

Matthias Klugmann

List of Publications by Year in descending order

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90
papers

8,598
citations

71102

41
h-index

56724

83
g-index

92
all docs

92
docs citations

92
times ranked

11153
citing authors

#	ARTICLE	IF	CITATIONS
1	Axonal Swellings and Degeneration in Mice Lacking the Major Proteolipid of Myelin. <i>Science</i> , 1998, 280, 1610-1613.	12.6	804
2	Glucagon-like peptide-1 receptor is involved in learning and neuroprotection. <i>Nature Medicine</i> , 2003, 9, 1173-1179.	30.7	722
3	Neurotransmitter-Triggered Transfer of Exosomes Mediates Oligodendrocyte-Neuron Communication. <i>PLoS Biology</i> , 2013, 11, e1001604.	5.6	663
4	The Endocannabinoid System Controls Key Epileptogenic Circuits in the Hippocampus. <i>Neuron</i> , 2006, 51, 455-466.	8.1	632
5	Mitochondrial CB1 receptors regulate neuronal energy metabolism. <i>Nature Neuroscience</i> , 2012, 15, 558-564.	14.8	450
6	Assembly of CNS Myelin in the Absence of Proteolipid Protein. <i>Neuron</i> , 1997, 18, 59-70.	8.1	404
7	Shaping of the autoreactive T-cell repertoire by a splice variant of self protein expressed in thymic epithelial cells. <i>Nature Medicine</i> , 2000, 6, 56-61.	30.7	355
8	Patients lacking the major CNS myelin protein, proteolipid protein 1, develop length-dependent axonal degeneration in the absence of demyelination and inflammation. <i>Brain</i> , 2002, 125, 551-561.	7.6	272
9	Homer Proteins Regulate Sensitivity to Cocaine. <i>Neuron</i> , 2004, 43, 401-413.	8.1	226
10	Synaptic Inhibition in the Olfactory Bulb Accelerates Odor Discrimination in Mice. <i>Neuron</i> , 2010, 65, 399-411.	8.1	223
11	Extinction Training after Cocaine Self-Administration Induces Glutamatergic Plasticity to Inhibit Cocaine Seeking. <i>Journal of Neuroscience</i> , 2010, 30, 7984-7992.	3.6	187
12	AAV-mediated hippocampal expression of short and long Homer 1 proteins differentially affect cognition and seizure activity in adult rats. <i>Molecular and Cellular Neurosciences</i> , 2005, 28, 347-360.	2.2	179
13	Binge Drinking Upregulates Accumbens mGluR5-Homer2-PI3K Signaling: Functional Implications for Alcoholism. <i>Journal of Neuroscience</i> , 2009, 29, 8655-8668.	3.6	141
14	AAV Vector-mediated RNAi of Mutant Huntingtin Expression Is Neuroprotective in a Novel Genetic Rat Model of Huntington's Disease. <i>Molecular Therapy</i> , 2008, 16, 947-956.	8.2	135
15	Tau exacerbates excitotoxic brain damage in an animal model of stroke. <i>Nature Communications</i> , 2017, 8, 473.	12.8	134
16	Close-Field Electroporation Gene Delivery Using the Cochlear Implant Electrode Array Enhances the Bionic Ear. <i>Science Translational Medicine</i> , 2014, 6, 233ra54.	12.4	130
17	Synaptic scaffolding protein Homer1a protects against chronic inflammatory pain. <i>Nature Medicine</i> , 2006, 12, 677-681.	30.7	123
18	Late-onset neurodegeneration in mice with increased dosage of the proteolipid protein gene. , 1998, 394, 506-519.		118

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19	Neuronal Basic Helix-Loop-Helix Proteins (NEX, neuroD, NDRF): Spatiotemporal Expression and Targeted Disruption of the NEX Gene in Transgenic Mice. <i>Journal of Neuroscience</i> , 1998, 18, 1408-1418.	3.6	114
20	Current concepts of PLP and its role in the nervous system. <i>Microscopy Research and Technique</i> , 1998, 41, 344-358.	2.2	110
21	Distinct Roles for Different Homer1 Isoforms in Behaviors and Associated Prefrontal Cortex Function. <i>Journal of Neuroscience</i> , 2005, 25, 11586-11594.	3.6	108
22	Glial Promoter Selectivity following AAV-Delivery to the Immature Brain. <i>PLoS ONE</i> , 2013, 8, e65646.	2.5	108
23	Nucleus Accumbens mGluR5-Associated Signaling Regulates Binge Alcohol Drinking Under Drinking-Induced Dark Procedures. <i>Alcoholism: Clinical and Experimental Research</i> , 2012, 36, 1623-1633.	2.4	102
24	Accumbens Homer2 Overexpression Facilitates Alcohol-Induced Neuroplasticity in C57BL/6J Mice. <i>Neuropsychopharmacology</i> , 2008, 33, 1365-1378.	5.4	101
25	Nerve Terminal Nicotinic Acetylcholine Receptors Initiate Quantal GABA Release from Perisomatic Interneurons by Activating Axonal T-Type (Ca_v3) Ca^{2+} Channels and Ca^{2+} Release from Stores. <i>Journal of Neuroscience</i> , 2011, 31, 13546-13561.	3.6	84
26	Homer Isoforms Differentially Regulate Cocaine-Induced Neuroplasticity. <i>Neuropsychopharmacology</i> , 2006, 31, 768-777.	5.4	78
27	AAV Vector-Mediated Overexpression of CB1 Cannabinoid Receptor in Pyramidal Neurons of the Hippocampus Protects against Seizure-Induced Excitotoxicity. <i>PLoS ONE</i> , 2010, 5, e15707.	2.5	75
28	Binge Alcohol Drinking by Mice Requires Intact Group1 Metabotropic Glutamate Receptor Signaling Within the Central Nucleus of the Amygdala. <i>Neuropsychopharmacology</i> , 2014, 39, 435-444.	5.4	67
29	Septal Glucagon-Like Peptide 1 Receptor Expression Determines Suppression of Cocaine-Induced Behavior. <i>Neuropsychopharmacology</i> , 2015, 40, 1969-1978.	5.4	67
30	Myelin proteolipid proteins promote the interaction of oligodendrocytes and axons. <i>Journal of Neuroscience Research</i> , 2001, 63, 151-164.	2.9	64
31	KIBRA (Kidney/BRAin protein) regulates learning and memory and stabilizes Protein kinase M η . <i>Journal of Neurochemistry</i> , 2014, 128, 686-700.	3.9	64
32	CNS-targeted Viral Delivery of G-CSF in an Animal Model for ALS: Improved Efficacy and Preservation of the Neuromuscular Unit. <i>Molecular Therapy</i> , 2011, 19, 284-292.	8.2	61
33	Type II spiral ganglion afferent neurons drive medial olivocochlear reflex suppression of the cochlear amplifier. <i>Nature Communications</i> , 2015, 6, 7115.	12.8	60
34	Rapid, reproducible transduction of select forebrain regions by targeted recombinant virus injection into the neonatal mouse brain. <i>Journal of Neuroscience Methods</i> , 2009, 182, 55-63.	2.5	57
35	Methamphetamine Addiction Vulnerability: The Glutamate, the Bad, and the Ugly. <i>Biological Psychiatry</i> , 2017, 81, 959-970.	1.3	57
36	NAC1 Regulates the Recruitment of the Proteasome Complex into Dendritic Spines. <i>Journal of Neuroscience</i> , 2007, 27, 8903-8913.	3.6	51

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37	Mouse Models of Myelin Diseases. <i>Brain Pathology</i> , 1998, 8, 771-793.	4.1	49
38	Multiple Splice Isoforms of Proteolipid M6B in Neurons and Oligodendrocytes. <i>Molecular and Cellular Neurosciences</i> , 2001, 18, 593-605.	2.2	48
39	Restoration of aspartoacylase activity in CNS neurons does not ameliorate motor deficits and demyelination in a model of Canavan disease. <i>Molecular Therapy</i> , 2005, 11, 745-753.	8.2	48
40	Optogenetic Release of ACh Induces Rhythmic Bursts of Perisomatic IPSCs in Hippocampus. <i>PLoS ONE</i> , 2011, 6, e27691.	2.5	48
41	Genetic background determines phenotypic severity of thePlp rumpshaker mutation. <i>Journal of Neuroscience Research</i> , 2003, 72, 12-24.	2.9	47
42	Identification and distribution of aspartoacylase in the postnatal rat brain. <i>NeuroReport</i> , 2003, 14, 1837-1840.	1.2	46
43	Imbalances in Prefrontal Cortex CC-Homer1 versus CC-Homer2 Expression Promote Cocaine Preference. <i>Journal of Neuroscience</i> , 2013, 33, 8101-8113.	3.6	45
44	Accumbens Homer2-mediated signaling: a factor contributing to mouse strain differences in alcohol drinking?. <i>Genes, Brain and Behavior</i> , 2011, 10, 111-126.	2.2	42
45	A single gene defect causing claustrophobia. <i>Translational Psychiatry</i> , 2013, 3, e254-e254.	4.8	41
46	Aspartoacylase-LacZ Knockin Mice: An Engineered Model of Canavan Disease. <i>PLoS ONE</i> , 2011, 6, e20336.	2.5	41
47	Recombinant Human Myelin-Associated Glycoprotein Promoter Drives Selective AAV-Mediated Transgene Expression in Oligodendrocytes. <i>Frontiers in Molecular Neuroscience</i> , 2016, 9, 13.	2.9	39
48	Uncoupling N-acetylaspartate from brain pathology: implications for Canavan disease gene therapy. <i>Acta Neuropathologica</i> , 2018, 135, 95-113.	7.7	38
49	Loss of the Ca ²⁺ /calmodulin-dependent protein kinase type IV in dopaminergic neurons enhances behavioral effects of cocaine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 17549-17554.	7.1	36
50	AAV-Mediated Overexpression of the CB1 Receptor in the mPFC of Adult Rats Alters Cognitive Flexibility, Social Behavior, and Emotional Reactivity. <i>Frontiers in Behavioral Neuroscience</i> , 2011, 5, 37.	2.0	35
51	Viral-mediated oligodendroglial alpha-synuclein expression models multiple system atrophy. <i>Movement Disorders</i> , 2017, 32, 1230-1239.	3.9	35
52	Alternative Splicing of the TRPC3 Ion Channel Calmodulin/IP ₃ Receptor-Binding Domain in the Hindbrain Enhances Cation Flux. <i>Journal of Neuroscience</i> , 2012, 32, 11414-11423.	3.6	34
53	Cannabinoid exposure in pubertal rats increases spontaneous ethanol consumption and NMDA receptor associated protein levels. <i>International Journal of Neuropsychopharmacology</i> , 2011, 14, 505-517.	2.1	33
54	Impaired 2-AG Signaling in Hippocampal Glutamatergic Neurons: Aggravation of Anxiety-Like Behavior and Unaltered Seizure Susceptibility. <i>International Journal of Neuropsychopharmacology</i> , 2016, 19, pyv091.	2.1	33

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55	Cannabinoid receptor-interacting protein Crip1a modulates CB1 receptor signaling in mouse hippocampus. <i>Brain Structure and Function</i> , 2016, 221, 2061-2074.	2.3	33
56	Gene therapy targeting oligodendrocytes provides therapeutic benefit in a leukodystrophy model. <i>Brain</i> , 2017, 140, aww351.	7.6	33
57	A novel role of circadian transcription factor DBP in hippocampal plasticity. <i>Molecular and Cellular Neurosciences</i> , 2006, 31, 303-314.	2.2	32
58	Targeting Homer genes using adeno-associated viral vector: lessons learned from behavioural and neurochemical studies. <i>Behavioural Pharmacology</i> , 2008, 19, 485-500.	1.7	30
59	Acetate metabolism does not reflect astrocytic activity, contributes directly to <scp>GABA</scp> synthesis, and is increased by silent information regulator 1 activation. <i>Journal of Neurochemistry</i> , 2017, 140, 903-918.	3.9	28
60	Increased Alcohol-Drinking Induced by Manipulations of mGlu5 Phosphorylation within the Bed Nucleus of the Stria Terminalis. <i>Journal of Neuroscience</i> , 2019, 39, 2745-2761.	3.6	25
61	Adeno-associated virus-based Alzheimer's disease mouse models and potential new therapeutic avenues. <i>British Journal of Pharmacology</i> , 2019, 176, 3649-3665.	5.4	22
62	Observations on the structure of myelin lacking the major proteolipid protein. <i>Neuropathology and Applied Neurobiology</i> , 2002, 28, 75-78.	3.2	21
63	Cocaine-elicited imbalances in ventromedial prefrontal cortex Homer1 versus Homer2 expression: implications for relapse. <i>Addiction Biology</i> , 2015, 20, 148-157.	2.6	21
64	In vivo characterization of the aspartyl-tRNA synthetase DARS: Homing in on the leukodystrophy HBSL. <i>Neurobiology of Disease</i> , 2017, 97, 24-35.	4.4	20
65	Neurotrophin gene augmentation by electrotransfer to improve cochlear implant hearing outcomes. <i>Hearing Research</i> , 2019, 380, 137-149.	2.0	20
66	GluA1 and its PDZ-interaction: A role in experience-dependent behavioral plasticity in the forced swim test. <i>Neurobiology of Disease</i> , 2013, 52, 160-167.	4.4	19
67	Silent information regulator 1 modulator resveratrol increases brain lactate production and inhibits mitochondrial metabolism, whereas SRT1720 increases oxidative metabolism. <i>Journal of Neuroscience Research</i> , 2015, 93, 1147-1156.	2.9	19
68	Expression Pattern of the Aspartyl-tRNA Synthetase DARS in the Human Brain. <i>Frontiers in Molecular Neuroscience</i> , 2018, 11, 81.	2.9	19
69	Distinct phenotypes associated with increasing dosage of the PLP gene: implications for CMT1A due to PMP22 gene duplication. <i>Annals of the New York Academy of Sciences</i> , 1999, 883, 234-46.	3.8	16
70	Behavioral and Neurochemical Phenotyping of Mice Incapable of Homer1a Induction. <i>Frontiers in Behavioral Neuroscience</i> , 2017, 11, 208.	2.0	15
71	Targeted overexpression of CRH receptor subtype 1 in central amygdala neurons: effect on alcohol-seeking behavior. <i>Psychopharmacology</i> , 2018, 235, 1821-1833.	3.1	15
72	Gene therapy mediated seizure suppression in Genetic Generalised Epilepsy: Neuropeptide Y overexpression in a rat model. <i>Neurobiology of Disease</i> , 2018, 113, 23-32.	4.4	14

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73	An Immunological Approach to Increase the Brain's Resilience to Insults. <i>ISRN Neuroscience</i> , 2014, 2014, 1-10.	1.5	13
74	L-Aspartate, L-Ornithine and L-Ornithine-L-Aspartate (LOLA) and Their Impact on Brain Energy Metabolism. <i>Neurochemical Research</i> , 2020, 45, 1438-1450.	3.3	13
75	AAV9-mediated gene delivery of MCT1 to oligodendrocytes does not provide a therapeutic benefit in a mouse model of ALS. <i>Molecular Therapy - Methods and Clinical Development</i> , 2021, 20, 508-519.	4.1	12
76	Semaphorin 6A Improves Functional Recovery in Conjunction with Motor Training after Cerebral Ischemia. <i>PLoS ONE</i> , 2010, 5, e10737.	2.5	11
77	Homer2 within the nucleus accumbens core bidirectionally regulates alcohol intake by both P and Wistar rats. <i>Alcohol</i> , 2015, 49, 533-542.	1.7	11
78	Mapping of bionic array electric field focusing in plasmid DNA-based gene electrotransfer. <i>Gene Therapy</i> , 2016, 23, 369-379.	4.5	11
79	Dual-Plasmid Bionic Array-Directed Gene Electrotransfer in HEK293 Cells and Cochlear Mesenchymal Cells Probes Transgene Expression and Cell Fate. <i>Human Gene Therapy</i> , 2019, 30, 211-224.	2.7	11
80	Reduced Levels of a Specific Myelin-Associated Oligodendrocytic Basic Protein Isoform in <i>shiverer</i> Myelin. <i>Developmental Neuroscience</i> , 1999, 21, 36-42.	2.0	10
81	Homers at the Interface between Reward and Pain. <i>Frontiers in Psychiatry</i> , 2013, 4, 39.	2.6	10
82	The Leukodystrophies HBSL and LBSL's Correlates and Distinctions. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 626610.	3.7	9
83	Loss of Central Auditory Processing in a Mouse Model of Canavan Disease. <i>PLoS ONE</i> , 2014, 9, e97374.	2.5	6
84	A Hypomorphic Dars1D367Y Model Recapitulates Key Aspects of the Leukodystrophy HBSL. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 625879.	3.7	6
85	Cochlear Implant Close-Field Electroporation. , 2016, , 1-20.		5
86	Developmental delay and late onset HBSL pathology in hypomorphic Dars1M256L mice. <i>Neurochemical Research</i> , 2022, 47, 1972-1984.	3.3	4
87	Activity-dependent subcellular localization of NAC1, dendrites and glia. <i>European Journal of Neuroscience</i> , 2005, 22, 1552-1552.	2.6	0
88	Volatile meets versatile. <i>Critical Care Medicine</i> , 2012, 40, 1992-1993.	0.9	0
89	Cochlear Implant Close-Field Electroporation. , 2017, , 1679-1697.		0
90	Editorial: Myelin Repair: At the Crossing-Lines of Myelin Biology and Gene Therapy. <i>Frontiers in Cellular Neuroscience</i> , 2022, 16, 853742.	3.7	0