Christian Henneberger

List of Publications by Year
in descending order

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68 papers	4,353 citations	136950 32 h-index	114465 63 g-index
77 all docs	77 docs citations	77 times ranked	5530 citing authors

#	Article	IF	Citations
1	Long-term potentiation depends on release of d-serine from astrocytes. Nature, 2010, 463, 232-236.	27.8	1,140
2	Astrocyte uncoupling as a cause of human temporal lobe epilepsy. Brain, 2015, 138, 1208-1222.	7.6	257
3	The Extracellular Matrix Molecule Hyaluronic Acid Regulates Hippocampal Synaptic Plasticity by Modulating Postsynaptic L-Type Ca2+ Channels. Neuron, 2010, 67, 116-128.	8.1	184
4	LTP Induction Boosts Glutamate Spillover by Driving Withdrawal of Perisynaptic Astroglia. Neuron, 2020, 108, 919-936.e11.	8.1	159
5	Astroglial Glutamate Signaling and Uptake in the Hippocampus. Frontiers in Molecular Neuroscience, 2017, 10, 451.	2.9	148
6	Bassoon Specifically Controls Presynaptic P/Q-type Ca2+ Channels via RIM-Binding Protein. Neuron, 2014, 82, 181-194.	8.1	139
7	Making sense of astrocytic calcium signals â€" from acquisition to interpretation. Nature Reviews Neuroscience, 2020, 21, 551-564.	10.2	131
8	RNA editing produces glycine receptor Î±3P185L, resulting in high agonist potency. Nature Neuroscience, 2005, 8, 736-744.	14.8	114
9	Glia selectively approach synapses on thin dendritic spines. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20140047.	4.0	105
10	Postsynaptic Action of BDNF on GABAergic Synaptic Transmission in the Superficial Layers of the Mouse Superior Colliculus. Journal of Neurophysiology, 2002, 88, 595-603.	1.8	83
11	Astroglial versus Neuronal D-Serine: Fact Checking. Trends in Neurosciences, 2017, 40, 517-520.	8.6	83
12	P2Y1 receptor blockade normalizes network dysfunction and cognition in an Alzheimerâ€™s disease model. Journal of Experimental Medicine, 2018, 215, 1649-1663.	8.5	83
13	Dopamine elevates and lowers astroglial Ca²⁺ through distinct pathways depending on local synaptic circuitry. Glia, 2017, 65, 447-459.	4.9	75
14	Diversity of astroglial functions alludes to subcellular specialisation. Trends in Neurosciences, 2014, 37, 228-242.	8.6	74
15	Do alterations in inter-ictal heart rate variability predict sudden unexpected death in epilepsy?. Epilepsy Research, 2009, 87, 277-280.	1.6	71
16	Subcellular reorganization and altered phosphorylation of the astrocytic gap junction protein connexin43 in human and experimental temporal lobe epilepsy. Glia, 2017, 65, 1809-1820.	4.9	67
17	Disentangling astroglial physiology with a realistic cell model in silico. Nature Communications, 2018, 9, 3554.	12.8	65
18	Astrocytes as Regulators of Synaptic Function. Neuroscientist, 2011, 17, 513-523.	3.5	62

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19	Analog Modulation of Mossy Fiber Transmission Is Uncoupled from Changes in Presynaptic Ca²⁺. Journal of Neuroscience, 2008, 28, 7765-7773.	3.6	60
20	Construction of a robust and sensitive arginine biosensor through ancestral protein reconstruction. Protein Science, 2015, 24, 1412-1422.	7.6	60
21	Monitoring hippocampal glycine with the computationally designed optical sensor GlyFS. Nature Chemical Biology, 2018, 14, 861-869.	8.0	60
22	Altered Balance of Glutamatergic/GABAergic Synaptic Input and Associated Changes in Dendrite Morphology after BDNF Expression in BDNF-Deficient Hippocampal Neurons. Journal of Neuroscience, 2006, 26, 7189-7200.	3.6	59
23	Spatial properties of astrocyte gap junction coupling in the rat hippocampus. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130600.	4.0	59
24	Independent Regulation of Basal Neurotransmitter Release Efficacy by Variable Ca2+ Influx and Bouton Size at Small Central Synapses. PLoS Biology, 2012, 10, e1001396.	5.6	58
25	Control of astrocyte morphology by Rho GTPases. Brain Research Bulletin, 2018, 136, 44-53.	3.0	48
26	A 29â€amino acid fragment of Clostridium botulinum C3 protein enhances neuronal outgrowth, connectivity, and reinnervation. FASEB Journal, 2009, 23, 1115-1126.	0.5	47
27	Diversity of astrocyte potassium channels: An update. Brain Research Bulletin, 2018, 136, 26-36.	3.0	44
28	Local Efficacy of Glutamate Uptake Decreases with Synapse Size. Cell Reports, 2020, 32, 108182.	6.4	42
29	Contribution of near-threshold currents to intrinsic oscillatory activity in rat medial entorhinal cortex layer II stellate cells. Journal of Neurophysiology, 2013, 109, 445-463.	1.8	41
30	Heparan Sulfates Support Pyramidal Cell Excitability, Synaptic Plasticity, and Context Discrimination. Cerebral Cortex, 2017, 27, 903-918.	2.9	41
31	Monitoring local synaptic activity with astrocytic patch pipettes. Nature Protocols, 2012, 7, 2171-2179.	12.0	39
32	Episodic ataxia type 1 mutations differentially affect neuronal excitability and transmitter release. DMM Disease Models and Mechanisms, 2009, 2, 612-619.	2.4	38
33	Local Resting Ca2+ Controls the Scale of Astroglial Ca2+ Signals. Cell Reports, 2020, 30, 3466-3477.e4.	6.4	38
34	CCL17 exerts a neuroimmune modulatory function and is expressed in hippocampal neurons. Glia, 2018, 66, 2246-2261.	4.9	33
35	Rapid genotyping of newborn gene mutant mice. Journal of Neuroscience Methods, 2000, 100, 123-126.	2.5	32
36	Light-sheet fluorescence expansion microscopy: fast mapping of neural circuits at super resolution. Neurophotonics, 2019, 6, 1.	3.3	30

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37	GluR- and TrkB-mediated maturation of GABAAreceptor function during the period of eye opening. European Journal of Neuroscience, 2005, 21, 431-440.	2.6	29
38	The structural and functional evidence for vesicular release from astrocytes in situ. Brain Research Bulletin, 2018, 136, 65-75.	3.0	28
39	Synaptic Potentiation at Basal and Apical Dendrites of Hippocampal Pyramidal Neurons Involves Activation of a Distinct Set of Extracellular and Intracellular Molecular Cues. Cerebral Cortex, 2019, 29, 283-304.	2.9	27
40	NMDA Receptor Activation: Two Targets for Two Co-Agonists. Neurochemical Research, 2013, 38, 1156-1162.	3.3	26
41	HACE1 deficiency leads to structural and functional neurodevelopmental defects. Neurology: Genetics, 2019, 5, e330.	1.9	26
42	Heterogeneity and Development of Fine Astrocyte Morphology Captured by Diffraction-Limited Microscopy. Frontiers in Cellular Neuroscience, 2021, 15, 669280.	3.7	25
43	Cajalâ€“Retzius cells in the mouse neocortex receive two types of preâ€•and postsynaptically distinct GABAergic inputs. Journal of Physiology, 2007, 585, 881-895.	2.9	23
44	d-Serine: A key to synaptic plasticity?. International Journal of Biochemistry and Cell Biology, 2012, 44, 587-590.	2.8	23
45	Neuronal adaptation involves rapid expansion of the action potential initiation site. Nature Communications, 2014, 5, 3817.	12.8	22
46	A Peptide Mimetic Targeting Trans-Homophilic NCAM Binding Sites Promotes Spatial Learning and Neural Plasticity in the Hippocampus. PLoS ONE, 2011, 6, e23433.	2.5	21
47	Functional Hallmarks of GABAergic Synapse Maturation and the Diverse Roles of Neurotrophins. Frontiers in Cellular Neuroscience, 2011, 5, 13.	3.7	20
48	Synaptic plasticity and Ca²⁺ signalling in astrocytes. Neuron Glia Biology, 2010, 6, 141-146.	1.6	19
49	Does rapid and physiological astrocyteâ€“neuron signalling amplify epileptic activity?. Journal of Physiology, 2017, 595, 1917-1927.	2.9	19
50	Limited contribution of astroglial gap junction coupling to buffering of extracellular K⁺ in CA1 stratum radiatum. Glia, 2020, 68, 918-931.	4.9	19
51	Astrocytic TLR4 at the crossroads of inflammation and seizure susceptibility. Journal of Cell Biology, 2016, 215, 607-609.	5.2	18
52	Cortical Efferent Control of Subcortical Sensory Neurons by Synaptic Disinhibition. Cerebral Cortex, 2007, 17, 2039-2049.	2.9	17
53	Barreloid Borders and Neuronal Activity Shape Panglial Gap Junction-Coupled Networks in the Mouse Thalamus. Cerebral Cortex, 2016, 28, 213-222.	2.9	16
54	Serotonin receptor 4 regulates hippocampal astrocyte morphology and function. Glia, 2021, 69, 872-889.	4.9	15

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55	Asymmetric hemispheric representation of periictal heart rate modulation is individually lateralised. Epileptic Disorders, 2011, 13, 172-176.	1.3	11
56	Rangefinder: A Semisynthetic FRET Sensor Design Algorithm. ACS Sensors, 2016, 1, 1286-1290.	7.8	11
57	Disruption of Glutamate Transport and Homeostasis by Acute Metabolic Stress. Frontiers in Cellular Neuroscience, 2021, 15, 637784.	3.7	10
58	Early onset of glutamatergic and GABAergic synaptic activity in the visual layers of the rodent superior colliculus. International Journal of Developmental Neuroscience, 2001, 19, 255-261.	1.6	9
59	A Rationally and Computationally Designed Fluorescent Biosensor for <scp>d</scp>-Serine. ACS Sensors, 2021, 6, 4193-4205.	7.8	8
60	Rapid Fluorescence Lifetime Imaging Reveals That TRPV4 Channels Promote Dysregulation of Neuronal Na⁺in Ischemia. Journal of Neuroscience, 2022, 42, 552-566.	3.6	8
61	Heterogeneous voltage dependence of interneuron resonance in the hippocampal stratum radiatum of adult rats. Synapse, 2011, 65, 1378-1381.	1.2	6
62	Hierarchical spike clustering analysis for investigation of interneuron heterogeneity. Neuroscience Letters, 2016, 619, 86-91.	2.1	5
63	Elucidating regulators of astrocytic Ca²⁺ signaling via multiâ€threshold event detection (<scp>MTED</scp>). Glia, 2021, 69, 2798-2811.	4.9	3
64	Matters arisingâ€"Authors response: Is it possible to estimate the SUDEP risk in people with chronic, medically refractory epilepsy?. Epilepsy Research, 2010, 90, 311-312.	1.6	2
65	Diversity of synaptic astrocyteâ€“neuron signaling. E-Neuroforum, 2015, 6, 79-83.	0.1	2
66	Molecular mechanisms of astrocyte-neuron signaling. Brain Research Bulletin, 2018, 136, 1-2.	3.0	1
67	Vielfalt lokaler Interaktionen zwischen Astrozyten und Neuronen. E-Neuroforum, 2015, 21, 112-116.	0.1	0
68	Diversity of synaptic astrocyteâ€“neuron signaling. E-Neuroforum, 2015, 21, .	0.1	0