Catherine Heurteaux

List of Publications by Year
in descending order

108 papers	11,489 citations	38720 50 h-index	27389 106 g-index
111 all docs	111 docs citations	111 times ranked	8679 citing authors

#	Article	IF	Citations
1	A proton-gated cation channel involved in acid-sensing. Nature, 1997, 386, 173-177.	13.7	1,285
2	TASK, a human background K+ channel to sense external pH variations near physiological pH. EMBO Journal, 1997, 16, 5464-5471.	3.5	568
3	Essential role of adenosine, adenosine A1 receptors, and ATP-sensitive K+ channels in cerebral ischemic preconditioning.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 4666-4670.	3.3	535
4	Molecular Cloning of a Non-inactivating Proton-gated Na+ Channel Specific for Sensory Neurons. Journal of Biological Chemistry, 1997, 272, 20975-20978.	1.6	489
5	TREK-1, a K+ channel involved in neuroprotection and general anesthesia. EMBO Journal, 2004, 23, 2684-2695.	3.5	480
6	A Modulatory Subunit of Acid Sensing Ion Channels in Brain and Dorsal Root Ganglion Cells. Journal of Biological Chemistry, 1997, 272, 29778-29783.	1.6	469
7	TREK-1 is a heat-activated background K+ channel. EMBO Journal, 2000, 19, 2483-2491.	3.5	431
8	Polyunsaturated fatty acids are potent neuroprotectors. EMBO Journal, 2000, 19, 1784-1793.	3.5	423
9	A neuronal two P domain K+ channel stimulated by arachidonic acid and polyunsaturated fatty acids. EMBO Journal, 1998, 17, 3297-3308.	3.5	418
10	TREK-1, a K+ channel involved in polymodal pain perception. EMBO Journal, 2006, 25, 2368-2376.	3.5	363
11	Deletion of the background potassium channel TREK-1 results in a depression-resistant phenotype. Nature Neuroscience, 2006, 9, 1134-1141.	7.1	338
12	Activation of the Nuclear Factor-Î¹B Is a Key Event in Brain Tolerance. Journal of Neuroscience, 2001, 21, 4668-4677.	1.7	258
13	A tarantula peptide against pain via ASIC1a channels and opioid mechanisms. Nature Neuroscience, 2007, 10, 943-945.	7.1	246
14	Molecular Properties of Neuronal G-protein-activated Inwardly Rectifying K+ Channels. Journal of Biological Chemistry, 1995, 270, 28660-28667.	1.6	232
15	The Acid-sensitive Ionic Channel Subunit ASIC and the Mammalian Degenerin MDEG Form a Heteromultimeric H+-gated Na+ Channel with Novel Properties. Journal of Biological Chemistry, 1997, 272, 28819-28822.	1.6	200
16	H+-Gated Cation Channelsa. Annals of the New York Academy of Sciences, 1999, 868, 67-76.	1.8	199
17	New Modulatory Î± Subunits for Mammalian ShabK+ Channels. Journal of Biological Chemistry, 1997, 272, 24371-24379.	1.6	185
18	K+ channel openers prevent global ischemia-induced expression of c-fos, c-jun, heat shock protein, and amyloid beta-protein precursor genes and neuronal death in rat hippocampus.. Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 9431-9435.	3.3	178

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19	Molecular and cellular neuroinflammatory status of mouse brain after systemic lipopolysaccharide challenge: importance of CCR2/CCL2 signaling. Journal of Neuroinflammation, 2014, 11, 132.	3.1	165
20	Calcicludine, a venom peptide of the Kunitz-type protease inhibitor family, is a potent blocker of high-threshold Ca2+ channels with a high affinity for L-type channels in cerebellar granule neurons.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 878-882.	3.3	158
21	Polyunsaturated fatty acids induce ischemic and epileptic tolerance. Neuroscience, 2002, 109, 231-241.	1.1	154
22	Spadin, a Sortilin-Derived Peptide, Targeting Rodent TREK-1 Channels: A New Concept in the Antidepressant Drug Design. PLoS Biology, 2010, 8, e1000355.	2.6	151
23	Endothelial TWIK-related potassium channel-1 (TREK1) regulates immune-cell trafficking into the CNS. Nature Medicine, 2013, 19, 1161-1165.	15.2	136
24	Alpha-Linolenic acid and riluzole treatment confer cerebral protection and improve survival after focal brain ischemia. Neuroscience, 2006, 137, 241-251.	1.1	128
25	Mutually Protective Actions of Kainic Acid Epileptic Preconditioning and Sublethal Global Ischemia on Hippocampal Neuronal Death: Involvement of Adenosine A1 Receptors and KATP Channels. Journal of Cerebral Blood Flow and Metabolism, 1999, 19, 1296-1308.	2.4	126
26	Subchronic Alpha-Linolenic Acid Treatment Enhances Brain Plasticity and Exerts an Antidepressant Effect: A Versatile Potential Therapy for Stroke. Neuropsychopharmacology, 2009, 34, 2548-2559.	2.8	119
27	Polyunsaturated Fatty Acids Are Cerebral Vasodilators via the TREK-1 Potassium Channel. Circulation Research, 2007, 101, 176-184.	2.0	112
28	KATP channel openers, adenosine agonists and epileptic preconditioning are stress signals inducing hippocampal neuroprotection. Neuroscience, 2000, 100, 465-474.	1.1	110
29	The structure, function and distribution of the mouse TWIK-1 K+ channel. FEBS Letters, 1997, 402, 28-32.	1.3	109
30	Cloning of a New Mouse Two-P Domain Channel Subunit and a Human Homologue with a Unique Pore Structure. Journal of Biological Chemistry, 1999, 274, 11751-11760.	1.6	108
31	Expression of group II phospholipase A2 in rat brain after severe forebrain ischemia and in endotoxic shock. Brain Research, 1994, 651, 353-356.	1.1	107
32	Neuroprotective and neuroproliferative activities of NeuroAid (MLC601, MLC901), a Chinese medicine, in vitro and in vivo. Neuropharmacology, 2010, 58, 987-1001.	2.0	98
33	Linolenic acid prevents neuronal cell death and paraplegia after transient spinal cord ischemia in rats. Journal of Vascular Surgery, 2003, 38, 564-575.	0.6	97
34	Hyperpolarization-activated Cyclic Nucleotide-gated Channel 1 Is a Molecular Determinant of the Cardiac Pacemaker Current I f. Journal of Biological Chemistry, 2001, 276, 29233-29241.	1.6	95
35	A New K+ Channel Î² Subunit to Specifically Enhance Kv2.2 (CDRK) Expression. Journal of Biological Chemistry, 1996, 271, 26341-26348.	1.6	92
36	A Potent Protective Role of Lysophospholipids against Global Cerebral Ischemia and Glutamate Excitotoxicity in Neuronal Cultures. Journal of Cerebral Blood Flow and Metabolism, 2002, 22, 821-834.	2.4	89

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37	Altered acetylcholine, bradykinin and cutaneous pressureâ€induced vasodilation in mice lacking the TREK1 potassium channel: the endothelial link. EMBO Reports, 2007, 8, 354-359.	2.0	80
38	Enriched environment decreases microglia and brain macrophages inflammatory phenotypes through adiponectin-dependent mechanisms: Relevance to depressive-like behavior. Brain, Behavior, and Immunity, 2015, 50, 275-287.	2.0	75
39	Riluzole prevents ischemic spinal cord injury caused by aortic crossclamping. Journal of Thoracic and Cardiovascular Surgery, 1999, 117, 881-889.	0.4	74
40	MLC901, a Traditional Chinese Medicine protects the brain against global ischemia. Neuropharmacology, 2011, 61, 622-631.	2.0	74
41	ATP-sensitive potassium channels (KATP) in retina: a key role for delayed ischemic tolerance. Brain Research, 2001, 890, 118-129.	1.1	72
42	Memory processing and apamin induce immediate early gene expression in mouse brain. Molecular Brain Research, 1993, 18, 17-22.	2.5	67
43	Role of TREK-1 in Health and Disease, Focus on the Central Nervous System. Frontiers in Pharmacology, 2019, 10, 379.	1.6	66
44	Glutamate-induced overexpression of NMDA receptor messenger RNAs and protein triggered by activation of AMPA/kainate receptors in rat hippocampus following forebrain ischemia. Brain Research, 1994, 659, 67-74.	1.1	61
45	Protein Kinase Activation by Warm And Cold Hypoxia- Reoxygenation in Primary-Cultured Rat Hepatocytesâ€"JNK1/SAPK1 Involvement in Apoptosis. Hepatology, 2000, 32, 1029-1036.	3.6	61
46	Ischemic spinal cord injury induced by aortic cross-clamping: prevention by riluzoleâœ©. European Journal of Cardio-thoracic Surgery, 2000, 18, 174-181.	0.6	59
47	Neurogenesis-independent antidepressant-like effects of enriched environment is dependent on adiponectin. Psychoneuroendocrinology, 2015, 57, 72-83.	1.3	58
48	Prevention of ischemic spinal cord injury: Comparative effects of magnesium sulfate and riluzole. Journal of Vascular Surgery, 2000, 32, 179-189.	0.6	57
49	MLC901, a Traditional Chinese Medicine induces neuroprotective and neuroregenerative benefits after traumatic brain injury in rats. Neuroscience, 2014, 277, 72-86.	1.1	53
50	Targeting twoâ€pore domain <scp>K</scp>⁺ channels <scp>TREK</scp>â€1 and <scp>TASK</scp>â€3 for the treatment of depression: a new therapeutic concept. British Journal of Pharmacology, 2015, 172, 771-784.	2.7	52
51	Alpha-linolenic acid: A promising nutraceutical for the prevention of stroke. PharmaNutrition, 2013, 1, 1-8.	0.8	50
52	Globular Adiponectin Limits Microglia Pro-Inflammatory Phenotype through an AdipoR1/NF-ÎºB Signaling Pathway. Frontiers in Cellular Neuroscience, 2017, 11, 352.	1.8	47
53	A Human TREK-1/HEK Cell Line: A Highly Efficient Screening Tool for Drug Development in Neurological Diseases. PLoS ONE, 2011, 6, e25602.	1.1	45
54	Adiporon, an adiponectin receptor agonist acts as an antidepressant and metabolic regulator in a mouse model of depression. Translational Psychiatry, 2018, 8, 159.	2.4	45

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55	CD8+ T cells are essential for the effects of enriched environment on hippocampus-dependent behavior, hippocampal neurogenesis and synaptic plasticity. Brain, Behavior, and Immunity, 2018, 69, 235-254.	2.0	44
56	TREK-1 channels regulate pressure sensitivity and calcium signaling in trabecular meshwork cells. Journal of General Physiology, 2018, 150, 1660-1675.	0.9	43
57	Molecular cloning of a murine N-type calcium channel Î±1 subunit. FEBS Letters, 1994, 338, 1-5.	1.3	42
58	Dominant negative chimeras provide evidence for homo and heteromultimeric assembly of inward rectifier K+channel proteins via their N-terminal end. FEBS Letters, 1996, 378, 64-68.	1.3	41
59	Central CCL2 signaling onto MCH neurons mediates metabolic and behavioral adaptation to inflammation. EMBO Reports, 2016, 17, 1738-1752.	2.0	40
60	Differential phospholipase Câ€dependent modulation of TASK and TREK twoâ€pore domain K⁺ channels in rat thalamocortical relay neurons. Journal of Physiology, 2015, 593, 127-144.	1.3	39
61	Differential neuronal plasticity in mouse hippocampus associated with various periods of enriched environment during postnatal development. Brain Structure and Function, 2015, 220, 3435-3448.	1.2	38
62	Activation of ATP-sensitive potassium channels as an element of the neuroprotective effects of the Traditional Chinese Medicine MLC901 against oxygen glucose deprivation. Neuropharmacology, 2012, 63, 692-700.	2.0	33
63	Rat liver ischemiaâ€“reperfusion-induced apoptosis and necrosis are decreased by FK506 pretreatment. European Journal of Pharmacology, 2003, 473, 177-184.	1.7	29
64	In vitro and in vivo regulation of synaptogenesis by the novel antidepressant spadin. British Journal of Pharmacology, 2015, 172, 2604-2617.	2.7	29
65	Identification of the muscarinic pathway underlying cessation of sleep-related burst activity in rat thalamocortical relay neurons. Pflugers Archiv European Journal of Physiology, 2012, 463, 89-102.	1.3	28
66	Alpha-linolenic acid given as enteral or parenteral nutritional intervention against sensorimotor and cognitive deficits in a mouse model of ischemic stroke. Neuropharmacology, 2016, 108, 60-72.	2.0	28
67	Quantitative microlocation of lithium in the brain by a (n, Î±) nuclear reaction. Nature, 1980, 283, 299-302.	13.7	26
68	Quantitative study of the distribution of lithium in the mouse brain for various doses of lithium given to the animal. Brain Research, 1980, 199, 175-196.	1.1	26
69	Intermittent ischemia reduces warm hypoxia-reoxygenationâ€“induced JNK1/SAPK1 activation and apoptosis in rat hepatocytes. Hepatology, 2001, 34, 972-978.	3.6	26
70	MLC901 Favors Angiogenesis and Associated Recovery after Ischemic Stroke in Mice. Cerebrovascular Diseases, 2016, 42, 139-154.	0.8	26
71	Shortened Spadin Analogs Display Better TREK-1 Inhibition, In Vivo Stability and Antidepressant Activity. Frontiers in Pharmacology, 2017, 8, 643.	1.6	26
72	Fighting against depression with TREK-1 blockers: Past and future. A focus on spadin. , 2019, 194, 185-198.		23

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73	Positive effects of the traditional C hinese medicine MLC 901 in cognitive tasks. Journal of Neuroscience Research, 2015, 93, 1648-1663.	1.3	22
74	Acute and long-term cardioprotective effects of the Traditional Chinese Medicine MLC901 against myocardial ischemia-reperfusion injury in mice. Scientific Reports, 2017, 7, 14701.	1.6	21
75	Application of A (n, alpha) nuclear reaction to the microlocalization of lithium in the mouse brains.. Journal of Histochemistry and Cytochemistry, 1979, 27, 1462-1470.	1.3	17
76	The Effects of FK506 on Neurologic and Histopathologic Outcome After Transient Spinal Cord Ischemia Induced by Aortic Cross-Clamping in Rats. Anesthesia and Analgesia, 2001, 92, 1237-1244.	1.1	17
77	Potentiation of Calcium Influx and Insulin Secretion in Pancreatic Beta Cell by the Specific TREK-1 Blocker Spadin. Journal of Diabetes Research, 2016, 2016, 1-9.	1.0	17
78	Inhibition of eIF5A hypusination pathway as a new pharmacological target for stroke therapy. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 1080-1090.	2.4	17
79	Lithium transport in the mouse brain. Brain Research, 1991, 547, 123-129.	1.1	16
80	Altered Trek-1 Function in Sortilin Deficient Mice Results in Decreased Depressive-Like Behavior. Frontiers in Pharmacology, 2018, 9, 863.	1.6	16
81	Diltiazem Reduces Apoptosis in Rat Hepatocytes Subjected to Warm Hypoxia-Reoxygenation. Pharmacology, 2002, 65, 87-95.	0.9	15
82	InÂvivo Characterization of Brain Morphometric and Metabolic Endophenotypes in Three Inbred Strains of Mice Using Magnetic Resonance Techniques. Behavior Genetics, 2006, 36, 732-744.	1.4	15
83	Serum sortilin-derived propeptides concentrations are decreased in major depressive disorder patients. Journal of Affective Disorders, 2017, 208, 443-447.	2.0	15
84	Lithium Distribution in the Brain of Normal Mice and of "Quaking" Dysmyelinating Mutants. Journal of Neurochemistry, 1986, 46, 1317-1321.	2.1	13
85	Fluoxetine Protection in Decompression Sickness in Mice is Enhanced by Blocking TREK-1 Potassium Channel with the â€œspadinâ€•Antidepressant. Frontiers in Physiology, 2016, 7, 42.	1.3	13
86	Retroinverso analogs of spadin display increased antidepressant effects. Psychopharmacology, 2015, 232, 561-574.	1.5	12
87	MCD peptide and dendrotoxin I activatec-fos andc-jun expression by acting on two different types of K+ channels. A discrimination using the K+ channel opener lemakalim. Brain Research, 1991, 554, 22-29.	1.1	11
88	The peptidic antidepressant spadin interacts with prefrontal 5-HT4 and mGluR2 receptors in the control of serotonergic function. Brain Structure and Function, 2016, 221, 21-37.	1.2	11
89	CD4+ T Cells Have a Permissive Effect on Enriched Environment-Induced Hippocampus Synaptic Plasticity. Frontiers in Synaptic Neuroscience, 2018, 10, 14.	1.3	11
90	Behavioral effects of modulators of ATP-sensitive K+ channels in the rat dorsal pallidum. European Journal of Pharmacology, 1992, 217, 71-77.	1.7	7

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91	Increased serum levels of sortilin-derived propeptide after electroconvulsive therapy in treatment-resistant depressed patients. Neuropsychiatric Disease and Treatment, 2018, Volume 14, 2307-2312.	1.0	7
92	The Involvement of Sortilin/NTSR3 in Depression as the Progenitor of Spadin and Its Role in the Membrane Expression of TREK-1. Frontiers in Pharmacology, 2018, 9, 1541.	1.6	7
93	Sortilin-derived peptides promote pancreatic beta-cell survival through CREB signaling pathway. Pharmacological Research, 2021, 167, 105539.	3.1	7
94	Estimation of local kinetic parameters of exchange of lithium in various substructures of the mouse brain, using the 6Li(n,Î±)3H-nuclear reaction. Neuropharmacology, 1983, 22, 227-232.	2.0	6
95	Microlocating lithium in the mouse embryo by use of a (n, ?) nuclear reaction. Wilhelm Roux's Archives of Developmental Biology, 1985, 194, 433-435.	1.4	6
96	Adult neurogenesis and brain remodelling after brain injury: From bench to bedside?. Anaesthesia, Critical Care & Pain Medicine, 2015, 34, 239-245.	0.6	6
97	First evidence of protective effects on stroke recovery and post-stroke depression induced by sortilin-derived peptides. Neuropharmacology, 2019, 158, 107715.	2.0	5
98	TRH modulates glutamatergic synaptic inputs on CA1 neurons of the mouse hippocampus in a biphasic manner. Neuropharmacology, 2016, 110, 69-81.	2.0	4
99	Identification and characterization of two zebrafish Twik related potassium channels, Kcnk2a and Kcnk2b. Scientific Reports, 2018, 8, 15311.	1.6	4
100	Mapacalcine Protects Mouse Neurons against Hypoxia by Blocking Cell Calcium Overload. PLoS ONE, 2013, 8, e66194.	1.1	4
101	Reply:. Journal of Thoracic and Cardiovascular Surgery, 1999, 118, 1157.	0.4	2
102	CD4⁺ T Cells Affect the Thyroid Hormone Transport at the Choroid Plexus in Mice Raised in Enriched Environment. NeuroImmunoModulation, 2019, 26, 59-66.	0.9	2
103	Diazoxide for cerebral protection during deep hypothermic circulatory arrest: is it really safe?. Annals of Thoracic Surgery, 2002, 74, 632.	0.7	1
104	Le rÃ1e majeur du canal potassique TREK-1 dans la protection neuronale induite par les omÃ©ga-3. Oleagineux Corps Gras Lipides, 2005, 12, 68-77.	0.2	1
105	Spadin, a Sortilin-derived peptide: a new concept in the antidepressant drug design. Oleagineux Corps Gras Lipides, 2011, 18, 202-207.	0.2	1
106	Editorial: Sortilin and Sortilin Partners in Physiology and Pathologies. Frontiers in Pharmacology, 2019, 10, 791.	1.6	1
107	PUFA-induced neuroprotection against cerebral or spinal cord ischemiaviathe TREK-1 channel. Oleagineux Corps Gras Lipides, 2007, 14, 190-193.	0.2	0
108	Sortilin/neurotensin receptor-3 and its derived peptides in depression. , 2021, , 235-241.		0