Wen-Biao Gan

List of Publications by Year
in descending order

88	19,066	47	85
papers	citations	h-index	g-index
		46918	53109

90	90	90	20713
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High resolution ultrasonic neural modulation observed via inÂvivo two-photon calcium imaging. Brain Stimulation, 2022, 15, 190-196.	0.7	13
2	Basic science under threat: Lessons from the Skirball Institute. Cell, 2022, 185, 755-758.	13.5	0
3	Increased neuronal activity in motor cortex reveals prominent calcium dyshomeostasis in tauopathy mice. Neurobiology of Disease, 2021, 147, 105165.	2.1	7
4	Specific depletion of resident microglia in the early stage of stroke reduces cerebral ischemic damage. Journal of Neuroinflammation, 2021, 18, 81.	3.1	48
5	BDNF produced by cerebral microglia promotes cortical plasticity and pain hypersensitivity after peripheral nerve injury. PLoS Biology, 2021, 19, e3001337.	2.6	43
6	Clear optically matched panoramic access channel technique (COMPACT) for large-volume deep brain imaging. Nature Methods, 2021, 18, 959-964.	9.0	9
7	Sleep promotes the formation of dendritic filopodia and spines near learning-inactive existing spines. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	5
8	REM sleep promotes experience-dependent dendritic spine elimination in the mouse cortex. Nature Communications, 2020, 11, 4819.	5.8	72
9	Activity and TREM2â€dependent phagocytic cup formation by microglia in the mouse cortex. Alzheimer's and Dementia, 2020, 16, e045504.	0.4	0
10	Efficient Position Decoding Methods Based on Fluorescence Calcium Imaging in the Mouse Hippocampus. Neural Computation, 2020, 32, 1144-1167.	1.3	12
11	Imaging neuronal activity in the central and peripheral nervous systems using new Thy1.2-GCaMP6 transgenic mouse lines. Journal of Neuroscience Methods, 2020, 334, 108535.	1.3	21
12	Contrast gain through simple illumination control for wide-field fluorescence imaging of scattering samples. Optics Express, 2020, 28, 2326.	1.7	1
13	Long-range remote focusing by image-plane aberration correction. Optics Express, 2020, 28, 34008.	1.7	5
14	Line scanning mechanical streak camera for phosphorescence lifetime imaging. Optics Express, 2020, 28, 26717.	1.7	3
15	Pupil plane actuated remote focusing for rapid focal depth control. Optics Express, 2020, 28, 26407.	1.7	3
16	Jitter suppression for resonant galvo based high-throughput laser scanning systems. Optics Express, 2020, 28, 26414.	1.7	7
17	Long-term imaging of dorsal root ganglia in awake behaving mice. Nature Communications, 2019, 10, 3087.	5.8	45
18	Fear conditioning and extinction induce opposing changes in dendritic spine remodeling and somatic activity of layer 5 pyramidal neurons in the mouse motor cortex. Scientific Reports, 2019, 9, 4619.	1.6	21

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19	Somatostatin-Expressing Interneurons Enable and Maintain Learning-Dependent Sequential Activation of Pyramidal Neurons. Neuron, 2019, 102, 202-216.e7.	3.8	112
20	Brain activity regulates loose coupling between mitochondrial and cytosolic Ca2+ transients. Nature Communications, 2019, 10, 5277.	5.8	29
21	Large-scale femtosecond holography for near simultaneous optogenetic neural modulation. Optics Express, 2019, 27, 32228.	1.7	11
22	The Phosphodiesterase 9 Inhibitor PFâ€04449613 Promotes Dendritic Spine Formation and Performance Improvement after Motor Learning. Developmental Neurobiology, 2018, 78, 859-872.	1.5	3
23	Neuropathic Pain Causes Pyramidal Neuronal Hyperactivity in the Anterior Cingulate Cortex. Frontiers in Cellular Neuroscience, 2018, 12, 107.	1.8	73
24	Fear extinction reverses dendritic spine formation induced by fear conditioning in the mouse auditory cortex. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9306-9311.	3.3	61
25	REM sleep selectively prunes and maintains new synapses in development and learning. Nature Neuroscience, 2017, 20, 427-437.	7.1	375
26	Microglial NFÎºB-TNFÎ± hyperactivation induces obsessiveâ€"compulsive behavior in mouse models of progranulin-deficient frontotemporal dementia. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5029-5034.	3.3	96
27	Monocular deprivation induces dendritic spine elimination in the developing mouse visual cortex. Scientific Reports, 2017, 7, 4977.	1.6	28
28	Activation of cortical somatostatin interneurons prevents the development of neuropathic pain. Nature Neuroscience, 2017, 20, 1122-1132.	7.1	108
29	Microglia limit the expansion of Î²-amyloid plaques in a mouse model of Alzheimerâ€™s disease. Molecular Neurodegeneration, 2017, 12, 47.	4.4	88
30	Abnormal dendritic calcium activity and synaptic depotentiation occur early in a mouse model of Alzheimerâ€™s disease. Molecular Neurodegeneration, 2017, 12, 86.	4.4	37
31	Requirement for Microglia for the Maintenance of Synaptic Function and Integrity in the Mature Retina. Journal of Neuroscience, 2016, 36, 2827-2842.	1.7	179
32	Microglia and monocytes synergistically promote the transition from acute to chronic pain after nerve injury. Nature Communications, 2016, 7, 12029.	5.8	245
33	Experienceâ€dependent plasticity of dendritic spines of layer 2/3 pyramidal neurons in the mouse cortex. Developmental Neurobiology, 2016, 76, 277-286.	1.5	66
34	Longâ€term stability of axonal boutons in the mouse barrel cortex. Developmental Neurobiology, 2016, 76, 252-261.	1.5	39
35	Chitooligosaccharide Inhibits Scar Formation and Enhances Functional Recovery in a Mouse Model of Sciatic Nerve Injury. Molecular Neurobiology, 2016, 53, 2249-2257.	1.9	11
36	Microglial phagocytosis of living photoreceptors contributes to inherited retinal degeneration. EMBO Molecular Medicine, 2015, 7, 1179-1197.	3.3	340

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37	Two-photon microscopy as a tool to investigate the therapeutic time window of methylprednisolone in a mouse spinal cord injury model. Restorative Neurology and Neuroscience, 2015, 33, 291-300.	0.4	5
38	In Vivo Two-Photon Imaging of Axonal Dieback, Blood Flow and Calcium Influx withMethylprednisolone Therapy after Spinal Cord Injury. Scientific Reports, 2015, 5, 9691.	1.6	48
39	Branch-specific dendritic Ca2+ spikes cause persistent synaptic plasticity. Nature, 2015, 520, 180-185.	13.7	411
40	Remodeling the Dendritic Spines in the Hindlimb Representation of the Sensory Cortex after Spinal Cord Hemisection in Mice. PLoS ONE, 2015, 10, e0132077.	1.1	9
41	Imaging of Mitochondrial Dynamics in Motor and Sensory Axons of Living Mice. Methods in Enzymology, 2014, 547, 97-110.	0.4	12
42	Abnormal mitochondrial transport and morphology are common pathological denominators in SOD1 and TDP43 ALS mouse models. Human Molecular Genetics, 2014, 23, 1413-1424.	1.4	274
43	Antipsychotics Activate mTORC1-Dependent Translation to Enhance Neuronal Morphological Complexity. Science Signaling, 2014, 7, ra4.	1.6	62
44	Sleep promotes branch-specific formation of dendritic spines after learning. Science, 2014, 344, 1173-1178.	6.0	490
45	Two-Photon-Excited Fluorescence Microscopy as a Tool to Investigate the Efficacy of Methylprednisolone in a Mouse Spinal Cord Injury Model. Spine, 2014, 39, E493-E499.	1.0	8
46	Microglia Promote Learning-Dependent Synapse Formation through Brain-Derived Neurotrophic Factor. Cell, 2013, 155, 1596-1609.	13.5	2,013
47	An optimized fluorescent probe for visualizing glutamate neurotransmission. Nature Methods, 2013, 10, 162-170.	9.0	827
48	Circadian glucocorticoid oscillations promote learning-dependent synapse formation and maintenance. Nature Neuroscience, 2013, 16, 698-705.	7.1	308
49	Transcranial Two-Photon Imaging of Synaptic Structures in the Cortex of Awake Head-Restrained Mice. Methods in Molecular Biology, 2013, 1010, 35-43.	0.4	27
50	Lis1 controls dynamics of neuronal filopodia and spines to impact synaptogenesis and social behaviour. EMBO Molecular Medicine, 2013, 5, 591-607.	3.3	42
51	The Pattern of Cortical Dysfunction in a Mouse Model of a Schizophrenia-Related Microdeletion. Journal of Neuroscience, 2013, 33, 14825-14839.	1.7	97
52	Peripheral elevation of TNF-Î± leads to early synaptic abnormalities in the mouse somatosensory cortex in experimental autoimmune encephalomyelitis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10306-10311.	3.3	81
53	Opposite effects of fear conditioning and extinction on dendritic spine remodelling. Nature, 2012, 483, 87-91.	13.7	339
54	Imaging Neural Activity Using Thy1-GCaMP Transgenic Mice. Neuron, 2012, 76, 297-308.	3.8	207

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55	Sleep contributes to dendritic spine formation and elimination in the developing mouse somatosensory cortex. Developmental Neurobiology, 2012, 72, 1391-1398.	1.5	97
56	Glucocorticoids are critical regulators of dendritic spine development and plasticity in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16074-16079.	3.3	291
57	Microglia dynamics and function in the CNS. Current Opinion in Neurobiology, 2010, 20, 595-600.	2.0	89
58	Thinned-skull cranial window technique for long-term imaging of the cortex in live mice. Nature Protocols, 2010, 5, 201-208.	5.5	386
59	Dendritic spine instability and insensitivity to modulation by sensory experience in a mouse model of fragile X syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17768-17773.	3.3	177
60	Ankyrin Repeatâ€rich Membrane Spanning/Kidins220 protein regulates dendritic branching and spine stability <i>in vivo</i>. Developmental Neurobiology, 2009, 69, 547-557.	1.5	49
61	Stably maintained dendritic spines are associated with lifelong memories. Nature, 2009, 462, 920-924.	13.7	995
62	Ballistic Delivery of Dyes for Structural and Functional Studies of the Nervous System: Figure 1.. Cold Spring Harbor Protocols, 2009, 2009, pdb.prot5202.	0.2	13
63	Dendritic Spine Dynamics. Annual Review of Physiology, 2009, 71, 261-282.	5.6	340
64	Twoâ€photon imaging of dendritic spine development in the mouse cortex. Developmental Neurobiology, 2008, 68, 771-778.	1.5	70
65	Choice of cranial window type for in vivo imaging affects dendritic spine turnover in the cortex. Nature Neuroscience, 2007, 10, 549-551.	7.1	395
66	Various Dendritic Abnormalities Are Associated with Fibrillar Amyloid Deposits in Alzheimer's Disease. Annals of the New York Academy of Sciences, 2007, 1097, 30-39.	1.8	124
67	The P2Y12 receptor regulates microglial activation by extracellular nucleotides. Nature Neuroscience, 2006, 9, 1512-1519.	7.1	1,258
68	S1g1-4 Experience-dependent modification of dendritic spine dynamics(S1-g1: "Molecular Mechanisms of) Tj ETQq0 0 0 rgBT /Overlock Seibutsu Butsuri, 2006, 46, S112.	0.0	0
69	Two-photon imaging of synaptic plasticity and pathology in the living mouse brain. NeuroRx, 2006, 3, 489-496.	6.0	32
70	ATP mediates rapid microglial response to local brain injury in vivo. Nature Neuroscience, 2005, 8, 752-758.	7.1	3,272
71	Long-term sensory deprivation prevents dendritic spine loss in primary somatosensory cortex. Nature, 2005, 436, 261-265.	13.7	390
72	Defective Neuromuscular Synapses in Mice Lacking Amyloid Precursor Protein (APP) and APP-Like Protein 2. Journal of Neuroscience, 2005, 25, 1219-1225.	1.7	255

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73	A Model of Mini-Embolic Stroke Offers Measurements of the Neurovascular Unit Response in the Living Mouse. Stroke, 2005, 36, 2701-2704.	1.0	40
74	Reduced synaptic vesicle density and active zone size in mice lacking amyloid precursor protein (APP) and APP-like protein 2. Neuroscience Letters, 2005, 384, 66-71.	1.0	86
75	Development of Long-Term Dendritic Spine Stability in Diverse Regions of Cerebral Cortex. Neuron, 2005, 46, 181-189.	3.8	606
76	Fibrillar amyloid deposition leads to local synaptic abnormalities and breakage of neuronal branches. Nature Neuroscience, 2004, 7, 1181-1183.	7.1	497
77	Age-associated synapse elimination in mouse parasympathetic ganglia. Journal of Neurobiology, 2004, 60, 214-226.	3.7	18
78	Axon Branch Removal at Developing Synapses by Axosome Shedding. Neuron, 2004, 44, 651-661.	3.8	258
79	Targeting Prion Amyloid Deposits In Vivo. Journal of Neuropathology and Experimental Neurology, 2004, 63, 775-784.	0.9	32
80	Synaptic dynamism measured over minutes to months: age-dependent decline in an autonomic ganglion. Nature Neuroscience, 2003, 6, 956-960.	7.1	73
81	Rapid labeling of neuronal populations by ballistic delivery of fluorescent dyes. Methods, 2003, 30, 79-85.	1.9	46
82	Glutamate-Dependent Stabilization of Presynaptic Terminals. Neuron, 2003, 38, 677-678.	3.8	5
83	Imaging calcium dynamics in the nervous system by means of ballistic delivery of indicators. Journal of Neuroscience Methods, 2002, 119, 37-43.	1.3	53
84	Long-term dendritic spine stability in the adult cortex. Nature, 2002, 420, 812-816.	13.7	1,084
85	Asynchronous Synapse Elimination in Neonatal Motor Units. Neuron, 2001, 31, 381-394.	3.8	140
86	Multicolor â€œDiOlisticâ€•Labeling of the Nervous System Using Lipophilic Dye Combinations. Neuron, 2000, 27, 219-225.	3.8	303
87	Vital imaging and ultrastructural analysis of individual axon terminals labeled by iontophoretic application of lipophilic dye. Journal of Neuroscience Methods, 1999, 93, 13-20.	1.3	41
88	Competition among the Axonal Projections of an Identified Neuron Contributes to the Retraction of Some of Those Projections. Journal of Neuroscience, 1997, 17, 4293-4301.	1.7	18