

# Dongwei Kang

## List of Publications by Citations

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96  
papers

1,700  
citations

25  
h-index

36  
g-index

103  
ext. papers

2,342  
ext. citations

6.9  
avg, IF

4.9  
L-index

#	Paper	IF	Citations
96	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) membrane (M) protein inhibits type I and III interferon production by targeting RIG-I/MDA-5 signaling. <i>Signal Transduction and Targeted Therapy</i> , <b>2020</b> , 5, 299	21	123
95	Design, Synthesis, and Evaluation of Thiophene[3,2-d]pyrimidine Derivatives as HIV-1 Non-nucleoside Reverse Transcriptase Inhibitors with Significantly Improved Drug Resistance Profiles. <i>Journal of Medicinal Chemistry</i> , <b>2016</b> , 59, 7991-8007	8.3	84
94	Recent applications of click chemistry in drug discovery. <i>Expert Opinion on Drug Discovery</i> , <b>2019</b> , 14, 779-789	7.89	70
93	Structure-Based Optimization of Thiophene[3,2-d]pyrimidine Derivatives as Potent HIV-1 Non-nucleoside Reverse Transcriptase Inhibitors with Improved Potency against Resistance-Associated Variants. <i>Journal of Medicinal Chemistry</i> , <b>2017</b> , 60, 4424-4443	8.3	65
92	Overview of Recent Strategic Advances in Medicinal Chemistry. <i>Journal of Medicinal Chemistry</i> , <b>2019</b> , 62, 9375-9414	8.3	53
91	"Old friends in new guise": exploiting privileged structures for scaffold re-evolution/refining. <i>Combinatorial Chemistry and High Throughput Screening</i> , <b>2014</b> , 17, 536-53	1.3	50
90	Exploiting the Tolerant Region I of the Non-Nucleoside Reverse Transcriptase Inhibitor (NNRTI) Binding Pocket: Discovery of Potent Diarylpyrimidine-Typed HIV-1 NNRTIs against Wild-Type and E138K Mutant Virus with Significantly Improved Water Solubility and Favorable Safety Profiles. <i>Journal of Medicinal Chemistry</i> , <b>2019</b> , 62, 2083-2098	8.3	47
89	New techniques and strategies in drug discovery. <i>Chinese Chemical Letters</i> , <b>2020</b> , 31, 1695-1708	8.1	45
88	Targeting the entrance channel of NNIBP: Discovery of diarylnicotinamide 1,4-disubstituted 1,2,3-triazoles as novel HIV-1 NNRTIs with high potency against wild-type and E138K mutant virus. <i>European Journal of Medicinal Chemistry</i> , <b>2018</b> , 151, 339-350	6.8	44
87	Identification of Dihydrofuro[3,4-d]pyrimidine Derivatives as Novel HIV-1 Non-Nucleoside Reverse Transcriptase Inhibitors with Promising Antiviral Activities and Desirable Physicochemical Properties. <i>Journal of Medicinal Chemistry</i> , <b>2019</b> , 62, 1484-1501	8.3	41
86	Structural basis for potent and broad inhibition of HIV-1 RT by thiophene[3,2-]pyrimidine non-nucleoside inhibitors. <i>ELife</i> , <b>2018</b> , 7,	8.9	41
85	Inhibitors of Influenza Virus Polymerase Acidic (PA) Endonuclease: Contemporary Developments and Perspectives. <i>Journal of Medicinal Chemistry</i> , <b>2017</b> , 60, 3533-3551	8.3	40
84	Design, synthesis and biological evaluation of tacrine-1,2,3-triazole derivatives as potent cholinesterase inhibitors. <i>MedChemComm</i> , <b>2018</b> , 9, 149-159	5	39
83	Discovery of phenylalanine derivatives as potent HIV-1 capsid inhibitors from click chemistry-based compound library. <i>European Journal of Medicinal Chemistry</i> , <b>2018</b> , 158, 478-492	6.8	36
82	Optimization of N-Substituted Oseltamivir Derivatives as Potent Inhibitors of Group-1 and -2 Influenza A Neuraminidases, Including a Drug-Resistant Variant. <i>Journal of Medicinal Chemistry</i> , <b>2018</b> , 61, 6379-6397	8.3	32
81	Medicinal chemistry strategies for discovering antivirals effective against drug-resistant viruses. <i>Chemical Society Reviews</i> , <b>2021</b> , 50, 4514-4540	58.5	30
80	Discovery and characterization of novel imidazopyridine derivative CHEQ-2 as a potent CDC25 inhibitor and promising anticancer drug candidate. <i>European Journal of Medicinal Chemistry</i> , <b>2014</b> , 82, 293-307	6.8	29

79	Targeting the hydrophobic channel of NNIBP: discovery of novel 1,2,3-triazole-derived diarylpyrimidines as novel HIV-1 NNRTIs with high potency against wild-type and K103N mutant virus. <i>Organic and Biomolecular Chemistry</i> , <b>2019</b> , 17, 3202-3217	3.9	28
78	Recent developments in the medicinal chemistry of single boron atom-containing compounds. <i>Acta Pharmaceutica Sinica B</i> , <b>2021</b> , 11, 3035-3059	15.5	28
77	Current insights into anti-HIV drug discovery and development: a review of recent patent literature (2014-2017). <i>Expert Opinion on Therapeutic Patents</i> , <b>2018</b> , 28, 299-316	6.8	27
76	Design, synthesis and anti-HIV evaluation of novel diarylpyridine derivatives targeting the entrance channel of NNRTI binding pocket. <i>European Journal of Medicinal Chemistry</i> , <b>2016</b> , 109, 294-304	6.8	26
75	Discovery of non-peptide small molecular CXCR4 antagonists as anti-HIV agents: Recent advances and future opportunities. <i>European Journal of Medicinal Chemistry</i> , <b>2016</b> , 114, 65-78	6.8	26
74	Exploring the hydrophobic channel of NNIBP leads to the discovery of novel piperidine-substituted thiophene[3,2-]pyrimidine derivatives as potent HIV-1 NNRTIs. <i>Acta Pharmaceutica Sinica B</i> , <b>2020</b> , 10, 878-894	15.5	26
73	Discovery of Novel Diarylpyrimidine Derivatives as Potent HIV-1 NNRTIs Targeting the "NNRTI Adjacent" Binding Site. <i>ACS Medicinal Chemistry Letters</i> , <b>2018</b> , 9, 334-338	4.3	25
72	First discovery of novel 3-hydroxy-quinazoline-2,4(1H,3H)-diones as specific anti-vaccinia and adenovirus agents via a privileged scaffold refining approach. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2016</b> , 26, 5182-5186	2.9	25
71	"Old Dogs with New Tricks": exploiting alternative mechanisms of action and new drug design strategies for clinically validated HIV targets. <i>Molecular BioSystems</i> , <b>2014</b> , 10, 1998-2022		24
70	Discovery of novel 1,4-disubstituted 1,2,3-triazole phenylalanine derivatives as HIV-1 capsid inhibitors. <i>RSC Advances</i> , <b>2019</b> , 9, 28961-28986	3.7	24
69	Contemporary medicinal-chemistry strategies for the discovery of selective butyrylcholinesterase inhibitors. <i>Drug Discovery Today</i> , <b>2019</b> , 24, 629-635	8.8	24
68	Structure-Based Optimization of N-Substituted Oseltamivir Derivatives as Potent Anti-Influenza A Virus Agents with Significantly Improved Potency against Oseltamivir-Resistant N1-H274Y Variant. <i>Journal of Medicinal Chemistry</i> , <b>2018</b> , 61, 9976-9999	8.3	24
67	Discovery of Thiophene[3,2-]pyrimidine Derivatives as Potent HIV-1 NNRTIs Targeting the Tolerant Region I of NNIBP. <i>ACS Medicinal Chemistry Letters</i> , <b>2017</b> , 8, 1188-1193	4.3	21
66	Further Exploring Solvent-Exposed Tolerant Regions of Allosteric Binding Pocket for Novel HIV-1 NNRTIs Discovery. <i>ACS Medicinal Chemistry Letters</i> , <b>2018</b> , 9, 370-375	4.3	21
65	Discovery and Characterization of Fluorine-Substituted Diarylpyrimidine Derivatives as Novel HIV-1 NNRTIs with Highly Improved Resistance Profiles and Low Activity for the hERG Ion Channel. <i>Journal of Medicinal Chemistry</i> , <b>2020</b> , 63, 1298-1312	8.3	20
64	Structure-Based Bioisosterism Yields HIV-1 NNRTIs with Improved Drug-Resistance Profiles and Favorable Pharmacokinetic Properties. <i>Journal of Medicinal Chemistry</i> , <b>2020</b> , 63, 4837-4848	8.3	20
63	Novel urate transporter 1 (URAT1) inhibitors: a review of recent patent literature (2016-2019). <i>Expert Opinion on Therapeutic Patents</i> , <b>2019</b> , 29, 871-879	6.8	20
62	Novel diarylpyrimidines and diaryltriazines as potent HIV-1 NNRTIs with dramatically improved solubility: a patent evaluation of US20140378443A1. <i>Expert Opinion on Therapeutic Patents</i> , <b>2016</b> , 26, 281-9	6.8	19

61	Discovery of novel diarylpyrimidines as potent HIV-1 NNRTIs by investigating the chemical space of a less explored "hydrophobic channel". <i>Organic and Biomolecular Chemistry</i> , <b>2018</b> , 16, 1014-1028	3.9	18
60	Design, Synthesis, and Mechanism Study of Benzenesulfonamide-Containing Phenylalanine Derivatives as Novel HIV-1 Capsid Inhibitors with Improved Antiviral Activities. <i>Journal of Medicinal Chemistry</i> , <b>2020</b> , 63, 4790-4810	8.3	18
59	Discovery of uracil-bearing DAPYs derivatives as novel HIV-1 NNRTIs via crystallographic overlay-based molecular hybridization. <i>European Journal of Medicinal Chemistry</i> , <b>2017</b> , 130, 209-222	6.8	17
58	Novel fused pyrimidine and isoquinoline derivatives as potent HIV-1 NNRTIs: a patent evaluation of WO2016105532A1, WO2016105534A1 and WO2016105564A1. <i>Expert Opinion on Therapeutic Patents</i> , <b>2017</b> , 27, 383-391	6.8	16
57	Molecular design opportunities presented by solvent-exposed regions of target proteins. <i>Medicinal Research Reviews</i> , <b>2019</b> , 39, 2194-2238	14.4	16
56	Design, synthesis and evaluation of novel HIV-1 NNRTIs with dual structural conformations targeting the entrance channel of the NNRTI binding pocket. <i>European Journal of Medicinal Chemistry</i> , <b>2016</b> , 115, 53-62	6.8	16
55	Discovery of piperidine-substituted thiazolo[5,4-d]pyrimidine derivatives as potent and orally bioavailable HIV-1 non-nucleoside reverse transcriptase inhibitors. <i>Communications Chemistry</i> , <b>2019</b> , 2, 2, 1-12	6.3	15
54	Efficient drug discovery by rational lead hybridization based on crystallographic overlay. <i>Drug Discovery Today</i> , <b>2019</b> , 24, 805-813	8.8	15
53	Synthesis and Preliminary Antiviral Activities of Piperidine-substituted Purines against HIV and Influenza A/H1N1 Infections. <i>Chemical Biology and Drug Design</i> , <b>2015</b> , 86, 568-77	2.9	14
52	Synthesis and Biological Evaluation of a Series of 2-((1-substituted-1H-1,2,3-triazol-4-yl)methylthio)-6-(naphthalen-1-ylmethyl)pyrimidin-4(3H)-one As Potential HIV-1 Inhibitors. <i>Chemical Biology and Drug Design</i> , <b>2015</b> , 86, 614-8	2.9	13
51	Design, synthesis and biological evaluation of novel acetamide-substituted doravirine and its prodrugs as potent HIV-1 NNRTIs. <i>Bioorganic and Medicinal Chemistry</i> , <b>2019</b> , 27, 447-456	3.4	12
50	Identification of highly potent and selective Cdc25 protein phosphatases inhibitors from miniaturization click-chemistry-based combinatorial libraries. <i>European Journal of Medicinal Chemistry</i> , <b>2019</b> , 183, 111696	6.8	11
49	In situ click chemistry-based rapid discovery of novel HIV-1 NNRTIs by exploiting the hydrophobic channel and tolerant regions of NNIBP. <i>European Journal of Medicinal Chemistry</i> , <b>2020</b> , 193, 112237	6.8	11
48	Design, synthesis and anti-HIV evaluation of novel diarylpyridine derivatives as potent HIV-1 NNRTIs. <i>European Journal of Medicinal Chemistry</i> , <b>2017</b> , 140, 383-391	6.8	11
47	2,4,5-Trisubstituted Pyrimidines as Potent HIV-1 NNRTIs: Rational Design, Synthesis, Activity Evaluation, and Crystallographic Studies. <i>Journal of Medicinal Chemistry</i> , <b>2021</b> , 64, 4239-4256	8.3	11
46	Structure-Activity Relationship Exploration of NNIBP Tolerant Region I Leads to Potent HIV-1 NNRTIs. <i>ACS Infectious Diseases</i> , <b>2020</b> , 6, 2225-2234	5.5	8
45	First discovery of a potential carbonate prodrug of NNRTI drug candidate RDEA427 with submicromolar inhibitory activity against HIV-1 K103N/Y181C double mutant strain. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2018</b> , 28, 1348-1351	2.9	8
44	Design, synthesis, and antiviral evaluation of novel hydrazone-substituted thiophene[3,2-d]pyrimidine derivatives as potent human immunodeficiency virus-1 inhibitors. <i>Chemical Biology and Drug Design</i> , <b>2018</b> , 92, 2009-2021	2.9	8

43	The development of an effective synthetic route of lesinurad (RDEA594). <i>Chemistry Central Journal</i> , <b>2017</b> , 11, 86		8
42	Novel Human Urate Transporter 1 Inhibitors as Hypouricemic Drug Candidates with Favorable Druggability. <i>Journal of Medicinal Chemistry</i> , <b>2020</b> , 63, 10829-10854	8.3	8
41	Discovery of potent HIV-1 non-nucleoside reverse transcriptase inhibitors by exploring the structure-activity relationship of solvent-exposed regions I. <i>Chemical Biology and Drug Design</i> , <b>2019</b> , 93, 430-437	2.9	8
40	Resurrecting the Condemned: Identification of N-Benzoxaborole Benzofuran GSK8175 as a Clinical Candidate with Reduced Metabolic Liability. <i>Journal of Medicinal Chemistry</i> , <b>2019</b> , 62, 3251-3253	8.3	7
39	The discovery of novel diarylpyri(mi)dine derivatives with high level activity against a wide variety of HIV-1 strains as well as against HIV-2. <i>Bioorganic and Medicinal Chemistry</i> , <b>2018</b> , 26, 2051-2060	3.4	7
38	Discovery of novel indolylarylsulfones as potent HIV-1 NNRTIs via structure-guided scaffold morphing. <i>European Journal of Medicinal Chemistry</i> , <b>2019</b> , 182, 111619	6.8	7
37	Discovery of novel pyridazinylthioacetamides as potent HIV-1 NNRTIs using a structure-based bioisosterism approach. <i>MedChemComm</i> , <b>2013</b> , 4, 810	5	7
36	Arylazolyl(azinyl)thioacetanilides. Part 20: Discovery of novel purinylthioacetanilides derivatives as potent HIV-1 NNRTIs via a structure-based bioisosterism approach. <i>Bioorganic and Medicinal Chemistry</i> , <b>2016</b> , 24, 4424-4433	3.4	7
35	Punicalagin is a neuraminidase inhibitor of influenza viruses. <i>Journal of Medical Virology</i> , <b>2021</b> , 93, 3465-3472	4.7	7
34	Contemporary medicinal-chemistry strategies for discovery of blood coagulation factor Xa inhibitors. <i>Expert Opinion on Drug Discovery</i> , <b>2019</b> , 14, 915-931	6.2	6
33	Fragment-based approaches to anti-HIV drug discovery: state of the art and future opportunities. <i>Expert Opinion on Drug Discovery</i> , <b>2015</b> , 10, 1271-81	6.2	6
32	Novel indolylarylsulfone derivatives as covalent HIV-1 reverse transcriptase inhibitors specifically targeting the drug-resistant mutant Y181C. <i>Bioorganic and Medicinal Chemistry</i> , <b>2021</b> , 30, 115927	3.4	6
31	Contemporary Medicinal Chemistry Strategies for the Discovery and Development of Novel HIV-1 Non-nucleoside Reverse Transcriptase Inhibitors.. <i>Journal of Medicinal Chemistry</i> , <b>2022</b> ,	8.3	6
30	Discovery of novel anti-influenza agents via contemporary medicinal chemistry strategies (2014-2018 update). <i>Future Medicinal Chemistry</i> , <b>2019</b> , 11, 375-378	4.1	5
29	Novel diaryltriazines with a picolinonitrile moiety as potent HIV-1 RT inhibitors: a patent evaluation of WO2016059647(A2). <i>Expert Opinion on Therapeutic Patents</i> , <b>2017</b> , 27, 9-15	6.8	5
28	Design, synthesis, and biological evaluation of piperidinyl-substituted [1,2,4]triazolo[1,5-a]pyrimidine derivatives as potential anti-HIV-1 agents with reduced cytotoxicity. <i>Chemical Biology and Drug Design</i> , <b>2021</b> , 97, 67-76	2.9	5
27	Design, synthesis, and evaluation of "dual-site"-binding diarylpyrimidines targeting both NNIBP and the NNRTI adjacent site of the HIV-1 reverse transcriptase. <i>European Journal of Medicinal Chemistry</i> , <b>2021</b> , 211, 113063	6.8	5
26	Medicinal chemistry strategies towards the development of effective SARS-CoV-2 inhibitors. <i>Acta Pharmaceutica Sinica B</i> , <b>2021</b> ,	15.5	5

25	The development of an effective synthetic route of rilpivirine. <i>BMC Chemistry</i> , <b>2021</b> , 15, 22	3.7	4
24	Exploiting the tolerant region I of the non-nucleoside reverse transcriptase inhibitor (NNRTI) binding pocket. Part 2: Discovery of diarylpyrimidine derivatives as potent HIV-1 NNRTIs with high Fsp values and favorable drug-like properties. <i>European Journal of Medicinal Chemistry</i> , <b>2021</b> , 213, 113051	6.8	4
23	Boronic acid-containing diarylpyrimidine derivatives as novel HIV-1 NNRTIs: Design, synthesis and biological evaluation. <i>Chinese Chemical Letters</i> , <b>2021</b> ,	8.1	4
22	Design, synthesis, and mechanism study of dimerized phenylalanine derivatives as novel HIV-1 capsid inhibitors. <i>European Journal of Medicinal Chemistry</i> , <b>2021</b> , 226, 113848	6.8	4
21	An improved synthesis approach of the HIV-1 inhibitor RDEA427, a pyrrolo[2,3-d]pyrimidine derivative. <i>Arkivoc</i> , <b>2017</b> , 2016, 45-51	0.9	3
20	Targeting dual tolerant regions of binding pocket: Discovery of novel morpholine-substituted diarylpyrimidines as potent HIV-1 NNRTIs with significantly improved water solubility. <i>European Journal of Medicinal Chemistry</i> , <b>2020</b> , 206, 112811	6.8	3
19	Discovery, optimization, and target identification of novel coumarin derivatives as HIV-1 reverse transcriptase-associated ribonuclease H inhibitors. <i>European Journal of Medicinal Chemistry</i> , <b>2021</b> , 225, 113769	6.8	3
18	Indolylarylsulfones bearing phenylboronic acid and phenylboronate ester functionalities as potent HIV-1 non-nucleoside reverse transcriptase inhibitors. <i>Bioorganic and Medicinal Chemistry</i> , <b>2021</b> , 53, 116531	3.4	2
17	Identification of novel potent HIV-1 inhibitors by exploiting the tolerant regions of the NNRTIs binding pocket. <i>European Journal of Medicinal Chemistry</i> , <b>2021</b> , 214, 113204	6.8	2
16	Design, synthesis, and biological evaluation of novel 5-Alkyl-6-Adamantylmethylpyrimidin-4(3H)-ones as HIV-1 non-nucleoside reverse-transcriptase inhibitors. <i>Chemical Biology and Drug Design</i> , <b>2016</b> , 88, 380-5	2.9	2
15	Discovery of Novel Dihydrothiopyrano[4,3-]pyrimidine Derivatives as Potent HIV-1 NNRTIs with Significantly Reduced hERG Inhibitory Activity and Improved Resistance Profiles. <i>Journal of Medicinal Chemistry</i> , <b>2021</b> , 64, 13658-13675	8.3	2
14	Design, synthesis, and mechanistic investigations of phenylalanine derivatives containing a benzothiazole moiety as HIV-1 capsid inhibitors with improved metabolic stability. <i>European Journal of Medicinal Chemistry</i> , <b>2022</b> , 227, 113903	6.8	1
13	Discovery and optimizing polycyclic pyridone compounds as anti-HBV agents. <i>Expert Opinion on Therapeutic Patents</i> , <b>2020</b> , 30, 715-721	6.8	1
12	SARS-CoV-2 Entry inhibitors targeting virus-ACE2 or virus-TMPRSS2 interactions. <i>Current Medicinal Chemistry</i> , <b>2021</b> ,	4.3	1
11	Exploiting the hydrophobic channel of the NNIBP: Discovery of novel diarylpyrimidines as HIV-1 NNRTIs against wild-type and K103N mutant viruses. <i>Bioorganic and Medicinal Chemistry</i> , <b>2021</b> , 42, 1162394	3.94	1
10	Search, Identification, and Design of Effective Antiviral Drugs Against Pandemic Human Coronaviruses. <i>Advances in Experimental Medicine and Biology</i> , <b>2021</b> , 1322, 219-260	3.6	1
9	Development of a practical synthesis of etravirine via a microwave-promoted amination. <i>Chemistry Central Journal</i> , <b>2018</b> , 12, 144		1
8	Structure-Based Design and Discovery of Pyridyl-Bearing Fused Bicyclic HIV-1 Inhibitors: Synthesis, Biological Characterization, and Molecular Modeling Studies. <i>Journal of Medicinal Chemistry</i> , <b>2021</b> , 64, 13604-13621	8.3	1

7	Design, synthesis, and antiviral evaluation of novel piperidine-substituted arylpyrimidines as HIV-1 NNRTIs by exploring the hydrophobic channel of NNIBP. <i>Bioorganic Chemistry</i> , <b>2021</b> , 116, 105353	5.1	1
6	Design, synthesis, and antiviral activity of phenylalanine derivatives as HIV-1 capsid inhibitors. <i>Bioorganic and Medicinal Chemistry</i> , <b>2021</b> , 48, 116414	3.4	0
5	Novel RNase H inhibitors blocking RNA-directed strand displacement DNA synthesis by HIV-1 reverse transcriptase.. <i>Journal of Molecular Biology</i> , <b>2022</b> , 167507	6.5	0
4	Chemical space exploration around indolylarylsulfone scaffold led to a novel class of highly active HIV-1 NNRTIs with spiro structural features. <i>European Journal of Medicinal Chemistry</i> , <b>2022</b> , 238, 114471	6.8	0
3	Discovery of potential dual-target prodrugs of HIV-1 reverse transcriptase and nucleocapsid protein 7. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2020</b> , 30, 127287	2.9	
2	Recent Developments in Small Molecular HIV-1 and Hepatitis B Virus RNase H Inhibitors <b>2020</b> , 273-292		
1	Design, Synthesis, and Acetylcholinesterase Inhibition Assay of Novel 9-(1-(Substituted-benzyl)piperidin-4-yl)-2-chloro-9H-purin-6-amine Derivatives. <i>Journal of Chemistry</i> , <b>2013</b> , 2013, 1-9	2.3	