

Karen S Wilcox

List of Publications by Year in descending order

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Version: 2024-02-01

88
papers

3,897
citations

94433

37
h-index

138484

58
g-index

93
all docs

93
docs citations

93
times ranked

4075
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms of Action of Antiepileptic Drugs. <i>International Review of Neurobiology</i> , 2007, 81, 85-110.	2.0	188
2	Discovery of antiepileptic drugs. <i>Neurotherapeutics</i> , 2007, 4, 12-17.	4.4	148
3	Mouse models of human <i>KCNQ2</i> and <i>KCNQ3</i> mutations for benign familial neonatal convulsions show seizures and neuronal plasticity without synaptic reorganization. <i>Journal of Physiology</i> , 2008, 586, 3405-3423.	2.9	122
4	Imaging Activity in Neurons and Glia with a Polr2a-Based and Cre-Dependent GCaMP5G-IRES-tdTomato Reporter Mouse. <i>Neuron</i> , 2014, 83, 1058-1072.	8.1	120
5	Calcium-Dependent Paired-Pulse Facilitation of Miniature EPSC Frequency Accompanies Depression of EPSCs at Hippocampal Synapses in Culture. <i>Journal of Neuroscience</i> , 1996, 16, 5312-5323.	3.6	113
6	Seizures following picornavirus infection. <i>Epilepsia</i> , 2008, 49, 1066-1074.	5.1	103
7	Innate but not adaptive immune responses contribute to behavioral seizures following viral infection. <i>Epilepsia</i> , 2010, 51, 454-464.	5.1	102
8	Development of Postinfection Epilepsy After Theiler's Virus Infection of C57BL/6 Mice. <i>Journal of Neuropathology and Experimental Neurology</i> , 2010, 69, 1210-1219.	1.7	101
9	The challenge and promise of anti-epileptic therapy development in animal models. <i>Lancet Neurology</i> , 2014, 13, 949-960.	10.2	101
10	<i>SCN8A</i> encephalopathy: Research progress and prospects. <i>Epilepsia</i> , 2016, 57, 1027-1035.	5.1	101
11	Effects of the Anticonvulsant Retigabine on Cultured Cortical Neurons: Changes in Electroresponsive Properties and Synaptic Transmission. <i>Molecular Pharmacology</i> , 2002, 61, 921-927.	2.3	100
12	Evaluation of Cannabidiol in Animal Seizure Models by the Epilepsy Therapy Screening Program (ETSP). <i>Neurochemical Research</i> , 2017, 42, 1939-1948.	3.3	98
13	Increased coupling and altered glutamate transport currents in astrocytes following kainic-acid-induced status epilepticus. <i>Neurobiology of Disease</i> , 2010, 40, 573-585.	4.4	97
14	Interleukin-6, Produced by Resident Cells of the Central Nervous System and Infiltrating Cells, Contributes to the Development of Seizures following Viral Infection. <i>Journal of Virology</i> , 2011, 85, 6913-6922.	3.4	94
15	Hippocampal TNF α Signaling Contributes to Seizure Generation in an Infection-Induced Mouse Model of Limbic Epilepsy. <i>ENeuro</i> , 2017, 4, ENEURO.0105-17.2017.	1.9	88
16	A Spontaneous Mutation Involving <i>Kcnq2</i> (Kv7.2) Reduces M-Current Density and Spike Frequency Adaptation in Mouse CA1 Neurons. <i>Journal of Neuroscience</i> , 2006, 26, 2053-2059.	3.6	77
17	Properties of inhibitory and excitatory synapses between hippocampal neurons in very low density cultures. <i>Synapse</i> , 1994, 18, 128-151.	1.2	76
18	Issues related to development of new antiseizure treatments. <i>Epilepsia</i> , 2013, 54, 24-34.	5.1	74

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19	A rat brain slice preparation for characterizing both thalamostriatal and corticostriatal afferents. <i>Journal of Neuroscience Methods</i> , 2007, 159, 224-235.	2.5	72
20	Theiler's virus infection chronically alters seizure susceptibility. <i>Epilepsia</i> , 2010, 51, 1418-1428.	5.1	71
21	Neuronal Injury, Gliosis, and Glial Proliferation in Two Models of Temporal Lobe Epilepsy. <i>Journal of Neuropathology and Experimental Neurology</i> , 2016, 75, 366-378.	1.7	71
22	Development and pharmacologic characterization of the rat 6 Hz model of partial seizures. <i>Epilepsia</i> , 2017, 58, 1073-1084.	5.1	62
23	Evidence for Functionally Distinct Synaptic NMDA Receptors in Ventromedial Versus Dorsolateral Striatum. <i>Journal of Neurophysiology</i> , 2003, 89, 69-80.	1.8	60
24	Subunit selectivity of topiramate modulation of heteromeric GABAA receptors. <i>Neuropharmacology</i> , 2006, 50, 845-857.	4.1	59
25	A new derivative of valproic acid amide possesses a broad-spectrum antiseizure profile and unique activity against status epilepticus and organophosphate neuronal damage. <i>Epilepsia</i> , 2012, 53, 134-146.	5.1	58
26	The Expression of Kainate Receptor Subunits in Hippocampal Astrocytes After Experimentally Induced Status Epilepticus. <i>Journal of Neuropathology and Experimental Neurology</i> , 2013, 72, 919-932.	1.7	57
27	Impaired cognitive ability and anxiety-like behavior following acute seizures in the Theiler's virus model of temporal lobe epilepsy. <i>Neurobiology of Disease</i> , 2014, 64, 98-106.	4.4	55
28	Identification of clinically relevant biomarkers of epileptogenesis – a strategic roadmap. <i>Nature Reviews Neurology</i> , 2021, 17, 231-242.	10.1	54
29	The current approach of the Epilepsy Therapy Screening Program contract site for identifying improved therapies for the treatment of pharmacoresistant seizures in epilepsy. <i>Neuropharmacology</i> , 2020, 166, 107811.	4.1	51
30	Does Brain Inflammation Mediate Pathological Outcomes in Epilepsy?. <i>Advances in Experimental Medicine and Biology</i> , 2014, 813, 169-183.	1.6	49
31	Validation of a Preclinical Drug Screening Platform for Pharmacoresistant Epilepsy. <i>Neurochemical Research</i> , 2017, 42, 1904-1918.	3.3	46
32	Differences in excitatory transmission between thalamic and cortical afferents to single spiny efferent neurons of rat dorsal striatum. <i>European Journal of Neuroscience</i> , 2008, 28, 2041-2052.	2.6	44
33	Role for Complement in the Development of Seizures following Acute Viral Infection. <i>Journal of Virology</i> , 2010, 84, 6452-6460.	3.4	44
34	The effect of CGX-1007 and CI-1041, novel NMDA receptor antagonists, on NMDA receptor-mediated EPSCs. <i>Epilepsy Research</i> , 2004, 59, 13-24.	1.6	43
35	Acute treatment with minocycline, but not valproic acid, improves long-term behavioral outcomes in the Theiler's virus model of temporal lobe epilepsy. <i>Epilepsia</i> , 2016, 57, 1958-1967.	5.1	42
36	Rapid loss of efficacy to the antiseizure drugs lamotrigine and carbamazepine: A novel experimental model of pharmacoresistant epilepsy. <i>Epilepsia</i> , 2013, 54, 1186-1194.	5.1	40

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37	Conditional Knock-out of mGluR5 from Astrocytes during Epilepsy Development Impairs High-Frequency Glutamate Uptake. <i>Journal of Neuroscience</i> , 2019, 39, 727-742.	3.6	40
38	Mice Carrying the Szt1 Mutation Exhibit Increased Seizure Susceptibility and Altered Sensitivity to Compounds Acting at the M-Channel. <i>Epilepsia</i> , 2004, 45, 1009-1016.	5.1	39
39	Evaluating an Etiologically Relevant Platform for Therapy Development for Temporal Lobe Epilepsy: Effects of Carbamazepine and Valproic Acid on Acute Seizures and Chronic Behavioral Comorbidities in the Theiler's Murine Encephalomyelitis Virus Mouse Model. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2015, 353, 318-329.	2.5	38
40	Electroconvulsive seizure thresholds and kindling acquisition rates are altered in mouse models of human <i>KCNQ2</i> and <i>KCNQ3</i> mutations for benign familial neonatal convulsions. <i>Epilepsia</i> , 2009, 50, 1752-1759.	5.1	36
41	Contributions of astrocytes to epileptogenesis following status epilepticus: Opportunities for preventive therapy?. <i>Neurochemistry International</i> , 2013, 63, 660-669.	3.8	36
42	Phenytoin- and carbamazepine-resistant spontaneous bursting in rat entorhinal cortex is blocked by retigabine in vitro. <i>Epilepsy Research</i> , 2007, 74, 97-106.	1.6	33
43	Repeated low-dose kainate administration in C57BL/6J mice produces temporal lobe epilepsy pathology but infrequent spontaneous seizures. <i>Experimental Neurology</i> , 2016, 279, 116-126.	4.1	33
44	Anticonvulsant Profile and Teratogenicity of N-methyl-tetramethylcyclopropyl Carboxamide: A New Antiepileptic Drug. <i>Epilepsia</i> , 2002, 43, 115-126.	5.1	31
45	Imaging activity in astrocytes and neurons with genetically encoded calcium indicators following in utero electroporation. <i>Frontiers in Molecular Neuroscience</i> , 2015, 8, 10.	2.9	31
46	Lack of Correlation of Central Nervous System Inflammation and Neuropathology with the Development of Seizures following Acute Virus Infection. <i>Journal of Virology</i> , 2011, 85, 8149-8157.	3.4	28
47	Oxidative stress in murine Theiler's virus-induced temporal lobe epilepsy. <i>Experimental Neurology</i> , 2015, 271, 329-334.	4.1	28
48	NBQX, a highly selective competitive antagonist of AMPA and KA ionotropic glutamate receptors, increases seizures and mortality following picornavirus infection. <i>Experimental Neurology</i> , 2016, 280, 89-96.	4.1	28
49	Inhibition of the betaine-GABA transporter (mGAT2/BGT-1) modulates spontaneous electrographic bursting in the medial entorhinal cortex (mEC). <i>Epilepsy Research</i> , 2008, 79, 6-13.	1.6	26
50	Characterization of the anticonvulsant profile and enantioselective pharmacokinetics of the chiral valproylamide propylisopropyl acetamide in rodents. <i>British Journal of Pharmacology</i> , 2003, 138, 602-613.	5.4	25
51	Development of an antiseizure drug screening platform for Dravet syndrome at the NINDS contract site for the Epilepsy Therapy Screening Program. <i>Epilepsia</i> , 2021, 62, 1665-1676.	5.1	25
52	Altered Learning and Arc-Regulated Consolidation of Learning in Striatum by Methamphetamine-Induced Neurotoxicity. <i>Neuropsychopharmacology</i> , 2012, 37, 885-895.	5.4	24
53	Ultrastructural and functional changes at the tripartite synapse during epileptogenesis in a model of temporal lobe epilepsy. <i>Experimental Neurology</i> , 2020, 326, 113196.	4.1	24
54	Antiepileptogenesis and disease modification: Progress, challenges, and the path forward—Report of the Preclinical Working Group of the 2018 NINDS-sponsored antiepileptogenesis and disease modification workshop. <i>Epilepsia Open</i> , 2021, 6, 276-296.	2.4	24

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55	The activity within the CA3 excitatory network during Theiler's virus encephalitis is distinct from that observed during chronic epilepsy. <i>Journal of NeuroVirology</i> , 2012, 18, 30-44.	2.1	23
56	Altered structure and function of astrocytes following status epilepticus. <i>Epilepsy and Behavior</i> , 2015, 49, 17-19.	1.7	22
57	Antiseizure drugs differentially modulate theta-burst induced long-term potentiation in C57BL/6 mice. <i>Epilepsia</i> , 2014, 55, 214-223.	5.1	21
58	Preclinical Comparison of Mechanistically Different Antiseizure, Antinociceptive, and/or Antidepressant Drugs in a Battery of Rodent Models of Nociceptive and Neuropathic Pain. <i>Neurochemical Research</i> , 2017, 42, 1995-2010.	3.3	21
59	Recurrent epileptiform discharges in the medial entorhinal cortex of kainate-treated rats are differentially sensitive to antiseizure drugs. <i>Epilepsia</i> , 2018, 59, 2035-2048.	5.1	21
60	Cannabidiol reduces seizures following CNS infection with Theiler's murine encephalomyelitis virus. <i>Epilepsia Open</i> , 2019, 4, 431-442.	2.4	21
61	Evaluation of antiseizure drug efficacy and tolerability in the rat lamotrigine-resistant amygdala kindling model. <i>Epilepsia Open</i> , 2019, 4, 452-463.	2.4	21
62	In vivo pharmacological effects of JZP-4, a novel anticonvulsant, in models for anticonvulsant, antimania and antidepressant activity. <i>Pharmacology Biochemistry and Behavior</i> , 2008, 89, 523-534.	2.9	19
63	Corneal kindled C57BL/6 mice exhibit saturated dentate gyrus long-term potentiation and associated memory deficits in the absence of overt neuron loss. <i>Neurobiology of Disease</i> , 2017, 105, 221-234.	4.4	19
64	Evaluation of subchronic administration of antiseizure drugs in spontaneously seizing rats. <i>Epilepsia</i> , 2020, 61, 1301-1311.	5.1	19
65	Differences in multiple forms of short-term plasticity between excitatory and inhibitory hippocampal neurons in culture. <i>Synapse</i> , 2003, 50, 41-52.	1.2	18
66	Once initiated, viral encephalitis-induced seizures are consistent no matter the treatment or lack of interleukin-6. <i>Journal of NeuroVirology</i> , 2011, 17, 496-499.	2.1	18
67	Novel, Broad-Spectrum Anticonvulsants Containing a Sulfamide Group: Pharmacological Properties of (S)-N-[(6-Chloro-2,3-dihydrobenzo[1,4]dioxin-2-yl)methyl]sulfamide (JNJ-26489112). <i>Journal of Medicinal Chemistry</i> , 2013, 56, 9019-9030.	6.4	18
68	Topiramate modulation of $\alpha 1$ - and $\alpha 2$ -homomeric GABA _A receptors. <i>Pharmacological Research</i> , 2011, 64, 44-52.	7.1	17
69	CGX-1007 prevents excitotoxic cell death via actions at multiple types of NMDA receptors. <i>NeuroToxicology</i> , 2011, 32, 392-399.	3.0	17
70	Epilepsy as a Network Disorder (2): What can we learn from other network disorders such as dementia and schizophrenia, and what are the implications for translational research?. <i>Epilepsy and Behavior</i> , 2018, 78, 302-312.	1.7	17
71	Preclinical evaluation of 2,2,3,3-tetramethylcyclopropanecarbonyl-urea, a novel, second generation to valproic acid, antiepileptic drug. <i>Neuropharmacology</i> , 2006, 51, 933-946.	4.1	16
72	Novel Targets for Developing Antiseizure and, Potentially, Antiepileptogenic Drugs. <i>Epilepsy Currents</i> , 2017, 17, 293-298.	0.8	15

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73	Effect of Conantokin G on NMDA Receptor-Mediated Spontaneous EPSCs in Cultured Cortical Neurons. <i>Journal of Neurophysiology</i> , 2006, 96, 1084-1092.	1.8	14
74	Spontaneous recurrent seizures in an intra-amygdala kainate microinjection model of temporal lobe epilepsy are differentially sensitive to antiseizure drugs. <i>Experimental Neurology</i> , 2022, 349, 113954.	4.1	14
75	<i>sec</i> -Butylpropylacetamide (SPD) has antimigraine properties. <i>Cephalalgia</i> , 2016, 36, 924-935.	3.9	13
76	Discovery of the First Vitamin K Analogue as a Potential Treatment of Pharmacoresistant Seizures. <i>Journal of Medicinal Chemistry</i> , 2020, 63, 5865-5878.	6.4	13
77	Characterization of desensitization in recombinant N-methyl-d-aspartate receptors: comparison with native receptors in cultured hippocampal neurons. <i>Molecular Brain Research</i> , 1998, 57, 10-20.	2.3	11
78	Development of an antiepileptogenesis drug screening platform: Effects of everolimus and phenobarbital. <i>Epilepsia</i> , 2021, 62, 1677-1688.	5.1	11
79	Genetic and pharmacological manipulation of glial glutamate transporters does not alter infection-induced seizure activity. <i>Experimental Neurology</i> , 2019, 318, 50-60.	4.1	10
80	Screening of prototype antiseizure and anti-inflammatory compounds in the Theiler's murine encephalomyelitis virus model of epilepsy. <i>Epilepsia Open</i> , 2022, 7, 46-58.	2.4	9
81	Reactivity and increased proliferation of NG2 cells following central nervous system infection with Theiler's murine encephalomyelitis virus. <i>Journal of Neuroinflammation</i> , 2020, 17, 369.	7.2	7
82	cAMP-Dependent protein kinase A activity modulates topiramate potentiation of GABAA receptors. <i>Epilepsy Research</i> , 2011, 96, 176-179.	1.6	5
83	Inflammation Unleashed in Viral-Induced Epileptogenesis. <i>Epilepsy Currents</i> , 2021, 21, 433-440.	0.8	5
84	Accurate detection of spontaneous seizures using a generalized linear model with external validation. <i>Epilepsia</i> , 2020, 61, 1906-1918.	5.1	4
85	Potassium channelopathies of epilepsy. <i>Epilepsia</i> , 2010, 51, 60-60.	5.1	3
86	Postinfectious Epilepsy. , 2017, , 683-696.		2
87	Response: Usefulness of the post-kainate spontaneous recurrent seizure model for screening for antiseizure and for neuroprotective effects. <i>Epilepsia</i> , 2021, 62, 1290-1290.	5.1	2
88	Could Astrocytes be Used to Beat Epilepsy? Experiments in dnSNARE Mice Drum up New Hope. <i>Epilepsy Currents</i> , 2014, 14, 277-278.	0.8	0