Paul S Buckmaster

List of Publications by Year
in descending order

74 papers	5,959 citations	76326 40 h-index	95266 68 g-index
75 all docs	75 docs citations	75 times ranked	4318 citing authors

#	Article	IF	Citations
1	Neuron loss, granule cell axon reorganization, and functional changes in the dentate gyrus of epileptic kainateâ€treated rats. Journal of Comparative Neurology, 1997, 385, 385-404.	1.6	454
2	Recurrent spontaneous motor seizures after repeated low-dose systemic treatment with kainate: assessment of a rat model of temporal lobe epilepsy. Epilepsy Research, 1998, 31, 73-84.	1.6	340
3	Reduced Inhibition of Dentate Granule Cells in a Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2003, 23, 2440-2452.	3.6	340
4	Axon Sprouting in a Model of Temporal Lobe Epilepsy Creates a Predominantly Excitatory Feedback Circuit. Journal of Neuroscience, 2002, 22, 6650-6658.	3.6	280
5	Highly Specific Neuron Loss Preserves Lateral Inhibitory Circuits in the Dentate Gyrus of Kainate-Induced Epileptic Rats. Journal of Neuroscience, 1999, 19, 9519-9529.	3.6	250
6	Identification of new epilepsy treatments: Issues in preclinical methodology. Epilepsia, 2012, 53, 571-582.	5.1	219
7	Inhibition of the Mammalian Target of Rapamycin Signaling Pathway Suppresses Dentate Granule Cell Axon Sprouting in a Rodent Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2009, 29, 8259-8269.	3.6	211
8	Axon arbors and synaptic connections of hippocampal mossy cells in the rat in vivo. Journal of Comparative Neurology, 1996, 366, 270-292.	1.6	206
9	Rapamycin Suppresses Mossy Fiber Sprouting But Not Seizure Frequency in a Mouse Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2011, 31, 2337-2347.	3.6	204
10	Distinct Neuronal Coding Schemes in Memory Revealed by Selective Erasure of Fast Synchronous Synaptic Transmission. Neuron, 2012, 73, 990-1001.	8.1	165
11	Network Properties of the Dentate Gyrus in Epileptic Rats With Hilar Neuron Loss and Granule Cell Axon Reorganization. Journal of Neurophysiology, 1997, 77, 2685-2696.	1.8	162
12	In Vivo Intracellular Analysis of Granule Cell Axon Reorganization in Epileptic Rats. Journal of Neurophysiology, 1999, 81, 712-721.	1.8	159
13	Mossy cell axonal projections to the dentate gyrus molecular layer in the rat hippocampal slice. Hippocampus, 1992, 2, 349-362.	1.9	155
14	Hyperexcitability, Interneurons, and Loss of GABAergic Synapses in Entorhinal Cortex in a Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2006, 26, 4613-4623.	3.6	153
15	Early Activation of Ventral Hippocampus and Subiculum during Spontaneous Seizures in a Rat Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2013, 33, 11100-11115.	3.6	151
16	Hippocampal mossy cell function: A speculative view. Hippocampus, 1994, 4, 393-402.	1.9	123
17	Surviving Hilar Somatostatin Interneurons Enlarge, Sprout Axons, and Form New Synapses with Granule Cells in a Mouse Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2009, 29, 14247-14256.	3.6	121
18	Reduced Inhibition and Increased Output of Layer II Neurons in the Medial Entorhinal Cortex in a Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2003, 23, 8471-8479.	3.6	106

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19	Highâ€dose rapamycin blocks mossy fiber sprouting but not seizures in a mouse model of temporal lobe epilepsy. Epilepsia, 2013, 54, 1535-1541.	5.1	104
20	Initial loss but later excess of GABAergic synapses with dentate granule cells in a rat model of temporal lobe epilepsy. Journal of Comparative Neurology, 2010, 518, 647-667.	1.6	91
21	Stress coping stimulates hippocampal neurogenesis in adult monkeys. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14823-14827.	7.1	89
22	Unit Activity of Hippocampal Interneurons before Spontaneous Seizures in an Animal Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2015, 35, 6600-6618.	3.6	89
23	Ultrastructural localization of neurotransmitter immunoreactivity in mossy cell axons and their synaptic targets in the rat dentate gyrus. , 1997, 7, 559-570.		85
24	Changes in Granule Cell Firing Rates Precede Locally Recorded Spontaneous Seizures by Minutes in an Animal Model of Temporal Lobe Epilepsy. Journal of Neurophysiology, 2008, 99, 2431-2442.	1.8	79
25	Does Mossy Fiber Sprouting Give Rise to the Epileptic State?. Advances in Experimental Medicine and Biology, 2014, 813, 161-168.	1.6	73
26	Laboratory animal models of temporal lobe epilepsy. Comparative Medicine, 2004, 54, 473-85.	1.0	73
27	Recurrent excitation of granule cells with basal dendrites and low interneuron density and inhibitory postsynaptic current frequency in the dentate gyrus of macaque monkeys. Journal of Comparative Neurology, 2004, 476, 205-218.	1.6	72
28	Recurrent Circuits in Layer II of Medial Entorhinal Cortex in a Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2007, 27, 1239-1246.	3.6	72
29	Intracellular recording and labeling of mossy cells and proximal CA3 pyramidal cells in macaque monkeys. Journal of Comparative Neurology, 2001, 430, 264-281.	1.6	66
30	Preictal Activity of Subicular, CA1, and Dentate Gyrus Principal Neurons in the Dorsal Hippocampus before Spontaneous Seizures in a Rat Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2014, 34, 16671-16687.	3.6	65
31	Heightened seizure severity in somatostatin knockout mice. Epilepsy Research, 2002, 48, 43-56.	1.6	63
32	Axon arbors and synaptic connections of a vulnerable population of interneurons in the dentate gyrus in vivo. Journal of Comparative Neurology, 2002, 445, 360-373.	1.6	62
33	Dysfunction of the Dentate Basket Cell Circuit in a Rat Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2009, 29, 7846-7856.	3.6	62
34	Increased Excitatory Synaptic Input to Granule Cells from Hilar and CA3 Regions in a Rat Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2012, 32, 1183-1196.	3.6	58
35	Seizure frequency correlates with loss of dentate gyrus GABAergic neurons in a mouse model of temporal lobe epilepsy. Journal of Comparative Neurology, 2017, 525, 2592-2610.	1.6	55
36	Somatostatin-immunoreactivity in the hippocampus of mouse, rat, guinea pig, and rabbit. Hippocampus, 1994, 4, 167-180.	1.9	54

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37	Synaptic input to dentate granule cell basal dendrites in a rat model of temporal lobe epilepsy. Journal of Comparative Neurology, 2008, 509, 190-202.	1.6	53
38	Rapamycin suppresses axon sprouting by somatostatin interneurons in a mouse model of temporal lobe epilepsy. Epilepsia, 2011, 52, 2057-2064.	5.1	51
39	Hippocampal neuropathology of domoic acidâ€"induced epilepsy in California sea lions (<i>Zalophus) Tj ETQq1 1 0.784314 rgBT /Overlo	1.6	51
40	Dendritic morphology, local circuitry, and intrinsic electrophysiology of principal neurons in the entorhinal cortex of macaque monkeys. Journal of Comparative Neurology, 2004, 470, 317-329.	1.6	45
41	Physiological and Morphological Heterogeneity of Dentate Gyrus-Hilus Interneurons in the Gerbil HippocampusIn Vivo. European Journal of Neuroscience, 1995, 7, 1393-1402.	2.6	44
42	Excitatory Input Onto Hilar Somatostatin Interneurons Is Increased in a Chronic Model of Epilepsy. Journal of Neurophysiology, 2010, 104, 2214-2223.	1.8	44
43	Stereological analysis of forebrain regions in kainate-treated epileptic rats. Brain Research, 2005, 1057, 141-152.	2.2	41
44	Mossy Fiber Sprouting in the Dentate Gyrus. , 2012, , 416-431.		40
45	Factors affecting outcomes of pilocarpine treatment in a mouse model of temporal lobe epilepsy. Epilepsy Research, 2012, 102, 153-159.	1.6	39
46	Testing the Disinhibition Hypothesis of Epileptogenesis In Vivo and during Spontaneous Seizures. Journal of Neuroscience, 2000, 20, 6232-6240.	3.6	36
47	Hilar somatostatin interneuron loss reduces dentate gyrus inhibition in a mouse model of temporal lobe epilepsy. Epilepsia, 2016, 57, 977-983.	5.1	36
48	Absence of Temporal Lobe Epilepsy Pathology in Dogs with Medically Intractable Epilepsy. Journal of Veterinary Internal Medicine, 2002, 16, 95-99.	1.6	29
49	Evoked Responses of the Dentate Gyrus During Seizures in Developing Gerbils With Inherited Epilepsy. Journal of Neurophysiology, 2002, 88, 783-793.	1.8	29
50	Blockade of excitatory synaptogenesis with proximal dendrites of dentate granule cells following rapamycin treatment in a mouse model of temporal lobe epilepsy. Journal of Comparative Neurology, 2015, 523, 281-297.	1.6	26
51	Mossy cell dendritic structure quantified and compared with other hippocampal neurons labeled in rats in vivo. Epilepsia, 2012, 53, 9-17.	5.1	24
52	Is there a critical period for mossy fiber sprouting in a mouse model of temporal lobe epilepsy?. Epilepsia, 2011, 52, 2326-2332.	5.1	23
53	Prolonged Infusion of Tetrodotoxin Does Not Block Mossy Fiber Sprouting in Pilocarpine-treated Rats. Epilepsia, 2004, 45, 452-458.	5.1	20
54	Neuron loss and axon reorganization in the dentate gyrus of cats infected with the feline immunodeficiency virus. Journal of Comparative Neurology, 1999, 411, 563-577.	1.6	19

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55	Somatostatin-immunoreactive interneurons contribute to lateral inhibitory circuits in the dentate gyrus of control and epileptic rats. Hippocampus, 2001, 11, 418-422.	1.9	18
56	Absence of Temporal Lobe Epilepsy Pathology in Dogs with Medically Intractable Epilepsy. Journal of Veterinary Internal Medicine, 2002, 16, 95.	1.6	17
57	Prolonged Infusion of Cycloheximide Does Not Block Mossy Fiber Sprouting in a Model of Temporal Lobe Epilepsy. Epilepsia, 2005, 46, 1017-1020.	5.1	16
58	Surviving mossy cells enlarge and receive more excitatory synaptic input in a mouse model of temporal lobe epilepsy. Hippocampus, 2015, 25, 594-604.	1.9	16
59	More Docked Vesicles and Larger Active Zones at Basket Cell-to-Granule Cell Synapses in a Rat Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2016, 36, 3295-3308.	3.6	15
60	Ictal onset sites and Î³â€aminobutyric acidergic neuron loss in epileptic pilocarpineâ€treated rats. Epilepsia, 2020, 61, 856-867.	5.1	15
61	Mossy fiber sprouting in the dentate gyrus. Epilepsia, 2010, 51, 39-39.	5.1	14
62	Proportional loss of parvalbuminâ€immunoreactive synaptic boutons and granule cells from the hippocampus of sea lions with temporal lobe epilepsy. Journal of Comparative Neurology, 2019, 527, 2341-2355.	1.6	12
63	Inherited Epilepsy in Mongolian Gerbils. , 2006, , 273-294.		11
64	Prolonged infusion of inhibitors of calcineurin or Lâ€type calcium channels does not block mossy fiber sprouting in a model of temporal lobe epilepsy. Epilepsia, 2009, 50, 56-64.	5.1	10
65	Non-invasive, neurotoxic surgery reduces seizures in a rat model of temporal lobe epilepsy. Experimental Neurology, 2021, 343, 113761.	4.1	6
66	Lack of Hyperinhibition of Oriens Lacunosum-Moleculare Cells by Vasoactive Intestinal Peptide-Expressing Cells in a Model of Temporal Lobe Epilepsy. ENeuro, 2021, 8, ENEURO.0299-21.2021.	1.9	6
67	GABAA Receptorâ€“Mediated IPSCs and Î±1 Subunit Expression Are Not Reduced in the Substantia Nigra Pars Reticulata of Gerbils With Inherited Epilepsy. Journal of Neurophysiology, 2006, 95, 2446-2455.	1.8	5
68	Does a Unique Type of CA3 Pyramidal Cell in Primates Bypass the Dentate Gate?. Journal of Neurophysiology, 2005, 94, 896-900.	1.8	4
69	A single subconvulsant dose of domoic acid at mid-gestation does not cause temporal lobe epilepsy in mice. NeuroToxicology, 2018, 66, 128-137.	3.0	4
70	Testing Different Combinations of Acoustic Pressure and Doses of Quinolinic Acid for Induction of Focal Neuron Loss in Mice Using Transcranial Low-Intensity Focused Ultrasound. Ultrasound in Medicine and Biology, 2019, 45, 129-136.	1.5	3
71	Seizure-induced basal dendrites on granule cells. Epilepsia, 2010, 51, 43-43.	5.1	2
72	Comparative Biology and Species Effects on Expression of Epilepsy. , 2017, , 7-19.		1

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73	Naturally Occurring Epilepsy and Status Epilepticus in Sea Lions. , 2017, , 413-425.		1
74	Cannabinoid receptor 1-labeled boutons in the sclerotic dentate gyrus of epileptic sea lions. Epilepsy Research, 2022, 184, 106965.	1.6	0