Karen Anderson

List of Publications by Citations

97 papers	3,207 citations	29 h-index	54 g-index
132 ext. papers	3,619 ext. citations	5.7 avg, IF	5.2 L-index

#	Paper	IF	Citations
97	Mechanism and fidelity of HIV reverse transcriptase.. *Journal of Biological Chemistry*, **1992**, 267, 25988-25997	5.4	376
96	Mechanism and fidelity of HIV reverse transcriptase. *Journal of Biological Chemistry*, **1992**, 267, 25988-97	5.4	363
95	Serine modulates substrate channeling in tryptophan synthase. A novel intersubunit triggering mechanism. *Journal of Biological Chemistry*, **1991**, 266, 8020-33	5.4	107
94	Computationally-guided optimization of a docking hit to yield catechol diethers as potent anti-HIV agents. *Journal of Medicinal Chemistry*, **2011**, 54, 8582-91	8.3	103
93	Current perspectives on HIV-1 antiretroviral drug resistance. *Viruses*, **2014**, 6, 4095-139	6.2	101
92	Insights into the molecular mechanism of mitochondrial toxicity by AIDS drugs. *Journal of Biological Chemistry*, **2001**, 276, 23832-7	5.4	101
91	Identification of 14 Known Drugs as Inhibitors of the Main Protease of SARS-CoV-2. *ACS Medicinal Chemistry Letters*, **2020**, 11, 2526-2533	4.3	98
90	Intracellular transport of class I MHC molecules in antigen processing mutant cell lines. *Journal of Immunology*, **1993**, 151, 3407-19	5.3	80
89	Data publication with the structural biology data grid supports live analysis. *Nature Communications* , **2016**, 7, 10882	17.4	78
88	Mechanistic studies comparing the incorporation of (+) and (-) isomers of 3TCTP by HIV-1 reverse transcriptase. *Biochemistry*, **1999**, 38, 55-63	3.2	77
87	HIV-1 reverse transcriptase resistance to nonnucleoside inhibitors. *Biochemistry*, **1996**, 35, 1054-63	3.2	73
86	Potent Noncovalent Inhibitors of the Main Protease of SARS-CoV-2 from Molecular Sculpting of the Drug Perampanel Guided by Free Energy Perturbation Calculations. *ACS Central Science*, **2021**, 7, 467-475	16.8	70
85	Relationship between antiviral activity and host toxicity: comparison of the incorporation efficiencies of 2′,3′-dideoxy-5-fluoro-3′-thiacytidine-triphosphate analogs by human immunodeficiency virus type 1 reverse transcriptase and human mitochondrial DNA polymerase. *Antimicrobial Agents and Chemotherapy*, **2004**, 48, 1390-6	5.9	66
84	Picomolar inhibitors of HIV reverse transcriptase featuring bicyclic replacement of a cyanovinylphenyl group. *Journal of the American Chemical Society*, **2013**, 135, 16705-13	16.4	64
83	Mechanistic studies show that (-)-FTC-TP is a better inhibitor of HIV-1 reverse transcriptase than 3TC-TP. *FASEB Journal*, **1999**, 13, 1511-7	0.9	62
82	RNA dependent DNA replication fidelity of HIV-1 reverse transcriptase: evidence of discrimination between DNA and RNA substrates. *Biochemistry*, **1997**, 36, 14056-63	3.2	60
81	Efficient discovery of potent anti-HIV agents targeting the Tyr181Cys variant of HIV reverse transcriptase. *Journal of the American Chemical Society*, **2011**, 133, 15686-96	16.4	57

80	Substrate channeling and domain-domain interactions in bifunctional thymidylate synthase-dihydrofolate reductase. *Biochemistry*, **1998**, 37, 12195-205	3.2	56
79	APOBEC-induced mutations and their cancer effect size in head and neck squamous cell carcinoma. *Oncogene*, **2019**, 38, 3475-3487	9.2	44
78	Illuminating the molecular mechanisms of tyrosine kinase inhibitor resistance for the FGFR1 gatekeeper mutation: the AchillesVheel of targeted therapy. *ACS Chemical Biology*, **2015**, 10, 1319-29	4.9	43
77	Structure-based evaluation of non-nucleoside inhibitors with improved potency and solubility that target HIV reverse transcriptase variants. *Journal of Medicinal Chemistry*, **2015**, 58, 2737-45	8.3	42
76	Surface point mutations that significantly alter the structure and stability of a protein\ denatured state. *Protein Science*, **1996**, 5, 2009-19	6.3	42
75	Crystal structures of HIV-1 reverse transcriptase with picomolar inhibitors reveal key interactions for drug design. *Journal of the American Chemical Society*, **2012**, 134, 19501-3	16.4	41
74	Crystallographic studies of phosphonate-based alpha-reaction transition-state analogues complexed to tryptophan synthase. *Biochemistry*, **1999**, 38, 12665-74	3.2	41
73	Intersubunit communication in tryptophan synthase by carbon-13 and fluorine-19 REDOR NMR. *Biochemistry*, **1996**, 35, 3328-34	3.2	39
72	A role for calnexin (IP90) in the assembly of class II MHC molecules. *EMBO Journal*, **1994**, 13, 675-82	13	36
71	Mechanism of inhibition of the human immunodeficiency virus type 1 reverse transcriptase by d4TTP: an equivalent incorporation efficiency relative to the natural substrate dTTP. *Antimicrobial Agents and Chemotherapy*, **2000**, 44, 217-21	5.9	34
70	Picomolar Inhibitors of HIV-1 Reverse Transcriptase: Design and Crystallography of Naphthyl Phenyl Ethers. *ACS Medicinal Chemistry Letters*, **2014**, 5, 1259-62	4.3	30
69	Extension into the entrance channel of HIV-1 reverse transcriptase--crystallography and enhanced solubility. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 5209-12	2.9	30
68	From in silico hit to long-acting late-stage preclinical candidate to combat HIV-1 infection. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E802-E811	11.5	28
67	Covalent inhibitors for eradication of drug-resistant HIV-1 reverse transcriptase: From design to protein crystallography. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 9725-9730	11.5	28
66	Kinetic characterization of bifunctional thymidylate synthase-dihydrofolate reductase (TS-DHFR) from Cryptosporidium hominis: a paradigm shift for ts activity and channeling behavior. *Journal of Biological Chemistry*, **2004**, 279, 18314-22	5.4	28
65	The FGFR1 V561M Gatekeeper Mutation Drives AZD4547 Resistance through STAT3 Activation and EMT. *Molecular Cancer Research*, **2019**, 17, 532-543	6.6	27
64	Probing the structural and molecular basis of nucleotide selectivity by human mitochondrial DNA polymerase *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 8596-601	11.5	25
63	First three-dimensional structure of Toxoplasma gondii thymidylate synthase-dihydrofolate reductase: insights for catalysis, interdomain interactions, and substrate channeling. *Biochemistry*, **2013**, 52, 7305-7317	3.2	25

62	Perspectives on the molecular mechanism of inhibition and toxicity of nucleoside analogs that target HIV-1 reverse transcriptase. *Biochimica Et Biophysica Acta - Molecular Basis of Disease*, **2002**, 1587, 296-9	6.9	24
61	Design, Conformation, and Crystallography of 2-Naphthyl Phenyl Ethers as Potent Anti-HIV Agents. *ACS Medicinal Chemistry Letters*, **2016**, 7, 1156-1160	4.3	21
60	Insights into DNA substrate selection by APOBEC3G from structural, biochemical, and functional studies. *PLoS ONE*, **2018**, 13, e0195048	3.7	21
59	Structural studies provide clues for analog design of specific inhibitors of Cryptosporidium hominis thymidylate synthase-dihydrofolate reductase. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 4158-61	2.9	21
58	Discovery of potent and selective inhibitors of thymidylate synthase for opportunistic infections. *ACS Medicinal Chemistry Letters*, **2013**, 4, 1148-1151	4.3	21
57	Interactions of enantiomers of 2∀3∀didehydro-2∀3∀dideoxy-fluorocytidine with wild type and M184V mutant HIV-1 reverse transcriptase. *Antiviral Research*, **2002**, 56, 189-205	10.8	21
56	Probing the mechanistic consequences of 5-fluorine substitution on cytidine nucleotide analogue incorporation by HIV-1 reverse transcriptase. *Antiviral Chemistry and Chemotherapy*, **2003**, 14, 115-25	3.5	21
55	Implication of the tRNA initiation step for human immunodeficiency virus type 1 reverse transcriptase in the mechanism of 3∀azido-3∀deoxythymidine (AZT) resistance. *Biochemistry*, **1998**, 37, 14189-94	3.2	21
54	Fluorescence resonance energy transfer studies of DNA polymerase □the critical role of fingers domain movements and a novel non-covalent step during nucleotide selection. *Journal of Biological Chemistry*, **2014**, 289, 16541-50	5.4	20
53	Potent Inhibitors Active against HIV Reverse Transcriptase with K101P, a Mutation Conferring Rilpivirine Resistance. *ACS Medicinal Chemistry Letters*, **2015**, 6, 1075-9	4.3	19
52	Insights into the Molecular Mechanism of Polymerization and Nucleoside Reverse Transcriptase Inhibitor Incorporation by Human PrimPol. *Antimicrobial Agents and Chemotherapy*, **2016**, 60, 561-9	5.9	19
51	Substituted pyrrolo[2,3-d]pyrimidines as Cryptosporidium hominis thymidylate synthase inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 5426-8	2.9	19
50	Illuminating HIV gp120-Ligand Recognition through Computationally-Driven Optimization of Antibody-Recruiting Molecules. *Chemical Science*, **2014**, 5, 2311-2317	9.4	18
49	Novel non-active site inhibitor of Cryptosporidium hominis TS-DHFR identified by a virtual screen. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 418-23	2.9	17
48	The catalytic mechanism of EPSP synthase revisited. *Biochemistry*, **1999**, 38, 7372-9	3.2	17
47	Differential Effects of Tyrosine Kinase Inhibitors on Normal and Oncogenic EGFR Signaling and Downstream Effectors. *Molecular Cancer Research*, **2015**, 13, 765-74	6.6	16
46	MYB fusions and CD markers as tools for authentication and purification of cancer stem cells from salivary adenoid cystic carcinoma. *Stem Cell Research*, **2017**, 21, 160-166	1.6	15
45	Exploring novel strategies for AIDS protozoal pathogens: □helix mimetics targeting a key allosteric protein-protein interaction in TS-DHFR. *MedChemComm*, **2013**, 4,	5	15

44	Nonconserved residues Ala287 and Ser290 of the Cryptosporidium hominis thymidylate synthase domain facilitate its rapid rate of catalysis. *Biochemistry*, **2007**, 46, 8379-91	3.2	15
43	Structural and Preclinical Studies of Computationally Designed Non-Nucleoside Reverse Transcriptase Inhibitors for Treating HIV infection. *Molecular Pharmacology*, **2017**, 91, 383-391	4.3	14
42	Discovery and crystallography of bicyclic arylaminoazines as potent inhibitors of HIV-1 reverse transcriptase. *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 4824-4827	2.9	14
41	Activity and fidelity of human DNA polymerase depend on primer structure. *Journal of Biological Chemistry*, **2018**, 293, 6824-6843	5.4	14
40	Probing the molecular mechanism of action of the HIV-1 reverse transcriptase inhibitor 4Ethynyl-2-fluoro-2deoxyadenosine (EFdA) using pre-steady-state kinetics. *Antiviral Research*, **2014**, 106, 1-4	10.8	14
39	Structure-based evaluation of C5 derivatives in the catechol diether series targeting HIV-1 reverse transcriptase. *Chemical Biology and Drug Design*, **2014**, 83, 541-9	2.9	14
38	Structural and pharmacological evaluation of a novel non-nucleoside reverse transcriptase inhibitor as a promising long acting nanoformulation for treating HIV. *Antiviral Research*, **2019**, 167, 110-116	10.8	13
37	Structural insights into the recognition of nucleoside reverse transcriptase inhibitors by HIV-1 reverse transcriptase: First crystal structures with reverse transcriptase and the active triphosphate forms of lamivudine and emtricitabine. *Protein Science*, **2019**, 28, 1664-1675	6.3	13
36	Deoxythioguanosine triphosphate impairs HIV replication: a new mechanism for an old drug. *FASEB Journal*, **2001**, 15, 1902-8	0.9	13
35	Structure-guided design of a perampanel-derived pharmacophore targeting the SARS-CoV-2 main protease. *Structure*, **2021**, 29, 823-833.e5	5.2	12
34	Identification of 14 Known Drugs as Inhibitors of the Main Protease of SARS-CoV-2 **2020**,		11
33	Understanding the molecular mechanism of substrate channeling and domain communication in protozoal bifunctional TS-DHFR. *Protein Engineering, Design and Selection*, **2017**, 30, 253-261	1.9	10
32	A nanotherapy strategy significantly enhances anticryptosporidial activity of an inhibitor of bifunctional thymidylate synthase-dihydrofolate reductase from Cryptosporidium. *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 2065-7	2.9	9
31	A mechanistic and structural investigation of modified derivatives of the diaryltriazine class of NNRTIs targeting HIV-1 reverse transcriptase. *Biochimica Et Biophysica Acta - General Subjects*, **2014**, 1840, 2203-11	4	9
30	Virtual screening reveals allosteric inhibitors of the Toxoplasma gondii thymidylate synthase-dihydrofolate reductase. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 1232-5	2.9	9
29	Explaining an unusually fast parasitic enzyme: folate tail-binding residues dictate substrate positioning and catalysis in Cryptosporidium hominis thymidylate synthase. *Biochemistry*, **2008**, 47, 8902-11	3.2	9
28	Detection of novel enzyme intermediates in PEP-utilizing enzymes. *Archives of Biochemistry and Biophysics*, **2005**, 433, 47-58	4.1	9
27	Mechanistic studies to understand the inhibition of wild type and mutant HIV-1 reverse transcriptase by Carbovir-triphosphate. *Nucleosides, Nucleotides and Nucleic Acids*, **2001**, 20, 1247-50	1.4	9

26	Optimization of Triarylpyridinone Inhibitors of the Main Protease of SARS-CoV-2 to Low-Nanomolar Antiviral Potency. *ACS Medicinal Chemistry Letters*, **2021**, 12, 1325-1332	4.3	7
25	Structure-Guided Identification of DNMT3B Inhibitors. *ACS Medicinal Chemistry Letters*, **2020**, 11, 971-976	4.3	6
24	A transient kinetic approach to investigate nucleoside inhibitors of mitochondrial DNA polymerase gamma. *Methods*, **2010**, 51, 392-8	4.6	6
23	Novel allosteric covalent inhibitors of bifunctional Cryptosporidium hominis TS-DHFR from parasitic protozoa identified by virtual screening. *Bioorganic and Medicinal Chemistry Letters*, **2019**, 29, 1413-1418	2.9	5
22	Identifying the role of PrimPol in TDF-induced toxicity and implications of its loss of function mutation in an HIV+ patient. *Scientific Reports*, **2020**, 10, 9343	4.9	5
21	The DNA Polymerase Gamma R953C Mutant Is Associated with Antiretroviral Therapy-Induced Mitochondrial Toxicity. *Antimicrobial Agents and Chemotherapy*, **2016**, 60, 5608-11	5.9	5
20	Platination of cysteine by an epidermal growth factor receptor kinase-targeted hybrid agent. *Chemical Communications*, **2018**, 54, 7479-7482	5.8	5
19	Design, Synthesis, and Antiviral Evaluation of Chimeric Inhibitors of HIV Reverse Transcriptase. *ACS Medicinal Chemistry Letters*, **2013**, 4, 1183-8	4.3	5
18	An allosteric site on MKP5 reveals a strategy for small-molecule inhibition. *Science Signaling*, **2020**, 13,	8.8	5
17	Covalent Inhibition of Wild-Type HIV-1 Reverse Transcriptase Using a Fluorosulfate Warhead. *ACS Medicinal Chemistry Letters*, **2021**, 12, 249-255	4.3	5
16	Structure activity relationship towards design of cryptosporidium specific thymidylate synthase inhibitors. *European Journal of Medicinal Chemistry*, **2019**, 183, 111673	6.8	4
15	Molecular and cellular studies evaluating a potent 2-cyanoindolizine catechol diether NNRTI targeting wildtype and Y181C mutant HIV-1 reverse transcriptase. *Bioorganic and Medicinal Chemistry Letters*, **2019**, 29, 2182-2188	2.9	3
14	Structural investigation of 2-naphthyl phenyl ether inhibitors bound to WT and Y181C reverse transcriptase highlights key features of the NNRTI binding site. *Protein Science*, **2020**, 29, 1902-1910	6.3	3
13	Understanding the structural basis of species selective, stereospecific inhibition for Cryptosporidium and human thymidylate synthase. *FEBS Letters*, **2019**, 593, 2069-2078	3.8	2
12	Global Genome Demethylation Causes Transcription-Associated DNA Double Strand Breaks in HPV-Associated Head and Neck Cancer Cells. *Cancers*, **2020**, 13,	6.6	2
11	The molecular basis of inhibition and toxicity of modified cytosine analogues targetting HIV-1 reverse transcriptase. *Antiviral Chemistry and Chemotherapy*, **2001**, 12 Suppl 1, 13-7	3.5	2
10	Targeting the TS dimer interface in bifunctional Cryptosporidium hominis TS-DHFR from parasitic protozoa: Virtual screening identifies novel TS allosteric inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2020**, 30, 127292	2.9	1
9	Crystallization and preliminary X-ray investigation of the recombinant Trypanosoma brucei rhodesiense calmodulin. *Proteins: Structure, Function and Bioinformatics*, **1995**, 21, 354-7	4.2	1

8	Post-Catalytic Complexes with Emtricitabine or Stavudine and HIV-1 Reverse Transcriptase Reveal New Mechanistic Insights for Nucleotide Incorporation and Drug Resistance. *Molecules*, **2020**, 25,	4.8	1
7	DRONE: Direct Tracking of DNA Cytidine Deamination and Other DNA Modifying Activities. *Analytical Chemistry*, **2018**, 90, 11735-11740	7.8	1
6	Structural Studies and Structure Activity Relationships for Novel Computationally Designed Non-nucleoside Inhibitors and Their Interactions With HIV-1 Reverse Transcriptase.. *Frontiers in Molecular Biosciences*, **2022**, 9, 805187	5.6	1
5	Platelet-derived growth factor receptor beta activates Abl2 via direct binding and phosphorylation. *Journal of Biological Chemistry*, **2021**, 297, 100883	5.4	0
4	Yale Cancer Center Precision Medicine Tumor Board: one tumour, multiple targets. *Lancet Oncology, The*, **2018**, 19, 1567-1568	21.7	0
3	Reply to Pandey et al.: Understanding the efficacy of a potential antiretroviral drug candidate in humanized mouse model of HIV infection. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E8114-E8115	11.5	
2	Biochemical and Functional Characterization of the Mutagenic Cytidine Deaminase, APOBEC3B. *FASEB Journal*, **2015**, 29, 573.48	0.9	
1	Human PrimPol: A Novel Mechanism of Antiviral Toxicity. *FASEB Journal*, **2015**, 29, 710.23	0.9	