Thomas J Mchugh

List of Publications by Year
in descending order

72 papers	7,337 citations	117625 34 h-index	102487 66 g-index
84 all docs	84 docs citations	84 times ranked	9311 citing authors

#	Article	IF	Citations
1	K⁺ efflux through postsynaptic <scp>NMDA</scp> receptors suppresses local astrocytic glutamate uptake. Glia, 2022, 70, 961-974.	4.9	14
2	The impact of stress on the hippocampal spatial code. Trends in Neurosciences, 2022, 45, 120-132.	8.6	12
3	Amylin-Calcitonin receptor signaling in the medial preoptic area mediates affiliative social behaviors in female mice. Nature Communications, 2022, 13, 709.	12.8	19
4	Local circuit allowing hypothalamic control of hippocampal area CA2 activity and consequences for CA1. ELife, 2021, 10, .	6.0	22
5	Stress enhances hippocampal neuronal synchrony and alters ripple-spike interaction. Neurobiology of Stress, 2021, 14, 100327.	4.0	15
6	Brain-specific heterozygous loss-of-function of ATP2A2, endoplasmic reticulum Ca2+ pump responsible for Darierâ€™s disease, causes behavioral abnormalities and a hyper-dopaminergic state. Human Molecular Genetics, 2021, 30, 1762-1772.	2.9	18
7	Calcitonin receptor signaling in the medial preoptic area enables risk-taking maternal care. Cell Reports, 2021, 35, 109204.	6.4	32
8	Differential Impact of Acute and Chronic Stress on CA1 Spatial Coding and Gamma Oscillations. Frontiers in Behavioral Neuroscience, 2021, 15, 710725.	2.0	11
9	CA2 inhibition reduces the precision of hippocampal assembly reactivation. Neuron, 2021, 109, 3674-3687.e7.	8.1	14
10	Lateralization of CA1 assemblies in the absence of CA3 input. Nature Communications, 2021, 12, 6114.	12.8	9
11	Stepwise synaptic plasticity events drive the early phase of memory consolidation. Science, 2021, 374, 857-863.	12.6	67
12	CA2: A Highly Connected Intrahippocampal Relay. Annual Review of Neuroscience, 2020, 43, 55-72.	10.7	33
13	A hypothalamic novelty signal modulates hippocampal memory. Nature, 2020, 586, 270-274.	27.8	121
14	An Integrated Index: Engrams, Place Cells, and Hippocampal Memory. Neuron, 2020, 107, 805-820.	8.1	86
15	Diffusible GRAPHIC to visualize morphology of cells after specific cellâ€“cell contact. Scientific Reports, 2020, 10, 14437.	3.3	8
16	Further-reaching optogenetics. Nature Biomedical Engineering, 2020, 4, 1028-1029.	22.5	4
17	Two Functionally Distinct Serotonergic Projections into Hippocampus. Journal of Neuroscience, 2020, 40, 4936-4944.	3.6	29
18	Structure of cortical network activity across natural wake and sleep states in mice. PLoS ONE, 2020, 15, e0233561.	2.5	2

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19	Sparse Activity of Hippocampal Adult-Born Neurons during REM Sleep Is Necessary for Memory Consolidation. Neuron, 2020, 107, 552-565.e10.	8.1	73
20	Technologies advancing neuroscience. Neuroscience Research, 2020, 152, 1-2.	1.9	1
21	Distinct temporal integration of noradrenaline signaling by astrocytic second messengers during vigilance. Nature Communications, 2020, 11, 471.	12.8	102
22	The hippocampus encodes delay and value information during delay-discounting decision making. ELife, 2020, 9, .	6.0	18
23	Genetically Encoded Fluorescent Indicator GRAPHIC Delineates Intercellular Connections. IScience, 2019, 15, 28-38.	4.1	21
24	Gamma Entrainment Binds Higher-Order Brain Regions and Offers Neuroprotection. Neuron, 2019, 102, 929-943.e8.	8.1	252
25	Visualization of Intraâ€neuronal Motor Protein Transport through Upconversion Microscopy. Angewandte Chemie - International Edition, 2019, 58, 9262-9268.	13.8	52
26	Visualization of Intraâ€neuronal Motor Protein Transport through Upconversion Microscopy. Angewandte Chemie, 2019, 131, 9363-9369.	2.0	34
27	Memory: Sequences Take Time. Current Biology, 2019, 29, R158-R160.	3.9	0
28	Routing Hippocampal Information Flow through Parvalbumin Interneuron Plasticity in Area CA2. Cell Reports, 2019, 27, 86-98.e3.	6.4	34
29	Physiological Signature of Memory Age in the Prefrontal-Hippocampal Circuit. Cell Reports, 2019, 29, 3835-3846.e5.	6.4	30
30	Near-infrared deep brain stimulation via upconversion nanoparticle-mediated optogenetics. , 2019, , .		0
31	Single-cell bioluminescence imaging of deep tissue in freely moving animals. Science, 2018, 359, 935-939.	12.6	319
32	A role for CA3 in social recognition memory. Behavioural Brain Research, 2018, 354, 22-30.	2.2	78
33	Near-infrared deep brain stimulation via upconversion nanoparticleâ€"mediated optogenetics. Science, 2018, 359, 679-684.	12.6	856
34	The Hippocampal Engram as a Memory Index. Journal of Experimental Neuroscience, 2018, 12, 117906951881594.	2.3	30
35	A dopaminergic switch for fear to safety transitions. Nature Communications, 2018, 9, 2483.	12.8	128
36	Alterations of in vivo CA1 network activity in Dp(16)1Yey Down syndrome model mice. ELife, 2018, 7, .	6.0	21

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37	The hippocampal engram maps experience but not place. Science, 2018, 361, 392-397.	12.6	158
38	Inducible Knockout of the Cyclin-Dependent Kinase 5 Activator p35 Alters Hippocampal Spatial Coding and Neuronal Excitability. Frontiers in Cellular Neuroscience, 2018, 12, 138.	3.7	4
39	Altered hippocampal replay is associated with memory impairment in mice heterozygous for the Scn2a gene. Nature Neuroscience, 2018, 21, 996-1003.	14.8	60
40	Schizophrenia-like phenotypes in mice with NMDA receptor ablation in intralaminar thalamic nucleus cells and gene therapy-based reversal in adults. Translational Psychiatry, 2017, 7, e1047-e1047.	4.8	21
41	Chronic Loss of CA2 Transmission Leads to Hippocampal Hyperexcitability. Neuron, 2017, 94, 642-655.e9.	8.1	92
42	Noradrenergic modulation of evoked dopamine release and pH shift in the mouse dorsal hippocampus and ventral striatum. Brain Research, 2017, 1657, 74-86.	2.2	7
43	Orexin modulates behavioral fear expression through the locus coeruleus. Nature Communications, 2017, 8, 1606.	12.8	89
44	Top-down cortical input during NREM sleep consolidates perceptual memory. Science, 2016, 352, 1315-1318.	12.6	120
45	Silencing CA3 disrupts temporal coding in the CA1 ensemble. Nature Neuroscience, 2016, 19, 945-951.	14.8	101
46	CA3 Synaptic Silencing Attenuates Kainic Acid-Induced Seizures and Hippocampal Network Oscillations. ENeuro, 2016, 3, ENEURO.0003-16.2016.	1.9	27
47	Distinct preopticâ€•<scp>BST</scp> nuclei dissociate paternal andÂinfanticidal behavior in mice. EMBO Journal, 2015, 34, 2652-2670.	7.8	101
48	A video based feedback system for control of an active commutator during behavioral physiology. Molecular Brain, 2015, 8, 61.	2.6	1
49	The dynamic impact of repeated stress on the hippocampal spatial map. Hippocampus, 2015, 25, 38-50.	1.9	32
50	Inhibiting the Activity of CA1 Hippocampal Neurons Prevents the Recall of Contextual Fear Memory in Inducible ArchT Transgenic Mice. PLoS ONE, 2015, 10, e0130163.	2.5	11
51	The Hippocampal CA2 Ensemble Is Sensitive to Contextual Change. Journal of Neuroscience, 2014, 34, 3056-3066.	3.6	77
52	Differential Contribution of Hippocampal Subfields to Components of Associative Taste Learning. Journal of Neuroscience, 2014, 34, 11007-11015.	3.6	30
53	Retrograde Synaptic Signaling Mediated by K+ Efflux through Postsynaptic NMDA Receptors. Cell Reports, 2013, 5, 941-951.	6.4	68
54	The Synchronous Activity of Lateral Habenular Neurons Is Essential for Regulating Hippocampal Theta Oscillation. Journal of Neuroscience, 2013, 33, 8909-8921.	3.6	69

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55	Backpropagating Action Potentials Enable Detection of Extrasynaptic Glutamate by NMDA Receptors. Cell Reports, 2012, 1, 495-505.	6.4	54
56	Young Dentate Granule Cells Mediate Pattern Separation, whereas Old Granule Cells Facilitate Pattern Completion. Cell, 2012, 149, 188-201.	28.9	710
57	NMDA signaling in CA1 mediates selectively the spatial component of episodic memory. Learning and Memory, 2012, 19, 164-169.	1.3	41
58	Memory Circuits in the Hippocampus. , 2012, , 307-342.		0
59	Phasic reward responses in the monkey striatum as detected by voltammetry with diamond microelectrodes. Neuroscience Research, 2011, 71, 49-62.	1.9	48
60	Updating hippocampal representations: CA2 joins the circuit. Trends in Neurosciences, 2011, 34, 526-535.	8.6	112
61	Presynaptic m1 muscarinic receptors are necessary for mGluR long-term depression in the hippocampus. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 1618-1623.	7.1	52
62	CA3 NMDA receptors are required for the rapid formation of a salient contextual representation. Hippocampus, 2009, 19, 1153-1158.	1.9	54
63	Hippocampal CA3 Output Is Crucial for Ripple-Associated Reactivation and Consolidation of Memory. Neuron, 2009, 62, 781-787.	8.1	239
64	The Ins and Outs of Hippocampal Circuits. Neuron, 2008, 57, 175-177.	8.1	7
65	Transgenic Inhibition of Synaptic Transmission Reveals Role of CA3 Output in Hippocampal Learning. Science, 2008, 319, 1260-1264.	12.6	414
66	Molecular and Circuit Mechanisms for Hippocampal Learning. , 2008, , 13-19.		1
67	Spatial exploration is required for the formation of contextual fear memory.. Behavioral Neuroscience, 2007, 121, 335-339.	1.2	32
68	Dentate Gyrus NMDA Receptors Mediate Rapid Pattern Separation in the Hippocampal Network. Science, 2007, 317, 94-99.	12.6	841
69	NMDA receptors, place cells and hippocampal spatial memory. Nature Reviews Neuroscience, 2004, 5, 361-372.	10.2	519
70	Impaired Hippocampal Representation of Space in CA1-Specific NMDAR1 Knockout Mice. Cell, 1996, 87, 1339-1349.	28.9	561
71	Differential Contributions of Hippocampus and mPFC to Cost-Benefit Valuation. SSRN Electronic Journal, 0, , .	0.4	0
72	Physiological Signature of Memory Age in the Prefrontal-Hippocampal Circuit. SSRN Electronic Journal, 0, , .	0.4	0