Helen E Scharfman

List of Publications by Year
in descending order

116 papers	10,557 citations	28242 55 h-index	36008 97 g-index
127 all docs	127 docs citations	127 times ranked	10653 citing authors

#	Article	IF	Citations
1	Robust chronic convulsive seizures, high frequency oscillations, and human seizure onset patterns in an intrahippocampal kainic acid model in mice. Neurobiology of Disease, 2022, 166, 105637.	2.1	29
2	Endocrine Insights into the Pathophysiology of Autism Spectrum Disorder. Neuroscientist, 2021, 27, 650-667.	2.6	13
3	Bidirectional Regulation of Cognitive and Anxiety-like Behaviors by Dentate Gyrus Mossy Cells in Male and Female Mice. Journal of Neuroscience, 2021, 41, 2475-2495.	1.7	43
4	Dorsal and ventral mossy cells differ in their axonal projections throughout the dentate gyrus of the mouse hippocampus. Hippocampus, 2021, 31, 522-539.	0.9	33
5	Early changes in synaptic and intrinsic properties of dentate gyrus granule cells in a mouse model of Alzheimer's disease neuropathology and atypical effects of the cholinergic antagonist atropine. Neurobiology of Disease, 2021, 152, 105274.	2.1	15
6	Direct synaptic excitation between hilar mossy cells revealed with a targeted voltage sensor. Hippocampus, 2021, 31, 1215-1232.	0.9	5
7	New Insights and Methods for Recording and Imaging Spontaneous Spreading Depolarizations and Seizure-Like Events in Mouse Hippocampal Slices. Frontiers in Cellular Neuroscience, 2021, 15, 761423.	1.8	3
8	Off-Target Expression of Cre-Dependent Adeno-Associated Viruses in Wild-Type C57BL/6J Mice. ENeuro, 2021, 8, ENEURO.0363-21.2021.	0.9	15
9	Genes Bound by Î”FosB in Different Conditions With Recurrent Seizures Regulate Similar Neuronal Functions. Frontiers in Neuroscience, 2020, 14, 472.	1.4	8
10	Novelty and Novel Objects Increase c-Fos Immunoreactivity in Mossy Cells in the Mouse Dentate Gyrus. Neural Plasticity, 2019, 2019, 1-16.	1.0	39
11	Adult neurogenesis in the mouse dentate gyrus protects the hippocampus from neuronal injury following severe seizures. Hippocampus, 2019, 29, 683-709.	0.9	25
12	Early Seizure Activity Accelerates Depletion of Hippocampal Neural Stem Cells and Impairs Spatial Discrimination in an Alzheimerâ€™s Disease Model. Cell Reports, 2019, 27, 3741-3751.e4.	2.9	51
13	The Dentate Gyrus and Temporal Lobe Epilepsy: An â€œExcitingâ€•Era. Epilepsy Currents, 2019, 19, 249-255.	0.4	37
14	Adult-born hippocampal neurons bidirectionally modulate entorhinal inputs into the dentate gyrus. Science, 2019, 364, 578-583.	6.0	138
15	An Excitatory and Epileptogenic Effect of Dentate Gyrus Mossy Cells in a Mouse Model of Epilepsy. Cell Reports, 2019, 29, 2875-2889.e6.	2.9	71
16	Controlling learning and epilepsy together. Science, 2018, 359, 740-741.	6.0	5
17	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?. Epilepsy and Behavior, 2018, 78, 302-312.	0.9	17
18	Advances in understanding hilar mossy cells of the dentate gyrus. Cell and Tissue Research, 2018, 373, 643-652.	1.5	48

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19	Preclinical common data elements (<scp>CDE</scp>s) for epilepsy: A joint <scp>ILAE</scp>/<scp>AES</scp> and <scp>NINDS</scp> translational initiative. Epilepsia Open, 2018, 3, 9-12.	1.3	57
20	Common data elements (CDEs) for preclinical epilepsy research: Introduction to CDEs and description of core CDEs. A TASK3 report of the ILAE/AES joint translational task force. Epilepsia Open, 2018, 3, 13-23.	1.3	22
21	A Novel Neuroprotective Mechanism for Lithium That Prevents Association of the p75^{NTR}-Sortilin Receptor Complex and Attenuates proNGF-Induced Neuronal Death<i>In Vitro</i>and<i>In Vivo</i>. ENeuro, 2018, 5, ENEURO.0257-17.2017.	0.9	16
22	Expansion of mossy fibers and CA3 apical dendritic length accompanies the fall in dendritic spine density after gonadectomy in male, but not female, rats. Brain Structure and Function, 2017, 222, 587-601.	1.2	26
23	Acute restraint stress decreases c-fos immunoreactivity in hilar mossy cells of the adult dentate gyrus. Brain Structure and Function, 2017, 222, 2405-2419.	1.2	22
24	Hilar granule cells of the mouse dentate gyrus: effects of age, septotemporal location, strain, and selective deletion of the proapoptotic gene BAX. Brain Structure and Function, 2017, 222, 3147-3161.	1.2	14
25	Epigenetic suppression of hippocampal calbindin-D28k by Î”FosB drives seizure-related cognitive deficits. Nature Medicine, 2017, 23, 1377-1383.	15.2	86
26	Common data elements for preclinical epilepsy research: Standards for data collection and reporting. A <scp>TASK</scp>3 report of the <scp>AES</scp>/<scp>ILAE</scp> Translational Task Force of the ILAE. Epilepsia, 2017, 58, 78-86.	2.6	21
27	Increased gyrification and aberrant adult neurogenesis of the dentate gyrus in adult rats. Brain Structure and Function, 2017, 222, 4219-4237.	1.2	7
28	Sex differences in hippocampal area CA3 pyramidal cells. Journal of Neuroscience Research, 2017, 95, 563-575.	1.3	43
29	Activation of local inhibitory circuits in the dentate gyrus by adultâ€born neurons. Hippocampus, 2016, 26, 763-778.	0.9	126
30	Interictal spikes during sleep are an early defect in the Tg2576 mouse model of Î²-amyloid neuropathology. Scientific Reports, 2016, 6, 20119.	1.6	109
31	The enigmatic mossy cell of the dentate gyrus. Nature Reviews Neuroscience, 2016, 17, 562-575.	4.9	211
32	Observations on hippocampal mossy cells in mink (<i>Neovison vison</i>) with special reference to dendrites ascending to the granular and molecular layers. Hippocampus, 2016, 26, 229-245.	0.9	6
33	Androgen Modulation of Hippocampal Structure and Function. Neuroscientist, 2016, 22, 46-60.	2.6	78
34	Corruption of the dentate gyrus by â€œdominantâ€• granule cells: Implications for dentate gyrus function in health and disease. Neurobiology of Learning and Memory, 2016, 129, 69-82.	1.0	33
35	Potential implications of a monosynaptic pathway from mossy cells to adult-born granule cells of the dentate gyrus. Frontiers in Systems Neuroscience, 2015, 9, 112.	1.2	31
36	Suppression of Adult Neurogenesis Increases the Acute Effects of Kainic Acid. Experimental Neurology, 2015, 264, 135-149.	2.0	79

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37	Opioid Receptor-Dependent Sex Differences in Synaptic Plasticity in the Hippocampal Mossy Fiber Pathway of the Adult Rat. Journal of Neuroscience, 2015, 35, 1723-1738.	1.7	54
38	Aberrant hippocampal neurogenesis contributes to epilepsy and associated cognitive decline. Nature Communications, 2015, 6, 6606.	5.8	333
39	Interictal spike frequency varies with ovarian cycle stage in a rat model of epilepsy. Experimental Neurology, 2015, 269, 102-119.	2.0	29
40	Entorhinal cortical defects in Tg2576 mice are present as early as 2â€"4Âmonths of age. Neurobiology of Aging, 2015, 36, 134-148.	1.5	30
41	p75^{NTR}, but Not proNGF, Is Upregulated Following Status Epilepticus in Mice. ASN Neuro, 2014, 6, 175909141455218.	1.5	40
42	Is Plasticity of GABAergic Mechanisms Relevant to Epileptogenesis?. Advances in Experimental Medicine and Biology, 2014, 813, 133-150.	0.8	36
43	proBDNF Negatively Regulates Neuronal Remodeling, Synaptic Transmission, and Synaptic Plasticity in Hippocampus. Cell Reports, 2014, 7, 796-806.	2.9	238
44	Differential regulation of BDNF, synaptic plasticity and sprouting in the hippocampal mossy fiber pathway of male and female rats. Neuropharmacology, 2014, 76, 696-708.	2.0	96
45	Sex differences in the neurobiology of epilepsy: A preclinical perspective. Neurobiology of Disease, 2014, 72, 180-192.	2.1	114
46	How Can We Identify Ictal and Interictal Abnormal Activity?. Advances in Experimental Medicine and Biology, 2014, 813, 3-23.	0.8	138
47	Spikeâ€"wave discharges in adult Spragueâ€"Dawley rats and their implications for animal models of temporal lobe epilepsy. Epilepsy and Behavior, 2014, 32, 121-131.	0.9	73
48	Testosterone Depletion in Adult Male Rats Increases Mossy Fiber Transmission, LTP, and Sprouting in Area CA3 of Hippocampus. Journal of Neuroscience, 2013, 33, 2338-2355.	1.7	70
49	Issues related to symptomatic and diseaseâ€modifying treatments affecting cognitive and neuropsychiatric comorbidities of epilepsy. Epilepsia, 2013, 54, 44-60.	2.6	142
50	Shared cognitive and behavioral impairments in epilepsy and Alzheimer's disease and potential underlying mechanisms. Epilepsy and Behavior, 2013, 26, 343-351.	0.9	111
51	Aquaporin-4 water channels and synaptic plasticity in the hippocampus. Neurochemistry International, 2013, 63, 702-711.	1.9	62
52	Preface to the Special Issue entitled â€œThe Future of Translational Epilepsy Researchâ€. Epilepsy and Behavior, 2013, 26, 209.	0.9	0
53	The entorhinal cortex and neurotrophin signaling in Alzheimerâ€™s disease and other disorders. Cognitive Neuroscience, 2013, 4, 123-135.	0.6	38
54	Expression of câ€fos in hilar mossy cells of the dentate gyrus <i>in vivo</i>. Hippocampus, 2013, 23, 649-655.	0.9	41

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55	Impact of early life exposure to antiepileptic drugs on neurobehavioral outcomes based on laboratory animal and clinical research. Epilepsy and Behavior, 2013, 26, 427-439.	0.9	34
56	The Influence of Ectopic Migration of Granule Cells into the Hilus on Dentate Gyrus-CA3 Function. PLoS ONE, 2013, 8, e68208.	1.1	63
57	Alzheimerâ€™s disease and epilepsy: insight from animal models. Future Neurology, 2012, 7, 177-192.	0.9	64
58	Finding a better drug for epilepsy: Preclinical screening strategies and experimental trial design. Epilepsia, 2012, 53, 1860-1867.	2.6	69
59	Early Cognitive Experience Prevents Adult Deficits in a Neurodevelopmental Schizophrenia Model. Neuron, 2012, 75, 714-724.	3.8	114
60	â€œUntanglingâ€•Alzheimer's Disease and Epilepsy. Epilepsy Currents, 2012, 12, 178-183.	0.4	36
61	New insights into the role of hilar ectopic granule cells in the dentate gyrus based on quantitative anatomic analysis and threeâ€dimensional reconstruction. Epilepsia, 2012, 53, 109-115.	2.6	60
62	Hilar mossy cells of the dentate gyrus: a historical perspective. Frontiers in Neural Circuits, 2012, 6, 106.	1.4	158
63	Temporal Lobe Epilepsy and the BDNF Receptor, TrkB. , 2012, , 514-531.		29
64	17Î²-Estradiol Increases Astrocytic Vascular Endothelial Growth Factor (VEGF) in Adult Female Rat Hippocampus. Endocrinology, 2011, 152, 1745-1751.	1.4	42
65	A selective role for ARMS/Kidins220 scaffold protein in spatial memory and trophic support of entorhinal and frontal cortical neurons. Experimental Neurology, 2011, 229, 409-420.	2.0	32
66	Progressive, potassium-sensitive epileptiform activity in hippocampal area CA3 of pilocarpine-treated rats with recurrent seizures. Epilepsy Research, 2011, 97, 92-102.	0.8	11
67	Pattern separation in the dentate gyrus: A role for the CA3 backprojection. Hippocampus, 2011, 21, 1190-1215.	0.9	109
68	Morphometry of hilar ectopic granule cells in the rat. Journal of Comparative Neurology, 2011, 519, 1196-1218.	0.9	38
69	Impairment of Select Forms of Spatial Memory and Neurotrophin-Dependent Synaptic Plasticity by Deletion of Glial Aquaporin-4. Journal of Neuroscience, 2011, 31, 6392-6397.	1.7	111
70	Seizing an opportunity: broader definitions of epilepsy may lead to better treatments. Cerebrum: the Dana Forum on Brain Science, 2010, 2010, 18.	0.1	0
71	A Rat Model of Epilepsy in Women: A Tool to Study Physiological Interactions between Endocrine Systems and Seizures. Endocrinology, 2009, 150, 4437-4442.	1.4	34
72	A role for hilar cells in pattern separation in the dentate gyrus: A computational approach. Hippocampus, 2009, 19, 321-337.	0.9	162

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73	Postnatal neurogenesis as a therapeutic target in temporal lobe epilepsy. Epilepsy Research, 2009, 85, 150-161.	0.8	70
74	Seizures and reproductive function: Insights from female rats with epilepsy. Annals of Neurology, 2008, 64, 687-697.	2.8	49
75	Estrogenâ€"Growth Factor Interactions and Their Contributions to Neurological Disorders. Headache, 2008, 48, S77-89.	1.8	59
76	Modulation of vascular endothelial growth factor (VEGF) expression in motor neurons and its electrophysiological effects. Brain Research Bulletin, 2008, 76, 36-44.	1.4	33
77	Temporal Lobe Epilepsy. , 2007, , 349-369.		16
78	Ectopic Granule Cells of the Rat Dentate Gyrus. Developmental Neuroscience, 2007, 29, 14-27.	1.0	96
79	Mossy cell axon synaptic contacts on ectopic granule cells that are born following pilocarpine-induced seizures. Neuroscience Letters, 2007, 422, 136-140.	1.0	24
80	The CA3 â€œbackprojectionâ€•to the dentate gyrus. Progress in Brain Research, 2007, 163, 627-637.	0.9	202
81	NEUROSCIENCE: Is More Neurogenesis Always Better?. Science, 2007, 315, 336-338.	6.0	109
82	Changes in hippocampal function of ovariectomized rats after sequential low doses of estradiol to simulate the preovulatory estrogen surge. European Journal of Neuroscience, 2007, 26, 2595-2612.	1.2	77
83	Response to Hussain and Perucca. Epilepsia, 2007, 48, 1031-1032.	2.6	1
84	Relevance of Seizure-Induced Neurogenesis in Animal Models of Epilepsy to the Etiology of Temporal Lobe Epilepsy. Epilepsia, 2007, 48, 33-41.	2.6	90
85	The dentate gyrus: fundamental neuroanatomical organization (dentate gyrus for dummies). Progress in Brain Research, 2007, 163, 3-790.	0.9	633
86	The neurobiology of epilepsy. Current Neurology and Neuroscience Reports, 2007, 7, 348-354.	2.0	370
87	Stereological methods reveal the robust size and stability of ectopic hilar granule cells after pilocarpine-induced status epilepticus in the adult rat. European Journal of Neuroscience, 2006, 24, 2203-2210.	1.2	98
88	The Influence of Gonadal Hormones on Neuronal Excitability, Seizures, and Epilepsy in the Female. Epilepsia, 2006, 47, 1423-1440.	2.6	209
89	Estrogen and brain-derived neurotrophic factor (BDNF) in hippocampus: Complexity of steroid hormone-growth factor interactions in the adult CNS. Frontiers in Neuroendocrinology, 2006, 27, 415-435.	2.5	256
90	Plasticity of neuropeptide Y in the dentate gyrus after seizures, and its relevance to seizure-induced neurogenesis. , 2006, , 193-211.		20

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91	Brain-Derived Neurotrophic Factor (BDNF) and the Dentate Gyrus Mossy Fibers: Implications for Epilepsy. , 2005, , 201-220.		9
92	Brain-derived Neurotrophic Factor and Epilepsyâ€"A Missing Link?. Epilepsy Currents, 2005, 5, 83-88.	0.4	94
93	Depression of Synaptic Transmission by Vascular Endothelial Growth Factor in Adult Rat Hippocampus and Evidence for Increased Efficacy after Chronic Seizures. Journal of Neuroscience, 2005, 25, 8889-8897.	1.7	117
94	Increased neurogenesis and the ectopic granule cells after intrahippocampal BDNF infusion in adult rats. Experimental Neurology, 2005, 192, 348-356.	2.0	598
95	Seizure susceptibility in intact and ovariectomized female rats treated with the convulsant pilocarpine. Experimental Neurology, 2005, 196, 73-86.	2.0	65
96	Mossy fibers are the primary source of afferent input to ectopic granule cells that are born after pilocarpine-induced seizures. Experimental Neurology, 2005, 196, 316-331.	2.0	80
97	Similarities between actions of estrogen and BDNF in the hippocampus: coincidence or clue?. Trends in Neurosciences, 2005, 28, 79-85.	4.2	163
98	Functional Implications of Seizure-Induced Neurogenesis. Advances in Experimental Medicine and Biology, 2004, 548, 192-212.	0.8	85
99	Vascular Endothelial Growth Factor (VEGF) in Seizures:. Advances in Experimental Medicine and Biology, 2004, 548, 57-68.	0.8	135
100	Neuropeptide Y is neuroproliferative for post-natal hippocampal precursor cells. Journal of Neurochemistry, 2003, 86, 646-659.	2.1	166
101	Electrophysiological Evidence of Monosynaptic Excitatory Transmission Between Granule Cells After Seizure-Induced Mossy Fiber Sprouting. Journal of Neurophysiology, 2003, 90, 2536-2547.	0.9	143
102	Hippocampal Excitability Increases during the Estrous Cycle in the Rat: A Potential Role for Brain-Derived Neurotrophic Factor. Journal of Neuroscience, 2003, 23, 11641-11652.	1.7	234
103	Review: Epilepsy as an Example of Neural Plasticity. Neuroscientist, 2002, 8, 154-173.	2.6	110
104	Spontaneous Limbic Seizures after Intrahippocampal Infusion of Brain-Derived Neurotrophic Factor. Experimental Neurology, 2002, 174, 201-214.	2.0	179
105	Structural and functional asymmetry in the normal and epileptic rat dentate gyrus. Journal of Comparative Neurology, 2002, 454, 424-439.	0.9	127
106	The parahippocampal region in temporal lobe epilepsy. , 2002, , 321-340.		8
107	BDNF and epilepsy: too much of a good thing?. Trends in Neurosciences, 2001, 24, 47-53.	4.2	401
108	Granule-Like Neurons at the Hilar/CA3 Border after Status Epilepticus and Their Synchrony with Area CA3 Pyramidal Cells: Functional Implications of Seizure-Induced Neurogenesis. Journal of Neuroscience, 2000, 20, 6144-6158.	1.7	556

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109	Epileptogenesis in the Parahippocampal Region: Parallels with the Dentate Gyrus. Annals of the New York Academy of Sciences, 2000, 911, 305-327.	1.8	33
110	Actions of Brain-Derived Neurotrophic Factor in Slices from Rats with Spontaneous Seizures and Mossy Fiber Sprouting in the Dentate Gyrus. Journal of Neuroscience, 1999, 19, 5619-5631.	1.7	109
111	Hyperexcitability in Combined Entorhinal/Hippocampal Slices of Adult Rat After Exposure to Brain-Derived Neurotrophic Factor. Journal of Neurophysiology, 1997, 78, 1082-1095.	0.9	148
112	Electrophysiological diversity of pyramidal-shaped neurons at the granule cell layer/hilus border of the rat dentate gyrus recorded in vitro. Hippocampus, 1995, 5, 287-305.	0.9	71
113	Spiny neurons of area CA3c in rat hippocampal slices have similar electrophysiological characteristics and synaptic responses despite morphological variation. Hippocampus, 1993, 3, 9-28.	0.9	43
114	Electron microscopy of intracellularly labeled neurons in the hippocampal slice preparation. Microscopy Research and Technique, 1993, 24, 67-84.	1.2	14
115	Activation of dentate hilar neurons by stimulation of the fimbria in rat hippocampal slices. Neuroscience Letters, 1993, 156, 61-66.	1.0	15
116	A Novel Excitatory and Epileptogenic Effect of Dentate Gyrus Mossy Cells in a Mouse Model of Epilepsy. SSRN Electronic Journal, 0, , .	0.4	1