469-1482.	3.8	14
4	Integration in oncogenes plays only a minor role in determining the in vivo distribution of HIV integration sites before or during suppressive antiretroviral therapy. PLoS Pathogens, 2021, 17, e1009141.	4.7	36
5	Early Emergence and Long-Term Persistence of HIV-Infected T-Cell Clones in Children. MBio, 2021, 12, .	4.1	7
6	Reverse-transcribed SARS-CoV-2 RNA can integrate into the genome of cultured human cells and can be expressed in patient-derived tissues. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	175
7	Tracking HIV-1-Infected Cell Clones Using Integration Site-Specific qPCR. Viruses, 2021, 13, 1235.	3.3	10
8	Crystal Structure of a Retroviral Polyprotein: Prototype Foamy Virus Protease-Reverse Transcriptase (PR-RT). Viruses, 2021, 13, 1495.	3.3	4
9	Response to Parry et al.: Strong evidence for genomic integration of SARS-CoV-2 sequences and expression in patient tissues. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	9
10	Structural basis for the inhibition of HTLV-1 integration inferred from cryo-EM deltaretroviral intasome structures. Nature Communications, 2021, 12, 4996.	12.8	11
11	Mouse papillomavirus type 1 (MmuPV1) DNA is frequently integrated in benign tumors by microhomology-mediated end-joining. PLoS Pathogens, 2021, 17, e1009812.	4.7	12
12	Integrase Strand Transfer Inhibitors Are Effective Anti-HIV Drugs. Viruses, 2021, 13, 205.	3.3	42
13	Clonal Expansion of Infected CD4+ T Cells in People Living with HIV. Viruses, 2021, 13, 2078.	3.3	11
14	Insertional activation of STAT3 and LCK by HIV-1 proviruses in T cell lymphomas. Science Advances, 2021, 7, eabi8795.	10.3	17
15	Reply to Briggs et al.: Genomic integration and expression of SARS-CoV-2 sequences can explain prolonged or recurrent viral RNA detection. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	6
16	INSTIs and NNRTIs Potently Inhibit HIV-1 Polypurine Tract Mutants in a Single Round Infection Assay. Viruses, 2021, 13, 2501.	3.3	8
17	An analytical pipeline for identifying and mapping the integration sites of HIV and other retroviruses. BMC Genomics, 2020, 21, 216.	2.8	21
18	HIV-1 Integrase Inhibitors That Are Active against Drug-Resistant Integrase Mutants. Antimicrobial Agents and Chemotherapy, 2020, 64, .	3.2	21

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19	Structural basis for strand-transfer inhibitor binding to HIV intasomes. Science, 2020, 367, 810-814.	12.6	74
20	Dynamic Shifts in the HIV Proviral Landscape During Long Term Combination Antiretroviral Therapy: Implications for Persistence and Control of HIV Infections. Viruses, 2020, 12, 136.	3.3	32
21	HIV-1 viremia not suppressible by antiretroviral therapy can originate from large T cell clones producing infectious virus. Journal of Clinical Investigation, 2020, 130, 5847-5857.	8.2	85
22	Clonal expansion of SIV-infected cells in macaques on antiretroviral therapy is similar to that of HIV-infected cells in humans. PLoS Pathogens, 2019, 15, e1007869.	4.7	29
23	A9â€ƒA method to obtain full-length HIV proviral sequences and their sites of integration. Virus Evolution, 2019, 5, .	4.9	1
24	A12â€ƒModeling residual HIV replication and the emergence of drug resistance on ART. Virus Evolution, 2019, 5, .	4.9	0
25	HIV Infected T Cells Can Proliferate in vivo Without Inducing Expression of the Integrated Provirus. Frontiers in Microbiology, 2019, 10, 2204.	3.5	46
26	Two Coselected Distal Mutations in HIV-1 Reverse Transcriptase (RT) Alter Susceptibility to Nonnucleoside RT Inhibitors and Nucleoside Analogs. Journal of Virology, 2019, 93, .	3.4	2
27	Clonal expansion of CAR T cells harboring lentivector integration in the CBL gene following anti-CD22 CAR T-cell therapy. Blood Advances, 2019, 3, 2317-2322.	5.2	69
28	Combined HIV-1 sequence and integration site analysis informs viral dynamics and allows reconstruction of replicating viral ancestors. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 25891-25899.	7.1	78
29	Clones of infected cells arise early in HIV-infected individuals. JCI Insight, 2019, 4, .	5.0	59
30	HIV-1 in lymph nodes is maintained by cellular proliferation during antiretroviral therapy. Journal of Clinical Investigation, 2019, 129, 4629-4642.	8.2	84
31	Developing and Evaluating Inhibitors against the RNase H Active Site of HIV-1 Reverse Transcriptase. Journal of Virology, 2018, 92, .	3.4	30
32	Capsid-CPSF6 Interaction Licenses Nuclear HIV-1 Trafficking to Sites of Viral DNA Integration. Cell Host and Microbe, 2018, 24, 392-404.e8.	11.0	141
33	Efficacies of Cabotegravir and Bictegravir against drug-resistant HIV-1 integrase mutants. Retrovirology, 2018, 15, 37.	2.0	89
34	Reprogramming human T cell function and specificity with non-viral genome targeting. Nature, 2018, 559, 405-409.	27.8	630
35	HIV-1 Integrase Inhibitors That Are Broadly Effective against Drug-Resistant Mutants. Antimicrobial Agents and Chemotherapy, 2018, 62, .	3.2	21
36	Structure-Guided Optimization of HIV Integrase Strand Transfer Inhibitors. Journal of Medicinal Chemistry, 2017, 60, 7315-7332.	6.4	44

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37	Proviruses with identical sequences comprise a large fraction of the replication-competent HIV reservoir. PLoS Pathogens, 2017, 13, e1006283.	4.7	209
38	Retrovirus Integration Database (RID): a public database for retroviral insertion sites into host genomes. Retrovirology, 2016, 13, 47.	2.0	38
39	Rilpivirine and Doravirine Have Complementary Efficacies Against NNRTI-Resistant HIV-1 Mutants. Journal of Acquired Immune Deficiency Syndromes (1999), 2016, 72, 485-491.	2.1	42
40	What Integration Sites Tell Us about HIV Persistence. Cell Host and Microbe, 2016, 19, 588-598.	11.0	61
41	Selectivity for strand-transfer over 3â€²-processing and susceptibility to clinical resistance of HIV-1 integrase inhibitors are driven by key enzymeâ€“DNA interactions in the active site. Nucleic Acids Research, 2016, 44, 6896-6906.	14.5	16
42	Multiple Origins of Virus Persistence during Natural Control of HIV Infection. Cell, 2016, 166, 1004-1015.	28.9	156
43	Drug resistant integrase mutants cause aberrant HIV integrations. Retrovirology, 2016, 13, 71.	2.0	8
44	Rilpivirine analogs potently inhibit drug-resistant HIV-1 mutants. Retrovirology, 2016, 13, 11.	2.0	10
45	Clonally expanded CD4 ⁺ T cells can produce infectious HIV-1 in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1883-1888.	7.1	302
46	HIV-1 Integrase Strand Transfer Inhibitors with Reduced Susceptibility to Drug Resistant Mutant Integrases. ACS Chemical Biology, 2016, 11, 1074-1081.	3.4	35
47	Reverse Transcription of Retroviruses and LTR Retrotransposons. Microbiology Spectrum, 2015, 3, MDNA3-0027-2014.	3.0	42
48	Analysis of the Zidovudine Resistance Mutations T215Y, M41L, and L210W in HIV-1 Reverse Transcriptase. Antimicrobial Agents and Chemotherapy, 2015, 59, 7184-7196.	3.2	8
49	Mutations in human immunodeficiency virus type 1 reverse transcriptase that make it sensitive to degradation by the viral protease in virions are selected against in patients. Virology, 2015, 484, 127-135.	2.4	1
50	LEDGF/p75 interacts with mRNA splicing factors and targets HIV-1 integration to highly spliced genes. Genes and Development, 2015, 29, 2287-2297.	5.9	90
51	Enhancers Are Major Targets for Murine Leukemia Virus Vector Integration. Journal of Virology, 2014, 88, 4504-4513.	3.4	88
52	4-Amino-1-hydroxy-2-oxo-1,8-naphthyridine-Containing Compounds Having High Potency against Raltegravir-Resistant Integrase Mutants of HIV-1. Journal of Medicinal Chemistry, 2014, 57, 5190-5202.	6.4	35
53	Bicyclic 1-Hydroxy-2-oxo-1,2-dihydropyridine-3-carboxamide-Containing HIV-1 Integrase Inhibitors Having High Antiviral Potency against Cells Harboring Raltegravir-Resistant Integrase Mutants. Journal of Medicinal Chemistry, 2014, 57, 1573-1582.	6.4	38
54	Mutations in HIV-1 Reverse Transcriptase Affect the Errors Made in a Single Cycle of Viral Replication. Journal of Virology, 2014, 88, 7589-7601.	3.4	46

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55	Rapid Screening of HIV Reverse Transcriptase and Integrase Inhibitors. Journal of Visualized Experiments, 2014, , .	0.3	13
56	A Homology Model of HIV-1 Integrase and Analysis of Mutations Designed to Test the Model. Journal of Molecular Biology, 2013, 425, 2133-2146.	4.2	46
57	Activities, Crystal Structures, and Molecular Dynamics of Dihydro-1H-isoindole Derivatives, Inhibitors of HIV-1 Integrase. ACS Chemical Biology, 2013, 8, 209-217.	3.4	44
58	Mutations in HIV-1 reverse transcriptase cause misfolding and miscleavage by the viral protease. Virology, 2013, 444, 241-249.	2.4	7
59	Differential Effects of Human Immunodeficiency Virus Type 1 Capsid and Cellular Factors Nucleoporin 153 and LEDGF/p75 on the Efficiency and Specificity of Viral DNA Integration. Journal of Virology, 2013, 87, 648-658.	3.4	108
60	Treatment with suboptimal doses of raltegravir leads to aberrant HIV-1 integrations. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14747-14752.	7.1	26
61	HIV-1 Reverse Transcription. Cold Spring Harbor Perspectives in Medicine, 2012, 2, a006882-a006882.	6.2	311
62	Human Immunodeficiency Virus Type 1 Capsid Mutation N74D Alters Cyclophilin A Dependence and Impairs Macrophage Infection. Journal of Virology, 2012, 86, 4708-4714.	3.4	84
63	Molecular Dynamics Approaches Estimate the Binding Energy of HIV-1 Integrase Inhibitors and Correlate with In Vitro Activity. Antimicrobial Agents and Chemotherapy, 2012, 56, 411-419.	3.2	39
64	A comparison of the ability of rilpivirine (TMC278) and selected analogues to inhibit clinically relevant HIV-1 reverse transcriptase mutants. Retrovirology, 2012, 9, 99.	2.0	29
65	6,7-Dihydroxy-1-oxoisoindoline-4-sulfonamide-containing HIV-1 integrase inhibitors. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 7309-7313.	2.2	20
66	HIV-1 and HIV-2 Reverse Transcriptases: Different Mechanisms of Resistance to Nucleoside Reverse Transcriptase Inhibitors. Journal of Virology, 2012, 86, 5885-5894.	3.4	42
67	Bicyclic Hydroxyâ€ Hâ€pyrrolopyridineâ€trione Containing HIVâ€ Integrase Inhibitors. Chemical Biology and Drug Design, 2012, 79, 157-165.	3.2	25
68	The effects of RNase H inhibitors and nevirapine on the susceptibility of HIV-1 to AZT and 3TC. Virology, 2011, 419, 64-71.	2.4	7
69	Development of tricyclic hydroxy-1H-pyrrolopyridine-trione containing HIV-1 integrase inhibitors. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 2986-2990.	2.2	22
70	Structural and Functional Analyses of the Second-Generation Integrase Strand Transfer Inhibitor Dolutegravir (S/GSK1349572). Molecular Pharmacology, 2011, 80, 565-572.	2.3	223
71	MK-0536 Inhibits HIV-1 Integrases Resistant to Raltegravir. Antimicrobial Agents and Chemotherapy, 2011, 55, 5127-5133.	3.2	33
72	Structural basis of HIV-1 resistance to AZT by excision. Nature Structural and Molecular Biology, 2010, 17, 1202-1209.	8.2	115

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73	Nature, Position, and Frequency of Mutations Made in a Single Cycle of HIV-1 Replication. Journal of Virology, 2010, 84, 9864-9878.	3.4	209
74	Lens epithelium-derived growth factor fusion proteins redirect HIV-1 DNA integration. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3135-3140.	7.1	129
75	Flexible Use of Nuclear Import Pathways by HIV-1. Cell Host and Microbe, 2010, 7, 221-233.	11.0	396
76	Mutations in the Thumb Allow Human Immunodeficiency Virus Type 1 Reverse Transcriptase To Be Cleaved by Protease in Virions. Journal of Virology, 2009, 83, 12336-12344.	3.4	20
77	Structural Basis for the Role of the K65R Mutation in HIV-1 Reverse Transcriptase Polymerization, Excision Antagonism, and Tenofovir Resistance. Journal of Biological Chemistry, 2009, 284, 35092-35100.	3.4	81
78	Structure of HIV-1 Reverse Transcriptase with the Inhibitor Î²-Thujaplicinol Bound at the RNase H Active Site. Structure, 2009, 17, 1625-1635.	3.3	135
79	Structure and Function of HIV-1 Reverse Transcriptase: Molecular Mechanisms of Polymerization and Inhibition. Journal of Molecular Biology, 2009, 385, 693-713.	4.2	426
80	Dâ€(+)â€isoâ€Methanocarbathymidine: a Highâ€Affinity Substrate for Herpes Simplex Virusâ€…1 Thymidine Kinase. ChemMedChem, 2008, 3, 1129-1134.	3.2	8
81	High-resolution structures of HIV-1 reverse transcriptase/TMC278 complexes: Strategic flexibility explains potency against resistance mutations. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1466-1471.	7.1	310
82	2,3-Dihydro-6,7-dihydroxy-1H-isoindol-1-one-Based HIV-1 Integrase Inhibitors. Journal of Medicinal Chemistry, 2008, 51, 251-259.	6.4	48
83	Mutations in the U5 Region Adjacent to the Primer Binding Site Affect tRNA Cleavage by Human Immunodeficiency Virus Type 1 Reverse Transcriptase In Vivo. Journal of Virology, 2008, 82, 719-727.	3.4	12
84	Crystal engineering of HIV-1 reverse transcriptase for structure-based drug design. Nucleic Acids Research, 2008, 36, 5083-5092.	14.5	91
85	Integration of Rous Sarcoma Virus DNA: a CA Dinucleotide Is Not Required for Integration of the U3 End of Viral DNA. Journal of Virology, 2008, 82, 11480-11483.	3.4	5
86	HIV-1 reverse transcriptase connection subdomain mutations reduce template RNA degradation and enhance AZT excision. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 10943-10948.	7.1	57
87	Rous Sarcoma Virus (RSV) Integration In Vivo: a CA Dinucleotide Is Not Required in U3, and RSV Linear DNA Does Not Autointegrate. Journal of Virology, 2008, 82, 503-512.	3.4	11
88	Human T-Cell Leukemia Virus Type 1 Integration Target Sites in the Human Genome: Comparison with Those of Other Retroviruses. Journal of Virology, 2007, 81, 6731-6741.	3.4	159
89	Crystal Structures of Clinically Relevant Lys103Asn/Tyr181Cys Double Mutant HIV-1 Reverse Transcriptase in Complexes with ATP and Non-nucleoside Inhibitor HBY 097. Journal of Molecular Biology, 2007, 365, 77-89.	4.2	83
90	In vitro fidelity of the prototype primate foamy virus (PFV) RT compared to HIV-1 RT. Virology, 2007, 367, 253-264.	2.4	30

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91	Why Do HIV-1 and HIV-2 Use Different Pathways to Develop AZT Resistance?. PLoS Pathogens, 2006, 2, e10.	4.7	62
92	Alternate Polypurine Tracts Affect Rous Sarcoma Virus Integration In Vivo. Journal of Virology, 2006, 80, 10281-10284.	3.4	17
93	Mutations in the U5 Sequences Adjacent to the Primer Binding Site Do Not Affect tRNA Cleavage by Rous Sarcoma Virus RNase H but Do Cause Aberrant Integrations In Vivo. Journal of Virology, 2006, 80, 451-459.	3.4	27
94	Crystallography and the design of anti-AIDS drugs: conformational flexibility and positional adaptability are important in the design of non-nucleoside HIV-1 reverse transcriptase inhibitors. Progress in Biophysics and Molecular Biology, 2005, 88, 209-231.	2.9	210
95	In Search of a Novel Anti-HIV Drug:Â Multidisciplinary Coordination in the Discovery of 4-[[4-[[4-[(1E)-2-Cyanoethenyl]-2,6-dimethylphenyl]amino]-2- pyrimidinyl]amino]benzonitrile (R278474,) Tj ETQq1 1 0.784314 rgBT /O	4.4	126
96	Effects of Mutations in the G Tract of the Human Immunodeficiency Virus Type 1 Polypurine Tract on Virus Replication and RNase H Cleavage. Journal of Virology, 2004, 78, 13315-13324.	3.4	32
97	Characterization of the Polymerase and RNase H Activities of Human Foamy Virus Reverse Transcriptase. Journal of Virology, 2004, 78, 6112-6121.	3.4	29
98	Effects of the Î”67 Complex of Mutations in Human Immunodeficiency Virus Type 1 Reverse Transcriptase on Nucleoside Analog Excision. Journal of Virology, 2004, 78, 9987-9997.	3.4	31
99	Structures of HIV-1 RTâ€“DNA complexes before and after incorporation of the anti-AIDS drug tenofovir. Nature Structural and Molecular Biology, 2004, 11, 469-474.	8.2	157
100	Taking aim at a moving target: designing drugs to inhibit drug-resistant HIV-1 reverse transcriptases. Current Opinion in Structural Biology, 2004, 14, 716-730.	5.7	130
101	Roles of Conformational and Positional Adaptability in Structure-Based Design of TMC125-R165335 (Etravirine) and Related Non-nucleoside Reverse Transcriptase Inhibitors That Are Highly Potent and Effective against Wild-Type and Drug-Resistant HIV-1 Variants. Journal of Medicinal Chemistry, 2004, 47, 2550-2560.	6.4	507
102	Nucleoside Analog Resistance Caused by Insertions in the Fingers of Human Immunodeficiency Virus Type 1 Reverse Transcriptase Involves ATP-Mediated Excision. Journal of Virology, 2002, 76, 9143-9151.	3.4	89
103	The M184V Mutation Reduces the Selective Excision of Zidovudine 5â€²-Monophosphate (AZTMP) by the Reverse Transcriptase of Human Immunodeficiency Virus Type 1. Journal of Virology, 2002, 76, 3248-3256.	3.4	85
104	Mutations in the RNase H domain of HIV-1 reverse transcriptase affect the initiation of DNA synthesis and the specificity of RNase H cleavage in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 9515-9520.	7.1	101
105	Altering the RNase H Primer Grip of Human Immunodeficiency Virus Reverse Transcriptase Modifies Cleavage Specificity. Biochemistry, 2002, 41, 4856-4865.	2.5	69
106	Structures of HIV-1 reverse transcriptase with pre- and post-translocation AZTMP-terminated DNA. EMBO Journal, 2002, 21, 6614-6624.	7.8	185
107	The Lys103Asn mutation of HIV-1 RT: a novel mechanism of drug resistance. Journal of Molecular Biology, 2001, 309, 437-445.	4.2	175
108	Selective Excision of AZTMP by Drug-Resistant Human Immunodeficiency Virus Reverse Transcriptase. Journal of Virology, 2001, 75, 4832-4842.	3.4	241

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109	Replication of Phenotypically Mixed Human Immunodeficiency Virus Type 1 Virions Containing Catalytically Active and Catalytically Inactive Reverse Transcriptase. Journal of Virology, 2001, 75, 6537-6546.	3.4	116
110	In Vitro Analysis of Human Immunodeficiency Virus Type 1 Minus-Strand Strong-Stop DNA Synthesis and Genomic RNA Processing. Journal of Virology, 2001, 75, 672-686.	3.4	35
111	Effects of Amino Acid Substitutions at Position 115 on the Fidelity of Human Immunodeficiency Virus Type 1 Reverse Transcriptase. Journal of Virology, 2000, 74, 6494-6500.	3.4	34
112	The role of steric hindrance in 3TC resistance of human immunodeficiency virus type-1 reverse transcriptase 1 1Edited by A. R. Fersht. Journal of Molecular Biology, 2000, 300, 403-418.	4.2	122
113	Crystal Structures of 8-Cl and 9-Cl TIBO Complexed with Wild-type HIV-1 RT and 8-Cl TIBO Complexed with the Tyr181Cys HIV-1 RT Drug-resistant Mutant. Journal of Molecular Biology, 1996, 264, 1085-1100.	4.2	214
114	Locations of Anti-AIDS Drug Binding Sites and Resistance Mutations in the Three-dimensional Structure of HIV-1 Reverse Transcriptase. Journal of Molecular Biology, 1994, 243, 369-387.	4.2	526
115	Immunologic and proteolytic analysis of HIV-1 reverse transcriptase structure. Virology, 1990, 175, 456-464.	2.4	60
116	Heterogeneity of genetic loci in chickens: analysis of endogenous viral and nonviral genes by cleavage of DNA with restriction endonucleases. Cell, 1979, 18, 347-359.	28.9	164
117	Reverse Transcription of Retroviruses and LTR Retrotransposons. , 0, , 1051-1077.		4