

# Karen Anderson

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Structural Studies and Structure Activity Relationships for Novel Computationally Designed Non-nucleoside Inhibitors and Their Interactions With HIV-1 Reverse Transcriptase.. <i>Frontiers in Molecular Biosciences</i> , <b>2022</b> , 9, 805187	5.6	1
96	Platelet-derived growth factor receptor beta activates Abl2 via direct binding and phosphorylation. <i>Journal of Biological Chemistry</i> , <b>2021</b> , 297, 100883	5.4	0
95	Covalent Inhibition of Wild-Type HIV-1 Reverse Transcriptase Using a Fluorosulfate Warhead. <i>ACS Medicinal Chemistry Letters</i> , <b>2021</b> , 12, 249-255	4.3	5
94	Potent Noncovalent Inhibitors of the Main Protease of SARS-CoV-2 from Molecular Sculpting of the Drug Perampanel Guided by Free Energy Perturbation Calculations. <i>ACS Central Science</i> , <b>2021</b> , 7, 467-475	16.8	70
93	Optimization of Triarylpyridinone Inhibitors of the Main Protease of SARS-CoV-2 to Low-Nanomolar Antiviral Potency. <i>ACS Medicinal Chemistry Letters</i> , <b>2021</b> , 12, 1325-1332	4.3	7
92	Structure-guided design of a perampanel-derived pharmacophore targeting the SARS-CoV-2 main protease. <i>Structure</i> , <b>2021</b> , 29, 823-833.e5	5.2	12
91	Targeting the TS dimer interface in bifunctional <i>Cryptosporidium hominis</i> TS-DHFR from parasitic protozoa: Virtual screening identifies novel TS allosteric inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2020</b> , 30, 127292	2.9	1
90	Identifying the role of PrimPol in TDF-induced toxicity and implications of its loss of function mutation in an HIV+ patient. <i>Scientific Reports</i> , <b>2020</b> , 10, 9343	4.9	5
89	Structural investigation of 2-naphthyl phenyl ether inhibitors bound to WT and Y181C reverse transcriptase highlights key features of the NNRTI binding site. <i>Protein Science</i> , <b>2020</b> , 29, 1902-1910	6.3	3
88	Structure-Guided Identification of DNMT3B Inhibitors. <i>ACS Medicinal Chemistry Letters</i> , <b>2020</b> , 11, 971-974	4.3	6
87	Global Genome Demethylation Causes Transcription-Associated DNA Double Strand Breaks in HPV-Associated Head and Neck Cancer Cells. <i>Cancers</i> , <b>2020</b> , 13,	6.6	2
86	Identification of 14 Known Drugs as Inhibitors of the Main Protease of SARS-CoV-2 <b>2020</b> ,		11
85	Post-Catalytic Complexes with Emtricitabine or Stavudine and HIV-1 Reverse Transcriptase Reveal New Mechanistic Insights for Nucleotide Incorporation and Drug Resistance. <i>Molecules</i> , <b>2020</b> , 25,	4.8	1
84	Identification of 14 Known Drugs as Inhibitors of the Main Protease of SARS-CoV-2. <i>ACS Medicinal Chemistry Letters</i> , <b>2020</b> , 11, 2526-2533	4.3	98
83	An allosteric site on MKP5 reveals a strategy for small-molecule inhibition. <i>Science Signaling</i> , <b>2020</b> , 13,	8.8	5
82	Understanding the structural basis of species selective, stereospecific inhibition for <i>Cryptosporidium</i> and human thymidylate synthase. <i>FEBS Letters</i> , <b>2019</b> , 593, 2069-2078	3.8	2
81	Molecular and cellular studies evaluating a potent 2-cyanoindolizine catechol diether NNRTI targeting wildtype and Y181C mutant HIV-1 reverse transcriptase. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2019</b> , 29, 2182-2188	2.9	3

80	Structural and pharmacological evaluation of a novel non-nucleoside reverse transcriptase inhibitor as a promising long acting nanoformulation for treating HIV. <i>Antiviral Research</i> , <b>2019</b> , 167, 110-116	10.8	13
79	Novel allosteric covalent inhibitors of bifunctional <i>Cryptosporidium hominis</i> TS-DHFR from parasitic protozoa identified by virtual screening. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2019</b> , 29, 1413-1418 <sup>2-9</sup>		5
78	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. <i>Protein Science</i> , <b>2019</b> , 28, 1664-1675	6.3	13
77	Structure activity relationship towards design of cryptosporidium specific thymidylate synthase inhibitors. <i>European Journal of Medicinal Chemistry</i> , <b>2019</b> , 183, 111673	6.8	4
76	APOBEC-induced mutations and their cancer effect size in head and neck squamous cell carcinoma. <i>Oncogene</i> , <b>2019</b> , 38, 3475-3487	9.2	44
75	The FGFR1 V561M Gatekeeper Mutation Drives AZD4547 Resistance through STAT3 Activation and EMT. <i>Molecular Cancer Research</i> , <b>2019</b> , 17, 532-543	6.6	27
74	From in silico hit to long-acting late-stage preclinical candidate to combat HIV-1 infection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E802-E811	11.5	28
73	Activity and fidelity of human DNA polymerase $\beta$ depend on primer structure. <i>Journal of Biological Chemistry</i> , <b>2018</b> , 293, 6824-6843	5.4	14
72	Reply to Pandey et al.: Understanding the efficacy of a potential antiretroviral drug candidate in humanized mouse model of HIV infection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E8114-E8115	11.5	
71	Platination of cysteine by an epidermal growth factor receptor kinase-targeted hybrid agent. <i>Chemical Communications</i> , <b>2018</b> , 54, 7479-7482	5.8	5
70	Insights into DNA substrate selection by APOBEC3G from structural, biochemical, and functional studies. <i>PLoS ONE</i> , <b>2018</b> , 13, e0195048	3.7	21
69	Yale Cancer Center Precision Medicine Tumor Board: one tumour, multiple targets. <i>Lancet Oncology, The</i> , <b>2018</b> , 19, 1567-1568	21.7	0
68	DRONE: Direct Tracking of DNA Cytidine Deamination and Other DNA Modifying Activities. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 11735-11740	7.8	1
67	Structural and Preclinical Studies of Computationally Designed Non-Nucleoside Reverse Transcriptase Inhibitors for Treating HIV infection. <i>Molecular Pharmacology</i> , <b>2017</b> , 91, 383-391	4.3	14
66	MYB fusions and CD markers as tools for authentication and purification of cancer stem cells from salivary adenoid cystic carcinoma. <i>Stem Cell Research</i> , <b>2017</b> , 21, 160-166	1.6	15
65	Understanding the molecular mechanism of substrate channeling and domain communication in protozoal bifunctional TS-DHFR. <i>Protein Engineering, Design and Selection</i> , <b>2017</b> , 30, 253-261	1.9	10
64	Covalent inhibitors for eradication of drug-resistant HIV-1 reverse transcriptase: From design to protein crystallography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 9725-9730	11.5	28
63	The DNA Polymerase Gamma R953C Mutant Is Associated with Antiretroviral Therapy-Induced Mitochondrial Toxicity. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2016</b> , 60, 5608-11	5.9	5

62	Design, Conformation, and Crystallography of 2-Naphthyl Phenyl Ethers as Potent Anti-HIV Agents. <i>ACS Medicinal Chemistry Letters</i> , <b>2016</b> , 7, 1156-1160	4.3	21
61	Data publication with the structural biology data grid supports live analysis. <i>Nature Communications</i> , <b>2016</b> , 7, 10882	17.4	78
60	Insights into the Molecular Mechanism of Polymerization and Nucleoside Reverse Transcriptase Inhibitor Incorporation by Human PrimPol. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2016</b> , 60, 561-9	5.9	19
59	Differential Effects of Tyrosine Kinase Inhibitors on Normal and Oncogenic EGFR Signaling and Downstream Effectors. <i>Molecular Cancer Research</i> , <b>2015</b> , 13, 765-74	6.6	16
58	Structure-based evaluation of non-nucleoside inhibitors with improved potency and solubility that target HIV reverse transcriptase variants. <i>Journal of Medicinal Chemistry</i> , <b>2015</b> , 58, 2737-45	8.3	42
57	Discovery and crystallography of bicyclic arylaminoazines as potent inhibitors of HIV-1 reverse transcriptase. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2015</b> , 25, 4824-4827	2.9	14
56	Probing the structural and molecular basis of nucleotide selectivity by human mitochondrial DNA polymerase $\gamma$ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 8596-601	11.5	25
55	A nanotherapy strategy significantly enhances anticryptosporidial activity of an inhibitor of bifunctional thymidylate synthase-dihydrofolate reductase from <i>Cryptosporidium</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2015</b> , 25, 2065-7	2.9	9
54	Potent Inhibitors Active against HIV Reverse Transcriptase with K101P, a Mutation Conferring Rilpivirine Resistance. <i>ACS Medicinal Chemistry Letters</i> , <b>2015</b> , 6, 1075-9	4.3	19
53	Illuminating the molecular mechanisms of tyrosine kinase inhibitor resistance for the FGFR1 gatekeeper mutation: the Achilles wheel of targeted therapy. <i>ACS Chemical Biology</i> , <b>2015</b> , 10, 1319-29	4.9	43
52	Biochemical and Functional Characterization of the Mutagenic Cytidine Deaminase, APOBEC3B. <i>FASEB Journal</i> , <b>2015</b> , 29, 573.48	0.9	
51	Human PrimPol: A Novel Mechanism of Antiviral Toxicity. <i>FASEB Journal</i> , <b>2015</b> , 29, 710.23	0.9	
50	Probing the molecular mechanism of action of the HIV-1 reverse transcriptase inhibitor 4'-ethynyl-2-fluoro-2'-deoxyadenosine (EFdA) using pre-steady-state kinetics. <i>Antiviral Research</i> , <b>2014</b> , 106, 1-4	10.8	14
49	Picomolar Inhibitors of HIV-1 Reverse Transcriptase: Design and Crystallography of Naphthyl Phenyl Ethers. <i>ACS Medicinal Chemistry Letters</i> , <b>2014</b> , 5, 1259-62	4.3	30
48	Illuminating HIV gp120-Ligand Recognition through Computationally-Driven Optimization of Antibody-Recruiting Molecules. <i>Chemical Science</i> , <b>2014</b> , 5, 2311-2317	9.4	18
47	Structural studies provide clues for analog design of specific inhibitors of <i>Cryptosporidium hominis</i> thymidylate synthase-dihydrofolate reductase. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2014</b> , 24, 4158-61	2.9	21
46	Structure-based evaluation of C5 derivatives in the catechol diether series targeting HIV-1 reverse transcriptase. <i>Chemical Biology and Drug Design</i> , <b>2014</b> , 83, 541-9	2.9	14
45	A mechanistic and structural investigation of modified derivatives of the diaryltriazine class of NNRTIs targeting HIV-1 reverse transcriptase. <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>2014</b> , 1840, 2203-11	4	9

44	Fluorescence resonance energy transfer studies of DNA polymerase $\beta$ the critical role of fingers domain movements and a novel non-covalent step during nucleotide selection. <i>Journal of Biological Chemistry</i> , <b>2014</b> , 289, 16541-50	5.4	20
43	Current perspectives on HIV-1 antiretroviral drug resistance. <i>Viruses</i> , <b>2014</b> , 6, 4095-139	6.2	101
42	Virtual screening reveals allosteric inhibitors of the <i>Toxoplasma gondii</i> thymidylate synthase-dihydrofolate reductase. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2014</b> , 24, 1232-5	2.9	9
41	Extension into the entrance channel of HIV-1 reverse transcriptase--crystallography and enhanced solubility. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2013</b> , 23, 5209-12	2.9	30
40	Discovery of potent and selective inhibitors of thymidylate synthase for opportunistic infections. <i>ACS Medicinal Chemistry Letters</i> , <b>2013</b> , 4, 1148-1151	4.3	21
39	Design, Synthesis, and Antiviral Evaluation of Chimeric Inhibitors of HIV Reverse Transcriptase. <i>ACS Medicinal Chemistry Letters</i> , <b>2013</b> , 4, 1183-8	4.3	5
38	Picomolar inhibitors of HIV reverse transcriptase featuring bicyclic replacement of a cyanovinylphenyl group. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 16705-13	16.4	64
37	First three-dimensional structure of <i>Toxoplasma gondii</i> thymidylate synthase-dihydrofolate reductase: insights for catalysis, interdomain interactions, and substrate channeling. <i>Biochemistry</i> , <b>2013</b> , 52, 7305-7317	3.2	25
36	Exploring novel strategies for AIDS protozoal pathogens: $\beta$ helix mimetics targeting a key allosteric protein-protein interaction in TS-DHFR. <i>MedChemComm</i> , <b>2013</b> , 4,	5	15
35	Substituted pyrrolo[2,3-d]pyrimidines as <i>Cryptosporidium hominis</i> thymidylate synthase inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2013</b> , 23, 5426-8	2.9	19
34	Crystal structures of HIV-1 reverse transcriptase with picomolar inhibitors reveal key interactions for drug design. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 19501-3	16.4	41
33	Efficient discovery of potent anti-HIV agents targeting the Tyr181Cys variant of HIV reverse transcriptase. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 15686-96	16.4	57
32	Computationally-guided optimization of a docking hit to yield catechol diethers as potent anti-HIV agents. <i>Journal of Medicinal Chemistry</i> , <b>2011</b> , 54, 8582-91	8.3	103
31	A transient kinetic approach to investigate nucleoside inhibitors of mitochondrial DNA polymerase gamma. <i>Methods</i> , <b>2010</b> , 51, 392-8	4.6	6
30	Novel non-active site inhibitor of <i>Cryptosporidium hominis</i> TS-DHFR identified by a virtual screen. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2009</b> , 19, 418-23	2.9	17
29	Explaining an unusually fast parasitic enzyme: folate tail-binding residues dictate substrate positioning and catalysis in <i>Cryptosporidium hominis</i> thymidylate synthase. <i>Biochemistry</i> , <b>2008</b> , 47, 8902-8	3.2	9
28	Nonconserved residues Ala287 and Ser290 of the <i>Cryptosporidium hominis</i> thymidylate synthase domain facilitate its rapid rate of catalysis. <i>Biochemistry</i> , <b>2007</b> , 46, 8379-91	3.2	15
27	Detection of novel enzyme intermediates in PEP-utilizing enzymes. <i>Archives of Biochemistry and Biophysics</i> , <b>2005</b> , 433, 47-58	4.1	9

26	Kinetic characterization of bifunctional thymidylate synthase-dihydrofolate reductase (TS-DHFR) from <i>Cryptosporidium hominis</i> : a paradigm shift for its activity and channeling behavior. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 18314-22	5.4	28
25	Relationship between antiviral activity and host toxicity: comparison of the incorporation efficiencies of 2'-deoxy-5-fluoro-3'-thiacytidine-triphosphate analogs by human immunodeficiency virus type 1 reverse transcriptase and human mitochondrial DNA polymerase. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2004</b> , 48, 1300-6	5.9	66
24	Probing the mechanistic consequences of 5-fluorine substitution on cytidine nucleotide analogue incorporation by HIV-1 reverse transcriptase. <i>Antiviral Chemistry and Chemotherapy</i> , <b>2003</b> , 14, 115-25	3.5	21
23	Interactions of enantiomers of 2'-dehydro-2'-deoxy-fluorocytidine with wild type and M184V mutant HIV-1 reverse transcriptase. <i>Antiviral Research</i> , <b>2002</b> , 56, 189-205	10.8	21
22	Perspectives on the molecular mechanism of inhibition and toxicity of nucleoside analogs that target HIV-1 reverse transcriptase. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , <b>2002</b> , 1587, 296-9	6.9	24
21	Insights into the molecular mechanism of mitochondrial toxicity by AIDS drugs. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 23832-7	5.4	101
20	Mechanistic studies to understand the inhibition of wild type and mutant HIV-1 reverse transcriptase by Carbovir-triphosphate. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , <b>2001</b> , 20, 1247-50	1.4	9
19	Deoxythioguanosine triphosphate impairs HIV replication: a new mechanism for an old drug. <i>FASEB Journal</i> , <b>2001</b> , 15, 1902-8	0.9	13
18	The molecular basis of inhibition and toxicity of modified cytosine analogues targeting HIV-1 reverse transcriptase. <i>Antiviral Chemistry and Chemotherapy</i> , <b>2001</b> , 12 Suppl 1, 13-7	3.5	2
17	Mechanism of inhibition of the human immunodeficiency virus type 1 reverse transcriptase by d4TTP: an equivalent incorporation efficiency relative to the natural substrate dTTP. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2000</b> , 44, 217-21	5.9	34
16	Mechanistic studies show that (-)-FTC-TP is a better inhibitor of HIV-1 reverse transcriptase than 3TC-TP. <i>FASEB Journal</i> , <b>1999</b> , 13, 1511-7	0.9	62
15	The catalytic mechanism of EPSP synthase revisited. <i>Biochemistry</i> , <b>1999</b> , 38, 7372-9	3.2	17
14	Mechanistic studies comparing the incorporation of (+) and (-) isomers of 3TC-TP by HIV-1 reverse transcriptase. <i>Biochemistry</i> , <b>1999</b> , 38, 55-63	3.2	77
13	Crystallographic studies of phosphonate-based alpha-reaction transition-state analogues complexed to tryptophan synthase. <i>Biochemistry</i> , <b>1999</b> , 38, 12665-74	3.2	41
12	Substrate channeling and domain-domain interactions in bifunctional thymidylate synthase-dihydrofolate reductase. <i>Biochemistry</i> , <b>1998</b> , 37, 12195-205	3.2	56
11	Implication of the tRNA initiation step for human immunodeficiency virus type 1 reverse transcriptase in the mechanism of 3'-azido-2'-deoxythymidine (AZT) resistance. <i>Biochemistry</i> , <b>1998</b> , 37, 14189-94	3.2	21
10	RNA dependent DNA replication fidelity of HIV-1 reverse transcriptase: evidence of discrimination between DNA and RNA substrates. <i>Biochemistry</i> , <b>1997</b> , 36, 14056-63	3.2	60
9	HIV-1 reverse transcriptase resistance to nonnucleoside inhibitors. <i>Biochemistry</i> , <b>1996</b> , 35, 1054-63	3.2	73

8	Intersubunit communication in tryptophan synthase by carbon-13 and fluorine-19 REDOR NMR. <i>Biochemistry</i> , <b>1996</b> , 35, 3328-34	3.2	39
7	Surface point mutations that significantly alter the structure and stability of a protein's denatured state. <i>Protein Science</i> , <b>1996</b> , 5, 2009-19	6.3	42
6	Crystallization and preliminary X-ray investigation of the recombinant <i>Trypanosoma brucei</i> rhodesiense calmodulin. <i>Proteins: Structure, Function and Bioinformatics</i> , <b>1995</b> , 21, 354-7	4.2	1
5	A role for calnexin (IP90) in the assembly of class II MHC molecules. <i>EMBO Journal</i> , <b>1994</b> , 13, 675-82	13	36
4	Intracellular transport of class I MHC molecules in antigen processing mutant cell lines. <i>Journal of Immunology</i> , <b>1993</b> , 151, 3407-19	5.3	80
3	Mechanism and fidelity of HIV reverse transcriptase. <i>Journal of Biological Chemistry</i> , <b>1992</b> , 267, 25988-97	5.4	363
2	Mechanism and fidelity of HIV reverse transcriptase.. <i>Journal of Biological Chemistry</i> , <b>1992</b> , 267, 25988-25997	5.4	376
1	Serine modulates substrate channeling in tryptophan synthase. A novel intersubunit triggering mechanism. <i>Journal of Biological Chemistry</i> , <b>1991</b> , 266, 8020-33	5.4	107