

Chris J Mcbain

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

115
papers

14,187
citations

55
h-index

119
g-index

128
ext. papers

16,125
ext. citations

10.5
avg, IF

6.48
L-index

#	Paper	IF	Citations
115	A versatile viral toolkit for functional discovery in the nervous system. <i>Cell Reports Methods</i> , 2022 , 100225		0
114	Structure, Function, and Pharmacology of Glutamate Receptor Ion Channels. <i>Pharmacological Reviews</i> , 2021 , 73, 298-487	22.5	19
113	A biomarker-authenticated model of schizophrenia implicating NPTX2 loss of function. <i>Science Advances</i> , 2021 , 7, eabf6935	14.3	1
112	Timing isn't everything: opposing roles for perisomatic inhibition. <i>Neuron</i> , 2021 , 109, 911-913	13.9	0
111	NMDARs Drive the Expression of Neuropsychiatric Disorder Risk Genes Within GABAergic Interneuron Subtypes in the Juvenile Brain. <i>Frontiers in Molecular Neuroscience</i> , 2021 , 14, 712609	6.1	0
110	AMPA receptor deletion in developing MGE-derived hippocampal interneurons causes a redistribution of excitatory synapses and attenuates postnatal network oscillatory activity. <i>Scientific Reports</i> , 2020 , 10, 1333	4.9	5
109	Loss of habenular Prkar2a reduces hedonic eating and increases exercise motivation. <i>JCI Insight</i> , 2020 , 5,	9.9	4
108	Paradoxical network excitation by glutamate release from VGluT3 GABAergic interneurons. <i>ELife</i> , 2020 , 9,	8.9	11
107	Activity-dependent tuning of intrinsic excitability in mouse and human neurogliaform cells. <i>ELife</i> , 2020 , 9,	8.9	6
106	Emergence of non-canonical parvalbumin-containing interneurons in hippocampus of a murine model of type I lissencephaly. <i>ELife</i> , 2020 , 9,	8.9	3
105	Aberrant sorting of hippocampal complex pyramidal cells in type I lissencephaly alters topological innervation. <i>ELife</i> , 2020 , 9,	8.9	1
104	Optimizing Nervous System-Specific Gene Targeting with Cre Driver Lines: Prevalence of Germline Recombination and Influencing Factors. <i>Neuron</i> , 2020 , 106, 37-65.e5	13.9	43
103	Life-long epigenetic programming of cortical architecture by maternal Western diet during pregnancy. <i>Molecular Psychiatry</i> , 2020 , 25, 22-36	15.1	14
102	Vesicle Pools of Memory at Mossy Fiber Synapses. <i>Neuron</i> , 2020 , 107, 395-396	13.9	
101	Intrinsic electrophysiological properties predict variability in morphology and connectivity among striatal Parvalbumin-expressing Pthlh-cells. <i>Scientific Reports</i> , 2020 , 10, 15680	4.9	2
100	Viral manipulation of functionally distinct interneurons in mice, non-human primates and humans. <i>Nature Neuroscience</i> , 2020 , 23, 1629-1636	25.5	44
99	Translatome Analyses Using Conditional Ribosomal Tagging in GABAergic Interneurons and Other Sparse Cell Types. <i>Current Protocols in Neuroscience</i> , 2020 , 92, e93	2.7	2

98	Exploring the Interneuron Canopy Atop the Impenetrable Jungle. <i>Trends in Neurosciences</i> , 2019 , 42, 237-239	13.3	
97	Neocortical Projection Neurons Instruct Inhibitory Interneuron Circuit Development in a Lineage-Dependent Manner. <i>Neuron</i> , 2019 , 102, 960-975.e6	13.9	24
96	The Role of AMPARs in the Maturation and Integration of Caudal Ganglionic Eminence-Derived Interneurons into Developing Hippocampal Microcircuits. <i>Scientific Reports</i> , 2019 , 9, 5435	4.9	7
95	Shisa7 is a GABA receptor auxiliary subunit controlling benzodiazepine actions. <i>Science</i> , 2019 , 366, 246-250.3	33.3	36
94	Persistent inhibitory circuit defects and disrupted social behaviour following in utero exogenous cannabinoid exposure. <i>Molecular Psychiatry</i> , 2017 , 22, 56-67	15.1	42
93	Molecular Dissection of Neuroligin 2 and Slitrk3 Reveals an Essential Framework for GABAergic Synapse Development. <i>Neuron</i> , 2017 , 96, 808-826.e8	13.9	44
92	Hippocampal GABAergic Inhibitory Interneurons. <i>Physiological Reviews</i> , 2017 , 97, 1619-1747	47.9	323
91	Neto Auxiliary Subunits Regulate Interneuron Somatodendritic and Presynaptic Kainate Receptors to Control Network Inhibition. <i>Cell Reports</i> , 2017 , 20, 2156-2168	10.6	29
90	Afferent specific role of NMDA receptors for the circuit integration of hippocampal neurogliaform cells. <i>Nature Communications</i> , 2017 , 8, 152	17.4	25
89	NPTX2 and cognitive dysfunction in Alzheimer's Disease. <i>ELife</i> , 2017 , 6,	8.9	82
88	Functional Differentiation of Cholecystokinin-Containing Interneurons Destined for the Cerebral Cortex. <i>Cerebral Cortex</i> , 2017 , 27, 2453-2468	5.1	12
87	GluN2D-Containing N-methyl-d-Aspartate Receptors Mediate Synaptic Transmission in Hippocampal Interneurons and Regulate Interneuron Activity. <i>Molecular Pharmacology</i> , 2016 , 90, 689-702.3	4.3	53
86	Diverse roles for ionotropic glutamate receptors on inhibitory interneurons in developing and adult brain. <i>Journal of Physiology</i> , 2016 , 594, 5471-90	3.9	51
85	The Hyperpolarization-Activated Cation Current Ih: The Missing Link Connecting Cannabinoids to Cognition. <i>Neuron</i> , 2016 , 89, 889-91	13.9	4
84	Interneurons Differentially Contribute to Spontaneous Network Activity in the Developing Hippocampus Dependent on Their Embryonic Lineage. <i>Journal of Neuroscience</i> , 2016 , 36, 2646-62	6.6	25
83	Fast gamma oscillations are generated intrinsically in CA1 without the involvement of fast-spiking basket cells. <i>Journal of Neuroscience</i> , 2015 , 35, 3616-24	6.6	36
82	Neurogliaform cells in cortical circuits. <i>Nature Reviews Neuroscience</i> , 2015 , 16, 458-68	13.5	80
81	Navigating the circuitry of the brain's GPS system: Future challenges for neurophysiologists. <i>Hippocampus</i> , 2015 , 25, 736-43	3.5	6

80	Pentraxins coordinate excitatory synapse maturation and circuit integration of parvalbumin interneurons. <i>Neuron</i> , 2015 , 85, 1257-72	13.9	112
79	Neto auxiliary protein interactions regulate kainate and NMDA receptor subunit localization at mossy fiber-CA3 pyramidal cell synapses. <i>Journal of Neuroscience</i> , 2014 , 34, 622-8	6.6	42
78	The emerging role of GABAB receptors as regulators of network dynamics: fast actions from a GABA receptor?. <i>Current Opinion in Neurobiology</i> , 2014 , 26, 15-21	7.6	39
77	Behavioral state-dependent modulation of distinct interneuron subtypes and consequences for circuit function. <i>Current Opinion in Neurobiology</i> , 2014 , 29, 118-25	7.6	35
76	5-Hydroxytryptamine1A receptor-activation hyperpolarizes pyramidal cells and suppresses hippocampal gamma oscillations via Kir3 channel activation. <i>Journal of Physiology</i> , 2014 , 592, 4187-99	3.9	31
75	Developmental origin dictates interneuron AMPA and NMDA receptor subunit composition and plasticity. <i>Nature Neuroscience</i> , 2013 , 16, 1032-41	25.5	71
74	Dopamine suppresses persistent network activity via D(1) -like dopamine receptors in rat medial entorhinal cortex. <i>European Journal of Neuroscience</i> , 2013 , 37, 1242-7	3.5	16
73	Dual origins of functionally distinct O-LM interneurons revealed by differential 5-HT(3A)R expression. <i>Nature Neuroscience</i> , 2013 , 16, 1598-607	25.5	81
72	Neurogliaform cells dynamically regulate somatosensory integration via synapse-specific modulation. <i>Nature Neuroscience</i> , 2013 , 16, 13-5	25.5	46
71	New insights into the classification and nomenclature of cortical GABAergic interneurons. <i>Nature Reviews Neuroscience</i> , 2013 , 14, 202-16	13.5	532
70	Distinct roles of GABAB1a- and GABAB1b-containing GABAB receptors in spontaneous and evoked termination of persistent cortical activity. <i>Journal of Physiology</i> , 2013 , 591, 835-43	3.9	39
69	Neuroscience. Decoding the neuronal Tower of Babel. <i>Science</i> , 2012 , 338, 482-3	33.3	1
68	Cortical inhibitory neuron basket cells: from circuit function to disruption. <i>Journal of Physiology</i> , 2012 , 590, 667	3.9	
67	An update on cholinergic regulation of cholecystokinin-expressing basket cells. <i>Journal of Physiology</i> , 2012 , 590, 695-702	3.9	10
66	Cholinergic modulation amplifies the intrinsic oscillatory properties of CA1 hippocampal cholecystokinin-positive interneurons. <i>Journal of Physiology</i> , 2011 , 589, 609-27	3.9	44
65	Neto1 is an auxiliary subunit of native synaptic kainate receptors. <i>Journal of Neuroscience</i> , 2011 , 31, 10006-18	6.6	70
64	A blueprint for the spatiotemporal origins of mouse hippocampal interneuron diversity. <i>Journal of Neuroscience</i> , 2011 , 31, 10948-70	6.6	210
63	Narp regulates homeostatic scaling of excitatory synapses on parvalbumin-expressing interneurons. <i>Nature Neuroscience</i> , 2010 , 13, 1090-7	25.5	190

62	Common origins of hippocampal Ivy and nitric oxide synthase expressing neurogliaform cells. <i>Journal of Neuroscience</i> , 2010 , 30, 2165-76	6.6	120
61	Presynaptic kainate receptor activation preserves asynchronous GABA release despite the reduction in synchronous release from hippocampal cholecystokinin interneurons. <i>Journal of Neuroscience</i> , 2010 , 30, 11202-9	6.6	36
60	M3 muscarinic acetylcholine receptor expression confers differential cholinergic modulation to neurochemically distinct hippocampal basket cell subtypes. <i>Journal of Neuroscience</i> , 2010 , 30, 6011-24	6.6	77
59	Control of CA3 output by feedforward inhibition despite developmental changes in the excitation-inhibition balance. <i>Journal of Neuroscience</i> , 2010 , 30, 15628-37	6.6	45
58	Glutamate receptor ion channels: structure, regulation, and function. <i>Pharmacological Reviews</i> , 2010 , 62, 405-96	22.5	2406
57	Selective expression of ErbB4 in interneurons, but not pyramidal cells, of the rodent hippocampus. <i>Journal of Neuroscience</i> , 2009 , 29, 12255-64	6.6	164
56	Asynchronous transmitter release from cholecystokinin-containing inhibitory interneurons is widespread and target-cell independent. <i>Journal of Neuroscience</i> , 2009 , 29, 11112-22	6.6	125
55	Presynaptic plasticity: targeted control of inhibitory networks. <i>Current Opinion in Neurobiology</i> , 2009 , 19, 254-62	7.6	55
54	Target-cell-dependent plasticity within the mossy fibre-CA3 circuit reveals compartmentalized regulation of presynaptic function at divergent release sites. <i>Journal of Physiology</i> , 2008 , 586, 1495-502	3.9	45
53	State-dependent cAMP sensitivity of presynaptic function underlies metaplasticity in a hippocampal feedforward inhibitory circuit. <i>Neuron</i> , 2008 , 60, 980-7	13.9	57
52	Differential mechanisms of transmission and plasticity at mossy fiber synapses. <i>Progress in Brain Research</i> , 2008 , 169, 225-40	2.9	64
51	Differential regulation at functionally divergent release sites along a common axon. <i>Current Opinion in Neurobiology</i> , 2007 , 17, 366-73	7.6	250
50	Developmental expression of Ca ²⁺ -permeable AMPA receptors underlies depolarization-induced long-term depression at mossy fiber CA3 pyramid synapses. <i>Journal of Neuroscience</i> , 2007 , 27, 11651-62	6.6	85
49	The role of the GluR2 subunit in AMPA receptor function and synaptic plasticity. <i>Neuron</i> , 2007 , 54, 859-71	13.9	798
48	GABAergic input onto CA3 hippocampal interneurons remains shunting throughout development. <i>Journal of Neuroscience</i> , 2006 , 26, 11720-5	6.6	112
47	Somatodendritic Kv7/KCNQ/M channels control interspike interval in hippocampal interneurons. <i>Journal of Neuroscience</i> , 2006 , 26, 12325-38	6.6	126
46	TASK-like conductances are present within hippocampal CA1 stratum oriens interneuron subpopulations. <i>Journal of Neuroscience</i> , 2006 , 26, 7362-7	6.6	36
45	Compartmentalized Ca ²⁺ channel regulation at divergent mossy-fiber release sites underlies target cell-dependent plasticity. <i>Neuron</i> , 2006 , 52, 497-510	13.9	97

44	Cell type-specific dependence of muscarinic signalling in mouse hippocampal stratum oriens interneurons. <i>Journal of Physiology</i> , 2006 , 570, 595-610	3.9	93
43	Muscarinic receptor activation tunes mouse stratum oriens interneurons to amplify spike reliability. <i>Journal of Physiology</i> , 2006 , 571, 555-62	3.9	62
42	mGluR7 is a metaplastic switch controlling bidirectional plasticity of feedforward inhibition. <i>Neuron</i> , 2005 , 46, 89-102	13.9	158
41	Distinct roles for the kainate receptor subunits GluR5 and GluR6 in kainate-induced hippocampal gamma oscillations. <i>Journal of Neuroscience</i> , 2004 , 24, 9658-68	6.6	173
40	Two Loci of expression for long-term depression at hippocampal mossy fiber-interneuron synapses. <i>Journal of Neuroscience</i> , 2004 , 24, 2112-21	6.6	79
39	Quantal transmission at mossy fibre targets in the CA3 region of the rat hippocampus. <i>Journal of Physiology</i> , 2004 , 554, 175-93	3.9	97
38	Depolarization-induced long-term depression at hippocampal mossy fiber-CA3 pyramidal neuron synapses. <i>Journal of Neuroscience</i> , 2003 , 23, 9786-95	6.6	48
37	GABA B receptor modulation of excitatory and inhibitory synaptic transmission onto rat CA3 hippocampal interneurons. <i>Journal of Physiology</i> , 2003 , 546, 439-53	3.9	96
36	Interneuron diversity series: containing the detonation--feedforward inhibition in the CA3 hippocampus. <i>Trends in Neurosciences</i> , 2003 , 26, 631-40	13.3	170
35	Transient compartmentalization of interneuron dendrites. <i>Journal of Physiology</i> , 2003 , 551, 1	3.9	1
34	Developmental expression of potassium-channel subunit Kv3.2 within subpopulations of mouse hippocampal inhibitory interneurons. <i>Hippocampus</i> , 2002 , 12, 137-48	3.5	59
33	Distinct NMDA receptors provide differential modes of transmission at mossy fiber-interneuron synapses. <i>Neuron</i> , 2002 , 33, 921-33	13.9	130
32	Activation of kinetically distinct synaptic conductances on inhibitory interneurons by electrotonically overlapping afferents. <i>Neuron</i> , 2002 , 35, 161-71	13.9	32
31	Interneurons unbound. <i>Nature Reviews Neuroscience</i> , 2001 , 2, 11-23	13.5	548
30	Kv3 channels: voltage-gated K ⁺ channels designed for high-frequency repetitive firing. <i>Trends in Neurosciences</i> , 2001 , 24, 517-26	13.3	568
29	H2 histamine receptor-phosphorylation of Kv3.2 modulates interneuron fast spiking. <i>Nature Neuroscience</i> , 2000 , 3, 791-8	25.5	90
28	Target-specific expression of pre- and postsynaptic mechanisms. <i>Journal of Physiology</i> , 2000 , 525 Pt 1, 41-51	3.9	70
27	Frequency-dependent regulation of rat hippocampal somato-dendritic excitability by the K ⁺ channel subunit Kv2.1. <i>Journal of Physiology</i> , 2000 , 522 Pt 1, 19-31	3.9	165

26	Snap-25 is polarized to axons and abundant along the axolemma: an immunogold study of intact neurons. <i>Journal of Neurocytology</i> , 2000 , 29, 67-77		51
25	Differential mechanisms of transmission at three types of mossy fiber synapse. <i>Journal of Neuroscience</i> , 2000 , 20, 8279-89	6.6	213
24	Hippocampal abnormalities and enhanced excitability in a murine model of human lissencephaly. <i>Journal of Neuroscience</i> , 2000 , 20, 2439-50	6.6	121
23	Glutamatergic synapses onto hippocampal interneurons: precision timing without lasting plasticity. <i>Trends in Neurosciences</i> , 1999 , 22, 228-35	13.3	90
22	Graded reduction of Pafah1b1 (Lis1) activity results in neuronal migration defects and early embryonic lethality. <i>Nature Genetics</i> , 1998 , 19, 333-9	36.3	506
21	Afferent-specific innervation of two distinct AMPA receptor subtypes on single hippocampal interneurons. <i>Nature Neuroscience</i> , 1998 , 1, 572-8	25.5	218
20	Target-specific expression of presynaptic mossy fiber plasticity. <i>Science</i> , 1998 , 279, 1368-70	33.3	192
19	Synaptic plasticity in hippocampal interneurons? A commentary. <i>Canadian Journal of Physiology and Pharmacology</i> , 1997 , 75, 488-494	2.4	20
18	Synaptic plasticity in hippocampal interneurons? A commentary. <i>Canadian Journal of Physiology and Pharmacology</i> , 1997 , 75, 488-94	2.4	8
17	The hyperpolarization-activated current (I _h) and its contribution to pacemaker activity in rat CA1 hippocampal stratum oriens-alveus interneurons. <i>Journal of Physiology</i> , 1996 , 497 (Pt 1), 119-30	3.9	374
16	Long-term potentiation in distinct subtypes of hippocampal nonpyramidal neurons. <i>Journal of Neuroscience</i> , 1996 , 16, 5334-43	6.6	121
15	Developmental expression and functional characterization of the potassium-channel subunit Kv3.1b in parvalbumin-containing interneurons of the rat hippocampus. <i>Journal of Neuroscience</i> , 1996 , 16, 506-18	6.6	194
14	Two temporally overlapping "delayed-rectifiers" determine the voltage-dependent potassium current phenotype in cultured hippocampal interneurons. <i>Journal of Neurophysiology</i> , 1996 , 76, 1477-90 ^{3,2}		19
13	Hippocampal inhibitory neuron activity in the elevated potassium model of epilepsy. <i>Journal of Neurophysiology</i> , 1995 , 73, 2853-63	3.2	21
12	Passive propagation of LTD to stratum oriens-alveus inhibitory neurons modulates the temporoammonic input to the hippocampal CA1 region. <i>Neuron</i> , 1995 , 15, 137-45	13.9	157
11	Potassium conductances underlying repolarization and after-hyperpolarization in rat CA1 hippocampal interneurons. <i>Journal of Physiology</i> , 1995 , 488 (Pt 3), 661-72	3.9	157
10	Voltage-gated potassium currents in stratum oriens-alveus inhibitory neurons of the rat CA1 hippocampus. <i>Journal of Physiology</i> , 1995 , 488 (Pt 3), 647-60	3.9	58
9	Activation of metabotropic glutamate receptors differentially affects two classes of hippocampal interneurons and potentiates excitatory synaptic transmission. <i>Journal of Neuroscience</i> , 1994 , 14, 4433-45 ^{6,6}	6.6	265

8	Hippocampal inhibitory neuron activity in the elevated potassium model of epilepsy. <i>Journal of Neurophysiology</i> , 1994 , 72, 2853-63	3.2	48
7	N-methyl-D-aspartic acid receptor structure and function. <i>Physiological Reviews</i> , 1994 , 74, 723-60	47.9	835
6	Heterogeneity of synaptic glutamate receptors on CA3 stratum radiatum interneurons of rat hippocampus. <i>Journal of Physiology</i> , 1993 , 462, 373-92	3.9	160
5	CNQX increases spontaneous inhibitory input to CA3 pyramidal neurones in neonatal rat hippocampal slices. <i>Brain Research</i> , 1992 , 592, 255-60	3.7	41
4	Regional variation of extracellular space in the hippocampus. <i>Science</i> , 1990 , 249, 674-7	33.3	239
3	Structural requirements for activation of the glycine coagonist site of N-methyl-D-aspartate receptors expressed in <i>Xenopus</i> oocytes. <i>Molecular Pharmacology</i> , 1989 , 36, 556-65	4.3	117
2	NMDAR-mediated transcriptional control of gene expression during the development of medial ganglionic eminence-derived interneurons		1
1	Hippocampal CA1 pyramidal cells do not receive monosynaptic input from thalamic nucleus reuniens		2