Thomas Misgeld

List of Publications by Year
in descending order

71 papers	6,604 citations	101543 36 h-index	85541 71 g-index
77 all docs	77 docs citations	77 times ranked	9769 citing authors

#	Article	IF	Citations
1	A reversible form of axon damage in experimental autoimmune encephalomyelitis and multiple sclerosis. Nature Medicine, 2011, 17, 495-499.	30.7	631
2	In vivo imaging of axonal degeneration and regeneration in the injured spinal cord. Nature Medicine, 2005, 11, 572-577.	30.7	487
3	Mitostasis in Neurons: Maintaining Mitochondria in an Extended Cellular Architecture. Neuron, 2017, 96, 651-666.	8.1	379
4	Imaging axonal transport of mitochondria in vivo. Nature Methods, 2007, 4, 559-561.	19.0	377
5	Trans-presentation of IL-6 by dendritic cells is required for the priming of pathogenic TH17 cells. Nature Immunology, 2017, 18, 74-85.	14.5	311
6	Roles of Neurotransmitter in Synapse Formation. Neuron, 2002, 36, 635-648.	8.1	274
7	Axon Branch Removal at Developing Synapses by Axosome Shedding. Neuron, 2004, 44, 651-661.	8.1	258
8	Rapid adaptive optical recovery of optimal resolution over large volumes. Nature Methods, 2014, 11, 625-628.	19.0	253
9	<scp>TREM</scp>2 deficiency impairs chemotaxis and microglial responses to neuronal injury. EMBO Reports, 2017, 18, 1186-1198.	4.5	240
10	Novel Hexb-based tools for studying microglia in the CNS. Nature Immunology, 2020, 21, 802-815.	14.5	186
11	Agrin promotes synaptic differentiation by counteracting an inhibitory effect of neurotransmitter. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11088-11093.	7.1	185
12	Cell-type-specific profiling of brain mitochondria reveals functional and molecular diversity. Nature Neuroscience, 2019, 22, 1731-1742.	14.8	181
13	In vivo imaging of the diseased nervous system. Nature Reviews Neuroscience, 2006, 7, 449-463.	10.2	174
14	STIM1 Controls Neuronal Ca2+ Signaling, mGluR1-Dependent Synaptic Transmission, and Cerebellar Motor Behavior. Neuron, 2014, 82, 635-644.	8.1	162
15	Pervasive Axonal Transport Deficits in Multiple Sclerosis Models. Neuron, 2014, 84, 1183-1190.	8.1	151
16	Nerve-independent formation of a topologically complex postsynaptic apparatus. Journal of Cell Biology, 2004, 164, 1077-1087.	5.2	144
17	Multiparametric optical analysis of mitochondrial redox signals during neuronal physiology and pathology in vivo. Nature Medicine, 2014, 20, 555-560.	30.7	143
18	Near-infrared branding efficiently correlates light and electron microscopy. Nature Methods, 2011, 8, 568-570.	19.0	139

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19	An assay to image neuronal microtubule dynamics in mice. Nature Communications, 2014, 5, 4827.	12.8	132
20	Remodeling of Axonal Connections Contributes to Recovery in an Animal Model of Multiple Sclerosis. Journal of Experimental Medicine, 2004, 200, 1027-1038.	8.5	128
21	Axonal transport deficits and degeneration can evolve independently in mouse models of amyotrophic lateral sclerosis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4296-4301.	7.1	100
22	A recoverable state of axon injury persists for hours after spinal cord contusion in vivo. Nature Communications, 2014, 5, 5683.	12.8	95
23	Lysosomal Activity Associated with Developmental Axon Pruning. Journal of Neuroscience, 2008, 28, 8993-9001.	3.6	93
24	<i>In Vivo</i>Imaging of Disease-Related Mitochondrial Dynamics in a Vertebrate Model System. Journal of Neuroscience, 2012, 32, 16203-16212.	3.6	90
25	Branch-Specific Microtubule Destabilization Mediates Axon Branch Loss during Neuromuscular Synapse Elimination. Neuron, 2016, 92, 845-856.	8.1	89
26	Neuronal Growth Cone Size-Dependent and -Independent Parameters of Microtubule Polymerization. Frontiers in Cellular Neuroscience, 2018, 12, 195.	3.7	77
27	Age-dependent axonal transport and locomotor changes and tau hypophosphorylation in a â€œP301Lâ€•tau knockin mouse. Neurobiology of Aging, 2012, 33, 621.e1-621.e15.	3.1	75
28	A unified cell biological perspective on axonâ€“myelin injury. Journal of Cell Biology, 2014, 206, 335-345.	5.2	73
29	CNS Axons Globally Increase Axonal Transport after Peripheral Conditioning. Journal of Neuroscience, 2014, 34, 5965-5970.	3.6	70
30	Calcium Influx through Plasma-Membrane Nanoruptures Drives Axon Degeneration in a Model of Multiple Sclerosis. Neuron, 2019, 101, 615-624.e5.	8.1	63
31	Mouse redox histology using genetically encoded probes. Science Signaling, 2016, 9, rs1.	3.6	62
32	Î±Î² T-cell receptors from multiple sclerosis brain lesions show MAIT cellâ€“related features. Neurology: Neuroimmunology and NeuroInflammation, 2015, 2, e107.	6.0	52
33	Cellular, subcellular and functional in vivo labeling of the spinal cord using vital dyes. Nature Protocols, 2013, 8, 481-490.	12.0	49
34	Phagocyte-mediated synapse removal in cortical neuroinflammation is promoted by local calcium accumulation. Nature Neuroscience, 2021, 24, 355-367.	14.8	49
35	Spatial constraints dictate glial territories at murine neuromuscular junctions. Journal of Cell Biology, 2011, 195, 293-305.	5.2	47
36	In vivo imaging reveals rapid astrocyte depletion and axon damage in a model of neuromyelitis opticaâ€•related pathology. Annals of Neurology, 2016, 79, 794-805.	5.3	45

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37	Two adhesive systems cooperatively regulate axon ensheathment and myelin growth in the CNS. Nature Communications, 2019, 10, 4794.	12.8	45
38	Congenic expression of poly-GA but not poly-PR in mice triggers selective neuron loss and interferon responses found in C9orf72 ALS. Acta Neuropathologica, 2020, 140, 121-142.	7.7	44
39	Myelin replacement triggered by single-cell demyelination in mouse cortex. Nature Communications, 2020, 11, 4901.	12.8	34
40	Skin and gut imprinted helper T cell subsets exhibit distinct functional phenotypes in central nervous system autoimmunity. Nature Immunology, 2021, 22, 880-892.	14.5	34
41	Iron-Sequestering Nanocompartments as Multiplexed Electron Microscopy Gene Reporters. ACS Nano, 2019, 13, 8114-8123.	14.6	33
42	<scp>CRMP</scp> 2 mediates Sema3Fâ€dependent axon pruning and dendritic spine remodeling. EMBO Reports, 2020, 21, e48512.	4.5	33
43	Nanoresolution real-time 3D orbital tracking for studying mitochondrial trafficking in vertebrate axons in vivo. ELife, 2019, 8, .	6.0	32
44	Ex vivo imaging of motor axon dynamics in murine triangularis sterni explants. Nature Protocols, 2008, 3, 1645-1653.	12.0	30
45	<i>In Vivo</i>Imaging of CNS Injury and Disease. Journal of Neuroscience, 2017, 37, 10808-10816.	3.6	24
46	Considerations for a European animal welfare standard to evaluate adverse phenotypes in teleost fish. EMBO Journal, 2016, 35, 1151-1154.	7.8	19
47	Voltage-dependent Inwardly Rectifying Potassium Conductance in the Outer Membrane of Neuronal Mitochondria. Journal of Biological Chemistry, 2010, 285, 27411-27417.	3.4	16
48	Uncoupling of neurogenesis and differentiation during retinal development. EMBO Journal, 2017, 36, 1134-1146.	7.8	16
49	Single organelle analysis to characterize mitochondrial function and crosstalk during viral infection. Scientific Reports, 2019, 9, 8492.	3.3	16
50	Death of an axon: studying axon loss in development and disease. Histochemistry and Cell Biology, 2005, 124, 189-196.	1.7	14
51	Nonâ€cellâ€autonomous function of DR6 in Schwann cell proliferation. EMBO Journal, 2018, 37, .	7.8	14
52	Imaging of neuronal mitochondria in situ. Current Opinion in Neurobiology, 2016, 39, 152-163.	4.2	13
53	Multiscale ATUM-FIB Microscopy Enables Targeted Ultrastructural Analysis at Isotropic Resolution. IScience, 2020, 23, 101290.	4.1	13
54	The Microtubule Severing Protein Katanin Regulates Proliferation of Neuronal Progenitors in Embryonic and Adult Neurogenesis. Scientific Reports, 2019, 9, 15940.	3.3	10

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55	A new form of axonal pathology in a spinal model of neuromyelitis optica. Brain, 2022, 145, 1726-1742.	7.6	10
56	In Vivo Imaging of Mitochondria in Intact Zebrafish Larvae. Methods in Enzymology, 2014, 547, 151-164.	1.0	9
57	Super-resolution microscopy writ large. Nature Biotechnology, 2016, 34, 928-930.	17.5	9
58	Notch-mediated re-specification of neuronal identity during central nervous system development. Current Biology, 2021, 31, 4870-4878.e5.	3.9	9
59	Sequential Photo-bleaching to Delineate Single Schwann Cells at the Neuromuscular Junction. Journal of Visualized Experiments, 2013, , e4460.	0.3	7
60	Completion of neuronal remodeling prompts myelination along developing motor axon branches. Journal of Cell Biology, 2021, 220, .	5.2	7
61	Transthyretin Promotes Axon Growth via Regulation of Microtubule Dynamics and Tubulin Acetylation. Frontiers in Cell and Developmental Biology, 2021, 9, 747699.	3.7	6
62	The Use of a Laser for Correlating Light and Electron Microscopic Images in Thick Tissue Specimens. Methods in Cell Biology, 2014, 124, 323-337.	1.1	5
63	Niwaki Instead of Random Forests: Targeted Serial Sectioning Scanning Electron Microscopy With Reimaging Capabilities for Exploring Central Nervous System Cell Biology and Pathology. Frontiers in Neuroanatomy, 2021, 15, 732506.	1.7	5
64	Neural labeling and manipulation by neonatal intraventricular viral injection in mice. STAR Protocols, 2022, 3, 101081.	1.2	5
65	Hemorrhagic lesion with detection of infected endothelial cells in human bornavirus encephalitis. Acta Neuropathologica, 2022, 144, 377-379.	7.7	5
66	Imaging Acute Neuromuscular Explants from <i>Thy1</i> Mouse Lines. Cold Spring Harbor Protocols, 2015, 2015, pdb.prot087692.	0.3	4
67	Trajectory data of antero- and retrograde movement of mitochondria in living zebrafish larvae. Data in Brief, 2020, 29, 105280.	1.0	4
68	Imaging the execution phase of neuroinflammatory disease models. Experimental Neurology, 2019, 320, 112968.	4.1	3
69	P2R Inhibitors Prevent Antibody-Mediated Complement Activation in an Animal Model of Neuromyelitis Optica. Neurotherapeutics, 2022, 19, 1603-1616.	4.4	3
70	A less painful transfer of power. Neuron, 2022, 110, 559-561.	8.1	1
71	Multiscale ATUM-FIB Microscopy Enables Targeted Ultrastructural Analysis at Isotropic Resolution. Microscopy and Microanalysis, 2020, 26, 598-600.	0.4	0