Michael Mller

List of Publications by Year in Descending Order

56 papers	1,959 citations	26 h-index	43 g-index
57 ext. papers	2,191 ext. citations	5.4 avg, IF	4.71 L-index

#	Paper	IF	Citations
56	The Critical Role of Spreading Depolarizations in Early Brain Injury: Consensus and Contention.. *Neurocritical Care*, **2022**, 1	3.3	2
55	Questioning Glutamate Excitotoxicity in Acute Brain Damage: The Importance of Spreading Depolarization.. *Neurocritical Care*, **2022**, 1	3.3	2
54	Metabolomic Fingerprint of Mecp2-Deficient Mouse Cortex: Evidence for a Pronounced Multi-Facetted Metabolic Component in Rett Syndrome. *Cells*, **2021**, 10,	7.9	2
53	Intensified mitochondrial hydrogen peroxide release occurs in all brain regions, affects male as well as female Rett mice, and constitutes a life-long burden. *Archives of Biochemistry and Biophysics*, **2020**, 696, 108666	4.1	2
52	Overshooting Subcellular Redox-Responses in Rett-Mouse Hippocampus during Neurotransmitter Stimulation. *Cells*, **2020**, 9,	7.9	3
51	Neuronal Redox-Imbalance in Rett Syndrome Affects Mitochondria as Well as Cytosol, and Is Accompanied by Intensified Mitochondrial O Consumption and ROS Release. *Frontiers in Physiology*, **2019**, 10, 479	4.6	17
50	Towards a consensus on developmental regression. *Neuroscience and Biobehavioral Reviews*, **2019**, 107, 3-5	9	7
49	Disturbed redox homeostasis and oxidative stress: Potential players in the developmental regression in Rett syndrome. *Neuroscience and Biobehavioral Reviews*, **2019**, 98, 154-163	9	17
48	Synaptic Alterations in Mouse Models for Alzheimer Disease-A Special Focus on N-Truncated Abeta 4-42. *Molecules*, **2018**, 23,	4.8	13
47	Live Imaging of Mitochondrial ROS Production and Dynamic Redox Balance in Neurons. *Neuromethods*, **2017**, 179-197	0.4	2
46	Activating de novo mutations in NFE2L2 encoding NRF2 cause a multisystem disorder. *Nature Communications*, **2017**, 8, 818	17.4	44
45	Increased Mitochondrial Mass and Cytosolic Redox Imbalance in Hippocampal Astrocytes of a Mouse Model of Rett Syndrome: Subcellular Changes Revealed by Ratiometric Imaging of JC-1 and roGFP1 Fluorescence. *Oxidative Medicine and Cellular Longevity*, **2017**, 2017, 3064016	6.7	20
44	Systemic Radical Scavenger Treatment of a Mouse Model of Rett Syndrome: Merits and Limitations of the Vitamin E Derivative Trolox. *Frontiers in Cellular Neuroscience*, **2016**, 10, 266	6.1	20
43	Selective expression of a constitutively active erythropoietin receptor in GABAergic neurons alters hippocampal network properties without affecting cognition. *Journal of Neurochemistry*, **2016**, 136, 698-705	6	1
42	Redox Indicator Mice Stably Expressing Genetically Encoded Neuronal roGFP: Versatile Tools to Decipher Subcellular Redox Dynamics in Neuropathophysiology. *Antioxidants and Redox Signaling*, **2016**, 25, 41-58	8.4	27
41	Tyrphostin AG126 exerts neuroprotection in CNS inflammation by a dual mechanism. *Glia*, **2015**, 63, 1083-99	7	15
40	Response properties of the genetically encoded optical H2O2 sensor HyPer. *Free Radical Biology and Medicine*, **2014**, 76, 227-41	7.8	32

39	Aberrant redox homoeostasis and mitochondrial dysfunction in Rett syndrome. *Biochemical Society Transactions*, **2014**, 42, 959-64	5.1	25
38	The free radical scavenger Trolox dampens neuronal hyperexcitability, reinstates synaptic plasticity, and improves hypoxia tolerance in a mouse model of Rett syndrome. *Frontiers in Cellular Neuroscience*, **2014**, 8, 56	6.1	35
37	Oxidative burden and mitochondrial dysfunction in a mouse model of Rett syndrome. *Neurobiology of Disease*, **2012**, 48, 102-14	7.5	84
36	Temporo-spectral imaging of intrinsic optical signals during hypoxia-induced spreading depression-like depolarization. *PLoS ONE*, **2012**, 7, e43981	3.7	16
35	Restraint Stress Intensifies Interstitial K(+) Accumulation during Severe Hypoxia. *Frontiers in Pharmacology*, **2012**, 3, 53	5.6	4
34	5-HT7R/G12 signaling regulates neuronal morphology and function in an age-dependent manner. *Journal of Neuroscience*, **2012**, 32, 2915-30	6.6	87
33	Dynamic, semi-quantitative imaging of intracellular ROS levels and redox status in rat hippocampal neurons. *NeuroImage*, **2011**, 54, 2590-602	7.9	26
32	Ratiometric high-resolution imaging of JC-1 fluorescence reveals the subcellular heterogeneity of astrocytic mitochondria. *Pflugers Archiv European Journal of Physiology*, **2011**, 462, 693-708	4.6	76
31	Expression of constitutively active erythropoietin receptor in pyramidal neurons of cortex and hippocampus boosts higher cognitive functions in mice. *BMC Biology*, **2011**, 9, 27	7.3	46
30	A CAG repeat polymorphism of KCNN3 predicts SK3 channel function and cognitive performance in schizophrenia. *EMBO Molecular Medicine*, **2011**, 3, 309-19	12	44
29	Altered responses of MeCP2-deficient mouse brain stem to severe hypoxia. *Journal of Neurophysiology*, **2011**, 105, 3067-79	3.2	13
28	Impaired hippocampal Ca2+ homeostasis and concomitant K+ channel dysfunction in a mouse model of Rett syndrome during anoxia. *Neuroscience*, **2010**, 171, 300-15	3.9	10
27	Infant brain stem is prone to the generation of spreading depression during severe hypoxia. *Journal of Neurophysiology*, **2009**, 101, 2395-410	3.2	25
26	H(2)O(2)-mediated modulation of cytosolic signaling and organelle function in rat hippocampus. *Pflugers Archiv European Journal of Physiology*, **2009**, 458, 937-52	4.6	44
25	Enhanced hypoxia susceptibility in hippocampal slices from a mouse model of rett syndrome. *Journal of Neurophysiology*, **2009**, 101, 1016-32	3.2	33
24	Sulfhydryl oxidation: a potential strategy to achieve neuroprotection during severe hypoxia?. *Neuroscience*, **2008**, 152, 903-12	3.9	7
23	Erythropoietin enhances hippocampal long-term potentiation and memory. *BMC Biology*, **2008**, 6, 37	7.3	102
22	Reconfiguration of respiratory-related population activity in a rostrally tilted transversal slice preparation following blockade of inhibitory neurotransmission in neonatal rats. *Pflugers Archiv European Journal of Physiology*, **2008**, 457, 185-95	4.6	9

21	Imaging of respiratory-related population activity with single-cell resolution. *American Journal of Physiology - Cell Physiology*, **2007**, 292, C508-16	5.4	24
20	Optical and pharmacological tools to investigate the role of mitochondria during oxidative stress and neurodegeneration. *Progress in Neurobiology*, **2006**, 79, 136-71	10.9	149
19	Lack of the Kir4.1 channel subunit abolishes K+ buffering properties of astrocytes in the ventral respiratory group: impact on extracellular K+ regulation. *Journal of Neurophysiology*, **2006**, 95, 1843-52	3.2	146
18	Mitochondrial inhibition prior to oxygen-withdrawal facilitates the occurrence of hypoxia-induced spreading depression in rat hippocampal slices. *Journal of Neurophysiology*, **2006**, 96, 492-504	3.2	43
17	Mitochondrial organization and motility probed by two-photon microscopy in cultured mouse brainstem neurons. *Experimental Cell Research*, **2005**, 303, 114-27	4.2	56
16	Sulfhydryl oxidation reduces hippocampal susceptibility to hypoxia-induced spreading depression by activating BK channels. *Journal of Neurophysiology*, **2005**, 94, 1091-103	3.2	33
15	Construction and performance of a custom-built two-photon laser scanning system. *Journal Physics D: Applied Physics*, **2003**, 36, 1747-1757	3	25
14	Dynamic recording of cell death in the in vitro dorsal vagal nucleus of rats in response to metabolic arrest. *Journal of Neurophysiology*, **2003**, 89, 551-61	3.2	19
13	ATP-independent anoxic activation of ATP-sensitive K+ channels in dorsal vagal neurons of juvenile mice in situ. *Neuroscience*, **2002**, 109, 313-28	3.9	31
12	Effects of ATP and derivatives on neuropile glial cells of the leech central nervous system. *Glia*, **2000**, 29, 191-201	9	14
11	Molecular determinants of Ca2+-dependent K+ channel function in rat dorsal vagal neurones. *Journal of Physiology*, **2000**, 527 Pt 2, 283-90	3.9	77
10	Potassium-induced enhancement of persistent inward current in hippocampal neurons in isolation and in tissue slices. *Brain Research*, **2000**, 885, 102-10	3.7	46
9	Na(+) dependence and the role of glutamate receptors and Na(+) channels in ion fluxes during hypoxia of rat hippocampal slices. *Journal of Neurophysiology*, **2000**, 84, 1869-80	3.2	67
8	Na(+) and K(+) concentrations, extra- and intracellular voltages, and the effect of TTX in hypoxic rat hippocampal slices. *Journal of Neurophysiology*, **2000**, 83, 735-45	3.2	125
7	Effects of chloride transport inhibition and chloride substitution on neuron function and on hypoxic spreading-depression-like depolarization in rat hippocampal slices. *Neuroscience*, **2000**, 97, 33-45	3.9	30
6	Intrinsic optical signals in rat hippocampal slices during hypoxia-induced spreading depression-like depolarization. *Journal of Neurophysiology*, **1999**, 82, 1818-31	3.2	66
5	Ionic mechanism of 4-aminopyridine action on leech neuropile glial cells. *Brain Research*, **1999**, 826, 63-73	3.7	12
4	Macroscopic and single-channel chloride currents in neuropile glial cells of the leech central nervous system. *Brain Research*, **1998**, 781, 307-19	3.7	8

3	Inhibition of major cationic inward currents prevents spreading depression-like hypoxic depolarization in rat hippocampal tissue slices. *Brain Research*, **1998**, 812, 1-13	3.7	61
2	Single potassium channels in neuropile glial cells of the leech central nervous system. *Brain Research*, **1997**, 769, 245-55	3.7	10
1	Single ion channel currents in neuropile glial cells of the leech central nervous system. *Glia*, **1993**, 9, 260-8	3	5