Karen Anderson

List of Publications by Year
in descending order

96 papers	4,022 citations	126708 33 h-index	128067 60 g-index
132 all docs	132 docs citations	132 times ranked	4171 citing authors

#	Article	IF	Citations
1	Mechanism and fidelity of HIV reverse transcriptase.. Journal of Biological Chemistry, 1992, 267, 25988-25997.	1.6	446
2	Mechanism and fidelity of HIV reverse transcriptase. Journal of Biological Chemistry, 1992, 267, 25988-97.	1.6	375
3	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.	5.3	182
4	Identification of 14 Known Drugs as Inhibitors of the Main Protease of SARS-CoV-2. ACS Medicinal Chemistry Letters, 2020, 11, 2526-2533.	1.3	176
5	Current Perspectives on HIV-1 Antiretroviral Drug Resistance. Viruses, 2014, 6, 4095-4139.	1.5	129
6	Computationally-Guided Optimization of a Docking Hit to Yield Catechol Diethers as Potent Anti-HIV Agents. Journal of Medicinal Chemistry, 2011, 54, 8582-8591.	2.9	122
7	Insights into the Molecular Mechanism of Mitochondrial Toxicity by AIDS Drugs. Journal of Biological Chemistry, 2001, 276, 23832-23837.	1.6	119
8	Serine modulates substrate channeling in tryptophan synthase. A novel intersubunit triggering mechanism. Journal of Biological Chemistry, 1991, 266, 8020-33.	1.6	114
9	Data publication with the structural biology data grid supports live analysis. Nature Communications, 2016, 7, 10882.	5.8	113
10	Intracellular transport of class I MHC molecules in antigen processing mutant cell lines. Journal of Immunology, 1993, 151, 3407-19.	0.4	83
11	APOBEC-induced mutations and their cancer effect size in head and neck squamous cell carcinoma. Oncogene, 2019, 38, 3475-3487.	2.6	81
12	Mechanistic Studies Comparing the Incorporation of (+) and (â^') Isomers of 3TCTP by HIV-1 Reverse Transcriptaseâ€. Biochemistry, 1999, 38, 55-63.	1.2	78
13	Picomolar Inhibitors of HIV Reverse Transcriptase Featuring Bicyclic Replacement of a Cyanovinylphenyl Group. Journal of the American Chemical Society, 2013, 135, 16705-16713.	6.6	78
14	HIV-1 Reverse Transcriptase Resistance to Nonnucleoside Inhibitorsâ€. Biochemistry, 1996, 35, 1054-1063.	1.2	75
15	Relationship between Antiviral Activity and Host Toxicity: Comparison of the Incorporation Efficiencies of 2â€²,3â€²-Dideoxy-5-Fluoro-3â€²-Thiacytidine-Triphosphate Analogs by Human Immunodeficiency Virus Type 1 Reverse Transcriptase and Human Mitochondrial DNA Polymerase. Antimicrobial Agents and Chemotherapy, 2004, 48, 1300-1306.	1.4	71
16	Mechanistic studies show that (â^')â€FTCâ€TP is a better inhibitor of HIVâ€1 reverse transcriptase than 3TCâ€TP. FASEB Journal, 1999, 13, 1511-1517.	0.2	66
17	RNA Dependent DNA Replication Fidelity of HIV-1 Reverse Transcriptase:Â Evidence of Discrimination between DNA and RNA Substratesâ€. Biochemistry, 1997, 36, 14056-14063.	1.2	65
18	Efficient Discovery of Potent Anti-HIV Agents Targeting the Tyr181Cys Variant of HIV Reverse Transcriptase. Journal of the American Chemical Society, 2011, 133, 15686-15696.	6.6	64

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19	Substrate Channeling and Domainâ^'Domain Interactions in Bifunctional Thymidylate Synthaseâ^'Dihydrofolate Reductaseâ€. Biochemistry, 1998, 37, 12195-12205.	1.2	60
20	Illuminating the Molecular Mechanisms of Tyrosine Kinase Inhibitor Resistance for the FGFR1 Gatekeeper Mutation: The Achillesâ€™ Heel of Targeted Therapy. ACS Chemical Biology, 2015, 10, 1319-1329.	1.6	57
21	Crystal Structures of HIV-1 Reverse Transcriptase with Picomolar Inhibitors Reveal Key Interactions for Drug Design. Journal of the American Chemical Society, 2012, 134, 19501-19503.	6.6	48
22	Structure-Based Evaluation of Non-nucleoside Inhibitors with Improved Potency and Solubility That Target HIV Reverse Transcriptase Variants. Journal of Medicinal Chemistry, 2015, 58, 2737-2745.	2.9	48
23	Crystallographic Studies of Phosphonate-Based Î±-Reaction Transition-State Analogues Complexed to Tryptophan Synthaseâ€,â€¡. Biochemistry, 1999, 38, 12665-12674.	1.2	47
24	Surface point mutations that significantly alter the structure and stability of a protein's denatured state. Protein Science, 1996, 5, 2009-2019.	3.1	46
25	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.	3.3	43
26	Structure-guided design of a perampanel-derived pharmacophore targeting the SARS-CoV-2 main protease. Structure, 2021, 29, 823-833.e5.	1.6	43
27	Intersubunit Communication in Tryptophan Synthase by Carbon-13 and Fluorine-19 REDOR NMRâ€. Biochemistry, 1996, 35, 3328-3334.	1.2	42
28	A role for calnexin (IP90) in the assembly of class II MHC molecules. EMBO Journal, 1994, 13, 675-82.	3.5	42
29	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, 217-221.	1.4	39
30	Picomolar Inhibitors of HIV-1 Reverse Transcriptase: Design and Crystallography of Naphthyl Phenyl Ethers. ACS Medicinal Chemistry Letters, 2014, 5, 1259-1262.	1.3	39
31	Probing the structural and molecular basis of nucleotide selectivity by human mitochondrial DNA polymerase Î³. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8596-8601.	3.3	37
32	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.	1.3	37
33	The FGFR1 V561M Gatekeeper Mutation Drives AZD4547 Resistance through STAT3 Activation and EMT. Molecular Cancer Research, 2019, 17, 532-543.	1.5	35
34	Extension into the entrance channel of HIV-1 reverse transcriptaseâ€"Crystallography and enhanced solubility. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 5209-5212.	1.0	33
35	First Three-Dimensional Structure of Toxoplasma gondii Thymidylate Synthaseâ€“Dihydrofolate Reductase: Insights for Catalysis, Interdomain Interactions, and Substrate Channeling. Biochemistry, 2013, 52, 7305-7317.	1.2	32
36	Kinetic Characterization of Bifunctional Thymidylate Synthase-Dihydrofolate Reductase (TS-DHFR) from Cryptosporidium hominis. Journal of Biological Chemistry, 2004, 279, 18314-18322.	1.6	30

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37	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.	3.3	30
38	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, 296-299.	1.8	29
39	Structural studies provide clues for analog design of specific inhibitors of Cryptosporidium hominis thymidylate synthaseâ€“dihydrofolate reductase. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 4158-4161.	1.0	28
40	Activity and fidelity of human DNA polymerase Î± depend on primer structure. Journal of Biological Chemistry, 2018, 293, 6824-6843.	1.6	28
41	Insights into DNA substrate selection by APOBEC3G from structural, biochemical, and functional studies. PLoS ONE, 2018, 13, e0195048.	1.1	25
42	Interactions of enantiomers of 2â€²,3â€²-didehydro-2â€²,3â€²-dideoxy-fluorocytidine with wild type and M184V mutant HIV-1 reverse transcriptase. Antiviral Research, 2002, 56, 189-205.	1.9	24
43	Insights into the Molecular Mechanism of Polymerization and Nucleoside Reverse Transcriptase Inhibitor Incorporation by Human PrimPol. Antimicrobial Agents and Chemotherapy, 2016, 60, 561-569.	1.4	24
44	Discovery of Potent and Selective Inhibitors of Toxoplasma gondii Thymidylate Synthase for Opportunistic Infections. ACS Medicinal Chemistry Letters, 2013, 4, 1148-1151.	1.3	23
45	Fluorescence Resonance Energy Transfer Studies of DNA Polymerase Î². Journal of Biological Chemistry, 2014, 289, 16541-16550.	1.6	23
46	Implication of the tRNA Initiation Step for Human Immunodeficiency Virus Type 1 Reverse Transcriptase in the Mechanism of 3â€˜-Azido-3â€˜-deoxythymidine (AZT) Resistanceâ€. Biochemistry, 1998, 37, 14189-14194.	1.2	22
47	Probing the Mechanistic Consequences of 5-Fluorine Substitution on Cytidine Nucleotide Analogue Incorporation by HIV-1 Reverse Transcriptase. Antiviral Chemistry and Chemotherapy, 2003, 14, 115-125.	0.3	22
48	Potent Inhibitors Active against HIV Reverse Transcriptase with K101P, a Mutation Conferring Rilpivirine Resistance. ACS Medicinal Chemistry Letters, 2015, 6, 1075-1079.	1.3	22
49	Design, Conformation, and Crystallography of 2-Naphthyl Phenyl Ethers as Potent Anti-HIV Agents. ACS Medicinal Chemistry Letters, 2016, 7, 1156-1160.	1.3	22
50	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.	0.3	22
51	Substituted pyrrolo[2,3-d]pyrimidines as Cryptosporidium hominis thymidylate synthase inhibitors. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 5426-5428.	1.0	21
52	Structureâ€Based Evaluation of C5 Derivatives in the Catechol Diether Series Targeting <scp>HIV</scp>â€1 Reverse Transcriptase. Chemical Biology and Drug Design, 2014, 83, 541-549.	1.5	21
53	Structural insights into the recognition of nucleoside reverse transcriptase inhibitors by HIVâ€1 reverse transcriptase: First crystal structures with reverse transcriptase and the active triphosphate forms of lamivudine and emtricitabine. Protein Science, 2019, 28, 1664-1675.	3.1	20
54	The Catalytic Mechanism of EPSP Synthase Revisited. Biochemistry, 1999, 38, 7372-7379.	1.2	19

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55	Illuminating HIV gp120-ligand recognition through computationally-driven optimization of antibody-recruiting molecules. Chemical Science, 2014, 5, 2311-2317.	3.7	19
56	Discovery and crystallography of bicyclic arylaminoazines as potent inhibitors of HIV-1 reverse transcriptase. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 4824-4827.	1.0	19
57	Novel non-active site inhibitor of Cryptosporidium hominis TS-DHFR identified by a virtual screen. Bioorganic and Medicinal Chemistry Letters, 2009, 19, 418-423.	1.0	18
58	Differential Effects of Tyrosine Kinase Inhibitors on Normal and Oncogenic EGFR Signaling and Downstream Effectors. Molecular Cancer Research, 2015, 13, 765-774.	1.5	17
59	Exploring novel strategies for AIDS protozoal pathogens: Î±-helix mimetics targeting a key allosteric proteinâ€“protein interaction in C. hominis thymidylate synthase-dihydrofolate reductase (TS-DHFR). MedChemComm, 2013, 4, 1247-1256.	3.5	16
60	Probing the molecular mechanism of action of the HIV-1 reverse transcriptase inhibitor 4â€²-ethynyl-2-fluoro-2â€²-deoxyadenosine (EFdA) using pre-steady-state kinetics. Antiviral Research, 2014, 106, 1-4.	1.9	16
61	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.	1.6	16
62	Nonconserved Residues Ala287 and Ser290 of the Cryptosporidium hominis Thymidylate Synthase Domain Facilitate Its Rapid Rate of Catalysis,. Biochemistry, 2007, 46, 8379-8391.	1.2	15
63	Understanding the molecular mechanism of substrate channeling and domain communication in protozoal bifunctional TS-DHFR. Protein Engineering, Design and Selection, 2017, 30, 255-264.	1.0	15
64	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.	1.9	15
65	Structure-Guided Identification of DNMT3B Inhibitors. ACS Medicinal Chemistry Letters, 2020, 11, 971-976.	1.3	15
66	Covalent Inhibition of Wild-Type HIV-1 Reverse Transcriptase Using a Fluorosulfate Warhead. ACS Medicinal Chemistry Letters, 2021, 12, 249-255.	1.3	15
67	Structural and Preclinical Studies of Computationally Designed Non-Nucleoside Reverse Transcriptase Inhibitors for Treating HIV infection. Molecular Pharmacology, 2017, 91, 383-391.	1.0	14
68	Deoxythioguanosine triphosphate impairs HIV replication: a new mechanism for an old drug. FASEB Journal, 2001, 15, 1902-1908.	0.2	13
69	An allosteric site on MKP5 reveals a strategy for small-molecule inhibition. Science Signaling, 2020, 13, eaba3043.	1.6	12
70	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, 1247-1250.	0.4	11
71	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, 2065-2067.	1.0	11
72	Platination of cysteine by an epidermal growth factor receptor kinase-targeted hybrid agent. Chemical Communications, 2018, 54, 7479-7482.	2.2	11

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73	Detection of novel enzyme intermediates in PEP-utilizing enzymes. Archives of Biochemistry and Biophysics, 2005, 433, 47-58.	1.4	10
74	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, 2203-2211.	1.1	10
75	Explaining an Unusually Fast Parasitic Enzyme: Folate Tail-Binding Residues Dictate Substrate Positioning and Catalysis in Cryptosporidium hominis Thymidylate Synthase. Biochemistry, 2008, 47, 8902-8911.	1.2	9
76	Virtual screening reveals allosteric inhibitors of the Toxoplasma gondii thymidylate synthaseâ€“dihydrofolate reductase. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 1232-1235.	1.0	9
77	Design, Synthesis, and Antiviral Evaluation of Chimeric Inhibitors of HIV Reverse Transcriptase. ACS Medicinal Chemistry Letters, 2013, 4, 1183-1188.	1.3	8
78	The DNA Polymerase Gamma R953C Mutant Is Associated with Antiretroviral Therapy-Induced Mitochondrial Toxicity. Antimicrobial Agents and Chemotherapy, 2016, 60, 5608-5611.	1.4	8
79	Structural investigation of <scp>2â€naphthyl</scp> phenyl ether inhibitors bound to <scp>WT</scp> and <scp>Y181C</scp> reverse transcriptase highlights key features of the <scp>NNRTI</scp> binding site. Protein Science, 2020, 29, 1902-1910.	3.1	7
80	Global Genome Demethylation Causes Transcription-Associated DNA Double Strand Breaks in HPV-Associated Head and Neck Cancer Cells. Cancers, 2021, 13, 21.	1.7	7
81	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.	1.6	7
82	A transient kinetic approach to investigate nucleoside inhibitors of mitochondrial DNA polymerase Î³. Methods, 2010, 51, 392-398.	1.9	6
83	DRONE: Direct Tracking of DNA Cytidine Deamination and Other DNA Modifying Activities. Analytical Chemistry, 2018, 90, 11735-11740.	3.2	6
84	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.	1.0	6
85	Structure activity relationship towards design of cryptosporidium specific thymidylate synthase inhibitors. European Journal of Medicinal Chemistry, 2019, 183, 111673.	2.6	5
86	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.	1.0	4
87	Platelet-derived growth factor receptor beta activates Abl2 via direct binding and phosphorylation. Journal of Biological Chemistry, 2021, 297, 100883.	1.6	4
88	Understanding the structural basis of species selective, stereospecific inhibition for Cryptosporidium and human thymidylate synthase. FEBS Letters, 2019, 593, 2069-2078.	1.3	3
89	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, 4868.	1.7	3
90	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.	1.0	2

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91	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.	0.3	2
92	Crystallization and preliminary X-ray investigation of the recombinantTrypanosoma brucei rhodesiense calmodulin. Proteins: Structure, Function and Bioinformatics, 1995, 21, 354-357.	1.5	1
93	Yale Cancer Center Precision Medicine Tumor Board: one tumour, multiple targets. Lancet Oncology, The, 2018, 19, 1567-1568.	5.1	1
94	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.	3.3	0
95	Biochemical and Functional Characterization of the Mutagenic Cytidine Deaminase, APOBEC3B. FASEB Journal, 2015, 29, 573.48.	0.2	0
96	Human PrimPol: A Novel Mechanism of Antiviral Toxicity. FASEB Journal, 2015, 29, 710.23.	0.2	0