Stefan G Sarafianos

List of Publications by Year in Descending Order

161 papers	7,606 citations	49 h-index	83 g-index
173 ext. papers	8,491 ext. citations	8.5 avg, IF	5.63 L-index

#	Paper	IF	Citations
161	Structure-based virtual screening workflow to identify antivirals targeting HIV-1 capsid.. *Journal of Computer-Aided Molecular Design*, **2022**, 36, 193	4.2	1
160	Design, Synthesis and Characterization of HIV-1 CA-Targeting Small Molecules: Conformational Restriction of PF74. *Viruses*, **2021**, 13,	6.2	5
159	Discovery of New Small Molecule Hits as Hepatitis B Virus Capsid Assembly Modulators: Structure and Pharmacophore-Based Approaches. *Viruses*, **2021**, 13,	6.2	4
158	Molecular Dynamics Free Energy Simulations Reveal the Mechanism for the Antiviral Resistance of the M66I HIV-1 Capsid Mutation. *Viruses*, **2021**, 13,	6.2	5
157	Proteins and Disease | Structural Basis of HIV Reverse Transcription, Inhibition, and Drug Resistance **2021**, 92-104		1
156	Novel PF74-like small molecules targeting the HIV-1 capsid protein: Balance of potency and metabolic stability. *Acta Pharmaceutica Sinica B*, **2021**, 11, 810-822	15.5	7
155	Comparison of anti-SARS-CoV-2 activity and intracellular metabolism of remdesivir and its parent nucleoside. *Current Research in Pharmacology and Drug Discovery*, **2021**, 2, 100045	3	4
154	Development of Human Immunodeficiency Virus Type 1 Resistance to 4REthynyl-2-Fluoro-2RDeoxyadenosine Starting with Wild-Type or Nucleoside Reverse Transcriptase Inhibitor-Resistant Strains. *Antimicrobial Agents and Chemotherapy*, **2021**, 65, e0116721	5.9	2
153	Avoiding Drug Resistance in HIV Reverse Transcriptase. *Chemical Reviews*, **2021**, 121, 3271-3296	68.1	18
152	Potency and metabolic stability: a molecular hybrid case in the design of novel PF74-like small molecules targeting HIV-1 capsid protein.. *RSC Medicinal Chemistry*, **2021**, 12, 2031-2044	3.5	0
151	Rotten to the core: antivirals targeting the HIV-1 capsid core.. *Retrovirology*, **2021**, 18, 41	3.6	5
150	Feasibility of Known RNA Polymerase Inhibitors as Anti-SARS-CoV-2 Drugs. *Pathogens*, **2020**, 9,	4.5	22
149	Effect of P-body component Mov10 on HCV virus production and infectivity. *FASEB Journal*, **2020**, 34, 9433-9449	0.9	4
148	7-Deaza-7-fluoro modification confers on 4Rcyano-nucleosides potent activity against entecavir/adefovir-resistant HBV variants and favorable safety. *Antiviral Research*, **2020**, 176, 104744	10.8	6
147	Toward Structurally Novel and Metabolically Stable HIV-1 Capsid-Targeting Small Molecules. *Viruses*, **2020**, 12,	6.2	12
146	Chemical profiling of HIV-1 capsid-targeting antiviral PF74. *European Journal of Medicinal Chemistry*, **2020**, 200, 112427	6.8	12
145	Cutting into the Substrate Dominance: Pharmacophore and Structure-Based Approaches toward Inhibiting Human Immunodeficiency Virus Reverse Transcriptase-Associated Ribonuclease H. *Accounts of Chemical Research*, **2020**, 53, 218-230	24.3	17

144	HIV-1 replication complexes accumulate in nuclear speckles and integrate into speckle-associated genomic domains. *Nature Communications*, **2020**, 11, 3505	17.4	48
143	Novel HIV-1 capsid-targeting small molecules of the PF74 binding site. *European Journal of Medicinal Chemistry*, **2020**, 204, 112626	6.8	10
142	Conformational Changes in HIV-1 Reverse Transcriptase that Facilitate Its Maturation. *Structure*, **2019**, 27, 1581-1593.e3	5.2	3
141	Determinants of Active-Site Inhibitor Interaction with HIV-1 RNase H. *ACS Infectious Diseases*, **2019**, 5, 1963-1974	5.5	6
140	CMCdG, a Novel Nucleoside Analog with Favorable Safety Features, Exerts Potent Activity against Wild-Type and Entecavir-Resistant Hepatitis B Virus. *Antimicrobial Agents and Chemotherapy*, **2019**, 63,	5.9	11
139	Long-Acting Anti-HIV Drugs Targeting HIV-1 Reverse Transcriptase and Integrase. *Pharmaceuticals*, **2019**, 12,	5.2	25
138	Novel Intersubunit Interaction Critical for HIV-1 Core Assembly Defines a Potentially Targetable Inhibitor Binding Pocket. *MBio*, **2019**, 10,	7.8	11
137	Pharmacophore-based design of novel 3-hydroxypyrimidine-2,4-dione subtypes as inhibitors of HIV reverse transcriptase-associated RNase H: Tolerance of a nonflexible linker. *European Journal of Medicinal Chemistry*, **2019**, 166, 390-399	6.8	11
136	Effects of Moloney Leukemia Virus 10 Protein on Hepatitis B Virus Infection and Viral Replication. *Viruses*, **2019**, 11,	6.2	5
135	Visualization of Positive and Negative Sense Viral RNA for Probing the Mechanism of Direct-Acting Antivirals against Hepatitis C Virus. *Viruses*, **2019**, 11,	6.2	5
134	Novel Hepatitis B Virus Capsid-Targeting Antiviral That Aggregates Core Particles and Inhibits Nuclear Entry of Viral Cores. *ACS Infectious Diseases*, **2019**, 5, 750-758	5.5	8
133	5-Aminothiophene-2,4-dicarboxamide analogues as hepatitis B virus capsid assembly effectors. *European Journal of Medicinal Chemistry*, **2019**, 164, 179-192	6.8	11
132	The Heteroaryldihydropyrimidine Bay 38-7690 Induces Hepatitis B Virus Core Protein Aggregates Associated with Promyelocytic Leukemia Nuclear Bodies in Infected Cells. *MSphere*, **2018**, 3,	5	12
131	4REthynyl-2-fluoro-2Rdeoxyadenosine, MK-8591: a novel HIV-1 reverse transcriptase translocation inhibitor. *Current Opinion in HIV and AIDS*, **2018**, 13, 294-299	4.2	53
130	Antiretroviral potency of 4Rethnyl-2Rfluoro-2Rdeoxyadenosine, tenofovir alafenamide and second-generation NNRTIs across diverse HIV-1 subtypes. *Journal of Antimicrobial Chemotherapy*, **2018**, 73, 2721-2728	5.1	10
129	Contribution of a Multifunctional Polymerase Region of Foot-and-Mouth Disease Virus to Lethal Mutagenesis. *Journal of Virology*, **2018**, 92,	6.6	3
128	6-Biphenylmethyl-3-hydroxypyrimidine-2,4-diones potently and selectively inhibited HIV reverse transcriptase-associated RNase H. *European Journal of Medicinal Chemistry*, **2018**, 156, 680-691	6.8	18
127	6-Arylthio-3-hydroxypyrimidine-2,4-diones potently inhibited HIV reverse transcriptase-associated RNase H with antiviral activity. *European Journal of Medicinal Chemistry*, **2018**, 156, 652-665	6.8	14

126	Effect of tRNA on the Maturation of HIV-1 Reverse Transcriptase. *Journal of Molecular Biology*, **2018**, 430, 1891-1900	6.5	5
125	Structural Implications of Genotypic Variations in HIV-1 Integrase From Diverse Subtypes. *Frontiers in Microbiology*, **2018**, 9, 1754	5.7	11
124	Visualization of HIV-1 RNA Transcription from Integrated HIV-1 DNA in Reactivated Latently Infected Cells. *Viruses*, **2018**, 10,	6.2	6
123	Identification of a Structural Element in HIV-1 Gag Required for Virus Particle Assembly and Maturation. *MBio*, **2018**, 9,	7.8	8
122	The High Genetic Barrier of EFdA/MK-8591 Stems from Strong Interactions with the Active Site of Drug-Resistant HIV-1 Reverse Transcriptase. *Cell Chemical Biology*, **2018**, 25, 1268-1278.e3	8.2	16
121	Capsid-CPSF6 Interaction Licenses Nuclear HIV-1 Trafficking to Sites of Viral DNA Integration. *Cell Host and Microbe*, **2018**, 24, 392-404.e8	23.4	96
120	Increased replication capacity following evolution of PYxE insertion in Gag-p6 is associated with enhanced virulence in HIV-1 subtype C from East Africa. *Journal of Medical Virology*, **2017**, 89, 106-111	19.7	10
119	6-Cyclohexylmethyl-3-hydroxypyrimidine-2,4-dione as an inhibitor scaffold of HIV reverase transcriptase: Impacts of the 3-OH on inhibiting RNase H and polymerase. *European Journal of Medicinal Chemistry*, **2017**, 128, 168-179	6.8	14
118	Double-Winged 3-Hydroxypyrimidine-2,4-diones: Potent and Selective Inhibition against HIV-1 RNase H with Significant Antiviral Activity. *Journal of Medicinal Chemistry*, **2017**, 60, 5045-5056	8.3	27
117	Impact of HIV-1 Integrase L74F and V75I Mutations in a Clinical Isolate on Resistance to Second-Generation Integrase Strand Transfer Inhibitors. *Antimicrobial Agents and Chemotherapy*, **2017**, 61,	5.9	15
116	Molecular and Functional Bases of Selection against a Mutation Bias in an RNA Virus. *Genome Biology and Evolution*, **2017**, 9, 1212-1228	3.9	10
115	Synthesis, biological evaluation and molecular modeling of 2-Hydroxyisoquinoline-1,3-dione analogues as inhibitors of HIV reverse transcriptase associated ribonuclease H and polymerase. *European Journal of Medicinal Chemistry*, **2017**, 133, 85-96	6.8	15
114	3-Hydroxypyrimidine-2,4-Diones as Novel Hepatitis B Virus Antivirals Targeting the Viral Ribonuclease H. *Antimicrobial Agents and Chemotherapy*, **2017**, 61,	5.9	12
113	Design, synthesis and biological evaluations of N-Hydroxy thienopyrimidine-2,4-diones as inhibitors of HIV reverse transcriptase-associated RNase H. *European Journal of Medicinal Chemistry*, **2017**, 141, 149-161	6.8	28
112	A 2-Hydroxyisoquinoline-1,3-Dione Active-Site RNase H Inhibitor Binds in Multiple Modes to HIV-1 Reverse Transcriptase. *Antimicrobial Agents and Chemotherapy*, **2017**, 61,	5.9	11
111	Multiplex single-cell visualization of nucleic acids and protein during HIV infection. *Nature Communications*, **2017**, 8, 1882	17.4	37
110	Structural basis of HIV inhibition by translocation-defective RT inhibitor 4Rethynyl-2-fluoro-2Rdeoxyadenosine (EFdA). *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 9274-9	11.5	53
109	3-Hydroxypyrimidine-2,4-dione-5-N-benzylcarboxamides Potently Inhibit HIV-1 Integrase and RNase H. *Journal of Medicinal Chemistry*, **2016**, 59, 6136-48	8.3	31

108	3-Hydroxypyrimidine-2,4-diones as Selective Active Site Inhibitors of HIV Reverse Transcriptase-Associated RNase H: Design, Synthesis, and Biochemical Evaluations. *Journal of Medicinal Chemistry*, **2016**, 59, 2648-59	8.3	31
107	Factors influencing the efficacy of rilpivirine in HIV-1 subtype C in low- and middle-income countries. *Journal of Antimicrobial Chemotherapy*, **2016**, 71, 367-71	5.1	6
106	Design, Synthesis, and Biological Evaluations of Hydroxypyridonecarboxylic Acids as Inhibitors of HIV Reverse Transcriptase Associated RNase H. *Journal of Medicinal Chemistry*, **2016**, 59, 5051-62	8.3	42
105	Vaginal Microbicide Film Combinations of Two Reverse Transcriptase Inhibitors, EFdA and CSIC, for the Prevention of HIV-1 Sexual Transmission. *Pharmaceutical Research*, **2015**, 32, 2960-72	4.5	34
104	Multifunctionality of a picornavirus polymerase domain: nuclear localization signal and nucleotide recognition. *Journal of Virology*, **2015**, 89, 6848-59	6.6	17
103	Fast hepatitis C virus RNA elimination and NS5A redistribution by NS5A inhibitors studied by a multiplex assay approach. *Antimicrobial Agents and Chemotherapy*, **2015**, 59, 3482-92	5.9	19
102	Oral administration of the nucleoside EFdA (4Rethynyl-2-fluoro-2Rdeoxyadenosine) provides rapid suppression of HIV viremia in humanized mice and favorable pharmacokinetic properties in mice and the rhesus macaque. *Antimicrobial Agents and Chemotherapy*, **2015**, 59, 4190-8	5.9	61
101	Design, synthesis, biochemical, and antiviral evaluations of C6 benzyl and C6 biarylmethyl substituted 2-hydroxylisoquinoline-1,3-diones: dual inhibition against HIV reverse transcriptase-associated RNase H and polymerase with antiviral activities. *Journal of Medicinal Chemistry*, **2015**, 58, 651-64	8.3	82
100	4Rmodified nucleoside analogs: potent inhibitors active against entecavir-resistant hepatitis B virus. *Hepatology*, **2015**, 62, 1024-36	11.2	36
99	STRUCTURAL VIROLOGY. X-ray crystal structures of native HIV-1 capsid protein reveal conformational variability. *Science*, **2015**, 349, 99-103	33.3	156
98	Structural basis of clade-specific HIV-1 neutralization by humanized anti-V3 monoclonal antibody KD-247. *FASEB Journal*, **2015**, 29, 70-80	0.9	1
97	CODAS syndrome is associated with mutations of LONP1, encoding mitochondrial AAA+ Lon protease. *American Journal of Human Genetics*, **2015**, 96, 121-35	11	95
96	Development of a vaginal delivery film containing EFdA, a novel anti-HIV nucleoside reverse transcriptase inhibitor. *International Journal of Pharmaceutics*, **2014**, 461, 203-13	6.5	28
95	Probing the molecular mechanism of action of the HIV-1 reverse transcriptase inhibitor 4Rethynyl-2-fluoro-2Rdeoxyadenosine (EFdA) using pre-steady-state kinetics. *Antiviral Research*, **2014**, 106, 1-4	10.8	14
94	SAMHD1 has differential impact on the efficacies of HIV nucleoside reverse transcriptase inhibitors. *Antimicrobial Agents and Chemotherapy*, **2014**, 58, 4915-9	5.9	21
93	Antiviral drugs specific for coronaviruses in preclinical development. *Current Opinion in Virology*, **2014**, 8, 45-53	7.5	64
92	4REthynyl-2-fluoro-2Rdeoxyadenosine (EFdA) inhibits HIV-1 reverse transcriptase with multiple mechanisms. *Journal of Biological Chemistry*, **2014**, 289, 24533-48	5.4	58
91	In vitro transport characteristics of EFdA, a novel nucleoside reverse transcriptase inhibitor using Caco-2 and MDCKII cell monolayers. *European Journal of Pharmacology*, **2014**, 732, 86-95	5.3	13

90	Evaluation of SSYA10-001 as a replication inhibitor of severe acute respiratory syndrome, mouse hepatitis, and Middle East respiratory syndrome coronaviruses. *Antimicrobial Agents and Chemotherapy*, **2014**, 58, 4894-8	5.9	80
89	Drug resistance in non-B subtype HIV-1: impact of HIV-1 reverse transcriptase inhibitors. *Viruses*, **2014**, 6, 3535-62	6.2	22
88	Preformulation studies of EFdA, a novel nucleoside reverse transcriptase inhibitor for HIV prevention. *Drug Development and Industrial Pharmacy*, **2014**, 40, 1101-11	3.6	12
87	Hypersusceptibility mechanism of Tenofovir-resistant HIV to EFdA. *Retrovirology*, **2013**, 10, 65	3.6	30
86	Effects of substitutions at the 4Rand 2 positions on the bioactivity of 4Rethynyl-2-fluoro-2Rdeoxyadenosine. *Antimicrobial Agents and Chemotherapy*, **2013**, 57, 6254-64	5.9	28
85	Mechanism of resistance to S138A substituted enfuvirtide and its application to peptide design. *International Journal of Biochemistry and Cell Biology*, **2013**, 45, 908-15	5.6	5
84	Repeated exposure to 5D9, an inhibitor of 3D polymerase, effectively limits the replication of foot-and-mouth disease virus in host cells. *Antiviral Research*, **2013**, 98, 380-5	10.8	6
83	The hepatitis B virus ribonuclease H is sensitive to inhibitors of the human immunodeficiency virus ribonuclease H and integrase enzymes. *PLoS Pathogens*, **2013**, 9, e1003125	7.6	85
82	HIV-1 resistance mechanism to an electrostatically constrained peptide fusion inhibitor that is active against T-20-resistant strains. *Antimicrobial Agents and Chemotherapy*, **2013**, 57, 4035-8	5.9	6
81	Evaluation of Combinations of 4REthynyl-2-Fluoro-2RDeoxyadenosine with Clinically Used Antiretroviral Drugs. *Antimicrobial Agents and Chemotherapy*, **2013**, 57, 4554-4558	5.9	16
80	Effect of mutations at position E138 in HIV-1 reverse transcriptase and their interactions with the M184I mutation on defining patterns of resistance to nonnucleoside reverse transcriptase inhibitors rilpivirine and etravirine. *Antimicrobial Agents and Chemotherapy*, **2013**, 57, 3100-9	5.9	46
79	Novel inhibitors of severe acute respiratory syndrome coronavirus entry that act by three distinct mechanisms. *Journal of Virology*, **2013**, 87, 8017-28	6.6	119
78	Restriction fragment mass polymorphism (RFMP) analysis based on MALDI-TOF mass spectrometry for detecting antiretroviral resistance in HIV-1 infected patients. *Clinical Microbiology and Infection*, **2013**, 19, E263-70	9.5	4
77	Structural requirements for RNA degradation by HIV-1 reverse transcriptase. *Nature Structural and Molecular Biology*, **2013**, 20, 1341-2	17.6	4
76	Antiviral therapies: focus on hepatitis B reverse transcriptase. *International Journal of Biochemistry and Cell Biology*, **2012**, 44, 1060-71	5.6	34
75	Inhibitors of HIV-1 Reverse Transcriptase-Associated Ribonuclease H Activity. *Biology*, **2012**, 1, 521-41	4.9	38
74	Structural and inhibition studies of the RNase H function of xenotropic murine leukemia virus-related virus reverse transcriptase. *Antimicrobial Agents and Chemotherapy*, **2012**, 56, 2048-61	5.9	27
73	Mechanism of interaction of human mitochondrial DNA polymerase with the novel nucleoside reverse transcriptase inhibitor 4Rethynyl-2-fluoro-2Rdeoxyadenosine indicates a low potential for host toxicity. *Antimicrobial Agents and Chemotherapy*, **2012**, 56, 1630-4	5.9	21

72	Biochemical mechanism of HIV-1 resistance to rilpivirine. *Journal of Biological Chemistry*, **2012**, 287, 38110-23	5.4	51
71	Severe acute respiratory syndrome coronavirus replication inhibitor that interferes with the nucleic acid unwinding of the viral helicase. *Antimicrobial Agents and Chemotherapy*, **2012**, 56, 4718-28	5.9	72
70	HIV-1 reverse transcriptase (RT) polymorphism 172K suppresses the effect of clinically relevant drug resistance mutations to both nucleoside and non-nucleoside RT inhibitors. *Journal of Biological Chemistry*, **2012**, 287, 29988-99	5.4	8
69	Biochemical, inhibition and inhibitor resistance studies of xenotropic murine leukemia virus-related virus reverse transcriptase. *Nucleic Acids Research*, **2012**, 40, 345-59	20.1	13
68	Response of simian immunodeficiency virus to the novel nucleoside reverse transcriptase inhibitor 4Rethynyl-2-fluoro-2Rdeoxyadenosine in vitro and in vivo. *Antimicrobial Agents and Chemotherapy*, **2012**, 56, 4707-12	5.9	44
67	Mechanism of nucleic acid unwinding by SARS-CoV helicase. *PLoS ONE*, **2012**, 7, e36521	3.7	112
66	K70Q adds high-level tenofovir resistance to "Q151M complex" HIV reverse transcriptase through the enhanced discrimination mechanism. *PLoS ONE*, **2011**, 6, e16242	3.7	28
65	Broad-spectrum aptamer inhibitors of HIV reverse transcriptase closely mimic natural substrates. *Nucleic Acids Research*, **2011**, 39, 8237-47	20.1	36
64	Potent anti-HIV-1 activity of N-HR-derived peptides including a deep pocket-forming region without antagonistic effects on T-20. *Antiviral Chemistry and Chemotherapy*, **2011**, 22, 51-5	3.5	2
63	Hepatitis B Virus genotypic differences map structurally close to NRTI resistance hot spots **2011**, 2, 253-260		2
62	Structural basis of HIV-1 resistance to AZT by excision. *Nature Structural and Molecular Biology*, **2010**, 17, 1202-9	17.6	97
61	Resistance profiles of novel electrostatically constrained HIV-1 fusion inhibitors. *Journal of Biological Chemistry*, **2010**, 285, 39471-80	5.4	34
60	Divergent evolution in reverse transcriptase (RT) of HIV-1 group O and M lineages: impact on structure, fitness, and sensitivity to nonnucleoside RT inhibitors. *Journal of Virology*, **2010**, 84, 9817-30	6.6	22
59	The N348I mutation at the connection subdomain of HIV-1 reverse transcriptase decreases binding to nevirapine. *Journal of Biological Chemistry*, **2010**, 285, 38700-9	5.4	39
58	Structural Aspects of Drug Resistance and Inhibition of HIV-1 Reverse Transcriptase. *Viruses*, **2010**, 2, 606-638	6.2	60
57	Rev-derived peptides inhibit HIV-1 replication by antagonism of Rev and a co-receptor, CXCR4. *International Journal of Biochemistry and Cell Biology*, **2010**, 42, 1482-8	5.6	4
56	The mutation T477A in HIV-1 reverse transcriptase (RT) restores normal proteolytic processing of RT in virus with Gag-Pol mutated in the p51-RNH cleavage site. *Retrovirology*, **2010**, 7, 6	3.6	11
55	Inhibitors of foot and mouth disease virus targeting a novel pocket of the RNA-dependent RNA polymerase. *PLoS ONE*, **2010**, 5, e15049	3.7	20

54	SC29EK, a peptide fusion inhibitor with enhanced alpha-helicity, inhibits replication of human immunodeficiency virus type 1 mutants resistant to enfuvirtide. *Antimicrobial Agents and Chemotherapy*, **2009**, 53, 1013-8	5.9	76
53	Design of peptide-based inhibitors for human immunodeficiency virus type 1 strains resistant to T-20. *Journal of Biological Chemistry*, **2009**, 284, 4914-20	5.4	37
52	Mechanism of inhibition of HIV-1 reverse transcriptase by 4REthynyl-2-fluoro-2Rdeoxyadenosine triphosphate, a translocation-defective reverse transcriptase inhibitor. *Journal of Biological Chemistry*, **2009**, 284, 35681-91	5.4	104
51	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, 35092-100	5.4	72
50	Clinical relevance of substitutions in the connection subdomain and RNase H domain of HIV-1 reverse transcriptase from a cohort of antiretroviral treatment-naïve patients. *Antiviral Research*, **2009**, 82, 115-21	10.8	34
49	Synthesis of Boranoate, Selenoate, and Thioate Analogs of AZTp(4)A and Ap(4)A. *Tetrahedron*, **2009**, 65, 7915-7920	2.4	9
48	Structure and function of HIV-1 reverse transcriptase: molecular mechanisms of polymerization and inhibition. *Journal of Molecular Biology*, **2009**, 385, 693-713	6.5	355
47	HIV-1 Reverse Transcriptase Inhibitors and Mechanisms of Resistance **2009**, 549-570		
46	2Rdeoxy-4RC-ethynyl-2-halo-adenosines active against drug-resistant human immunodeficiency virus type 1 variants. *International Journal of Biochemistry and Cell Biology*, **2008**, 40, 2410-20	5.6	90
45	The RNA polymerase "switch region" is a target for inhibitors. *Cell*, **2008**, 135, 295-307	56.2	191
44	Biochemistry. RT slides home. *Science*, **2008**, 322, 1059-60	33.3	1
43	Amino acid mutation N348I in the connection subdomain of human immunodeficiency virus type 1 reverse transcriptase confers multiclass resistance to nucleoside and nonnucleoside reverse transcriptase inhibitors. *Journal of Virology*, **2008**, 82, 3261-70	6.6	84
42	Identification and characterization of coumestans as novel HCV NS5B polymerase inhibitors. *Nucleic Acids Research*, **2008**, 36, 1482-96	20.1	84
41	Synthesis of AZTpSpCX2ppSA and AZTpSpCX2ppSAZT: hydrolysis-resistant potential inhibitors of the AZT excision reaction of HIV-1 RT. *Organic Letters*, **2007**, 9, 5243-6	6.2	9
40	3RAzido-3Rdeoxythymidine-(5R)-tetraphospho-(5R)-adenosine, the product of ATP-mediated excision of chain-terminating AZTMP, is a potent chain-terminating substrate for HIV-1 reverse transcriptase. *Biochemistry*, **2007**, 46, 828-36	3.2	27
39	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	6.5	79
38	Combining mutations in HIV-1 reverse transcriptase with mutations in the HIV-1 polypurine tract affects RNase H cleavages involved in PPT utilization. *Virology*, **2006**, 348, 378-88	3.6	17
37	Why do HIV-1 and HIV-2 use different pathways to develop AZT resistance?. *PLoS Pathogens*, **2006**, 2, e10	7.6	55

36	Structural determinants of slippage-mediated mutations by human immunodeficiency virus type 1 reverse transcriptase. *Journal of Biological Chemistry*, **2006**, 281, 7421-8	5.4	19
35	HIV-1 reverse transcriptase structure with RNase H inhibitor dihydroxy benzoyl naphthyl hydrazone bound at a novel site. *ACS Chemical Biology*, **2006**, 1, 702-12	4.9	118
34	Identification of amino acid residues in the human immunodeficiency virus type-1 reverse transcriptase tryptophan-repeat motif that are required for subunit interaction using infectious virions. *Journal of Molecular Biology*, **2005**, 349, 673-84	6.5	29
33	Inhibition of bacterial RNA polymerase by streptolydigin: stabilization of a straight-bridge-helix active-center conformation. *Cell*, **2005**, 122, 541-52	56.2	166
32	Expression and purification of SARS coronavirus proteins using SUMO-fusions. *Protein Expression and Purification*, **2005**, 42, 100-10	2	63
31	Expression, purification, and characterization of SARS coronavirus RNA polymerase. *Virology*, **2005**, 335, 165-76	3.6	89
30	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, 13315-24	6.6	27
29	Subunit-specific analysis of the human immunodeficiency virus type 1 reverse transcriptase in vivo. *Journal of Virology*, **2004**, 78, 7089-96	6.6	20
28	Effects of the Delta67 complex of mutations in human immunodeficiency virus type 1 reverse transcriptase on nucleoside analog excision. *Journal of Virology*, **2004**, 78, 9987-97	6.6	30
27	Structures of HIV-1 RT-DNA complexes before and after incorporation of the anti-AIDS drug tenofovir. *Nature Structural and Molecular Biology*, **2004**, 11, 469-74	17.6	145
26	Taking aim at a moving target: designing drugs to inhibit drug-resistant HIV-1 reverse transcriptases. *Current Opinion in Structural Biology*, **2004**, 14, 716-30	8.1	118
25	HIV-1 Reverse Transcriptase Structure **2004**, 388-392		
24	Designing anti-AIDS drugs targeting the major mechanism of HIV-1 RT resistance to nucleoside analog drugs. *International Journal of Biochemistry and Cell Biology*, **2004**, 36, 1706-15	5.6	39
23	Mutations in the 5Rend of the human immunodeficiency virus type 1 polypurine tract affect RNase H cleavage specificity and virus titer. *Journal of Virology*, **2003**, 77, 11150-7	6.6	20
22	Trapping HIV-1 reverse transcriptase before and after translocation on DNA. *Journal of Biological Chemistry*, **2003**, 278, 16280-8	5.4	66
21	Molecular model of SARS coronavirus polymerase: implications for biochemical functions and drug design. *Nucleic Acids Research*, **2003**, 31, 7117-30	20.1	135
20	Mutation of amino acids in the connection domain of human immunodeficiency virus type 1 reverse transcriptase that contact the template-primer affects RNase H activity. *Journal of Virology*, **2003**, 77, 8548-54	6.6	47
19	Structures of HIV-1 reverse transcriptase with pre- and post-translocation AZTMP-terminated DNA. *EMBO Journal*, **2002**, 21, 6614-24	13	167

18	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, 9143-51	6.6	82
17	The M184V mutation reduces the selective excision of zidovudine 5′-monophosphate (AZTMP) by the reverse transcriptase of human immunodeficiency virus type 1. *Journal of Virology*, **2002**, 76, 3248-56	6.6	81
16	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, 9515-20	11.5	87
15	Crystal structure of HIV-1 reverse transcriptase in complex with a polypurine tract RNA:DNA. *EMBO Journal*, **2001**, 20, 1449-61	13	360
14	YADD mutants of human immunodeficiency virus type 1 and Moloney murine leukemia virus reverse transcriptase are resistant to lamivudine triphosphate (3TCTP) in vitro. *Journal of Virology*, **2001**, 75, 6321-8	6.6	22
13	Selective excision of AZTMP by drug-resistant human immunodeficiency virus reverse transcriptase. *Journal of Virology*, **2001**, 75, 4832-42	6.6	232
12	Molecular modeling and biochemical characterization reveal the mechanism of hepatitis B virus polymerase resistance to lamivudine (3TC) and emtricitabine (FTC). *Journal of Virology*, **2001**, 75, 4771-9	6.6	235
11	Nonnucleoside reverse transcriptase inhibitors are chemical enhancers of dimerization of the HIV type 1 reverse transcriptase. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 7188-93	11.5	101
10	RNase H cleavage of the 5′-end of the human immunodeficiency virus type 1 genome. *Journal of Virology*, **2001**, 75, 11874-80	6.6	7
9	Analysis of mutations at positions 115 and 116 in the dNTP binding site of HIV-1 reverse transcriptase. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 3056-61	11.5	57
8	The role of steric hindrance in 3TC resistance of human immunodeficiency virus type-1 reverse transcriptase. *Journal of Molecular Biology*, **2000**, 300, 403-18	6.5	116
7	Interactions of conformationally biased north and south 2′-fluoro-2′,3′-dideoxynucleoside 5′-triphosphates with the active site of HIV-1 reverse transcriptase. *Biochemistry*, **2000**, 39, 11205-15	3.2	25
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5	Touching the heart of HIV-1 drug resistance: the fingers close down on the dNTP at the polymerase active site. *Chemistry and Biology*, **1999**, 6, R137-46		98
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