Christian Steinhauser

List of Publications by Year
in descending order

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Version: 2024-02-01

132	13,169	28242	24232
papers	citations	55 h-index	110 g-index

134	134	134	11457
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reactive astrocyte nomenclature, definitions, and future directions. Nature Neuroscience, 2021, 24, 312-325.	7.1	1,098
2	Brain tumour cells interconnect to a functional and resistant network. Nature, 2015, 528, 93-98.	13.7	787
3	Astrocyte dysfunction in neurological disorders: a molecular perspective. Nature Reviews Neuroscience, 2006, 7, 194-206.	4.9	701
4	Astrocytes contain a vesicular compartment that is competent for regulated exocytosis of glutamate. Nature Neuroscience, 2004, 7, 613-620.	7.1	637
5	Astrocytes: a central element in neurological diseases. Acta Neuropathologica, 2016, 131, 323-345.	3.9	597
6	The Impact of Astrocytic Gap Junctional Coupling on Potassium Buffering in the Hippocampus. Journal of Neuroscience, 2006, 26, 5438-5447.	1.7	511
7	Ion channels in glial cells. Brain Research Reviews, 2000, 32, 380-412.	9.1	442
8	Segregated Expression of AMPA-Type Glutamate Receptors and Glutamate Transporters Defines Distinct Astrocyte Populations in the Mouse Hippocampus. Journal of Neuroscience, 2003, 23, 1750-1758.	1.7	400
9	News on glutamate receptors in glial cells. Trends in Neurosciences, 1996, 19, 339-345.	4.2	311
10	Functional changes in astroglial cells in epilepsy. Glia, 2006, 54, 358-368.	2.5	278
11	Astrocyte uncoupling as a cause of human temporal lobe epilepsy. Brain, 2015, 138, 1208-1222.	3.7	257
12	Accelerated Hippocampal Spreading Depression and Enhanced Locomotory Activity in Mice with Astrocyte-Directed Inactivation of Connexin43. Journal of Neuroscience, 2003, 23, 766-776.	1.7	247
13	Connexin 47 (Cx47)-Deficient Mice with Enhanced Green Fluorescent Protein Reporter Gene Reveal Predominant Oligodendrocytic Expression of Cx47 and Display Vacuolized Myelin in the CNS. Journal of Neuroscience, 2003, 23, 4549-4559.	1.7	246
14	Astrocytes in the hippocampus of patients with temporal lobe epilepsy display changes in potassium conductances. European Journal of Neuroscience, 2000, 12, 2087-2096.	1.2	241
15	Astrocyte dysfunction in epilepsy. Brain Research Reviews, 2010, 63, 212-221.	9.1	228
16	Commonalities in epileptogenic processes from different acute brain insults: Do they translate?. Epilepsia, 2018, 59, 37-66.	2.6	206
17	Analysis of Astroglial K+ Channel Expression in the Developing Hippocampus Reveals a Predominant Role of the Kir4.1 Subunit. Journal of Neuroscience, 2009, 29, 7474-7488.	1.7	199
18	Role of Astrocytes in Epilepsy. Cold Spring Harbor Perspectives in Medicine, 2015, 5, a022434-a022434.	2.9	181

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19	Seizures preferentially stimulate proliferation of radial glia-like astrocytes in the adult dentate gyrus: functional and immunocytochemical analysis. European Journal of Neuroscience, 2003, 18, 2769-2778.	1.2	173
20	Distinct types of astroglial cells in the hippocampus differ in gap junction coupling. Glia, 2004, 48, 36-43.	2.5	172
21	Neuron-glia synapses in the brain. Brain Research Reviews, 2010, 63, 130-137.	9.1	168
22	Astrocyte dysfunction in temporal lobe epilepsy: K⁺ channels and gap junction coupling. Glia, 2012, 60, 1192-1202.	2.5	168
23	Epilepsy and astrocyte energy metabolism. Glia, 2018, 66, 1235-1243.	2.5	158
24	Developmental regulation of Na+ and K+ conductances in glial cells of mouse hippocampal brain slices. Glia, 1995, 15, 173-187.	2.5	144
25	Impact of aquaporinâ€4 channels on K⁺ buffering and gap junction coupling in the hippocampus. Glia, 2011, 59, 973-980.	2.5	142
26	Distribution of P2X receptors on astrocytes in juvenile rat hippocampus. Glia, 2001, 36, 11-21.	2.5	139
27	Synaptic transmission onto hippocampal glial cells with hGFAP promoter activity. Journal of Cell Science, 2005, 118, 3791-3803.	1.2	139
28	Functional and Molecular Properties of Human Astrocytes in Acute Hippocampal Slices Obtained from Patients with Temporal Lobe Epilepsy. Epilepsia, 2000, 41, S181-S184.	2.6	129
29	Glial Cells in the Mouse Hippocampus Express AMPA Receptors with an Intermediate Ca2+Permeability. European Journal of Neuroscience, 1995, 7, 1872-1881.	1.2	127
30	Glial modulation of synaptic transmission in the hippocampus. Glia, 2004, 47, 249-257.	2.5	127
31	Connexin expression by radial glia-like cells is required for neurogenesis in the adult dentate gyrus. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11336-11341.	3.3	127
32	Neuronâ€“astrocyte signaling and epilepsy. Experimental Neurology, 2013, 244, 4-10.	2.0	125
33	Kainate activates Ca2+-permeable glutamate receptors and blocks voltage-gated K+ currents in glial cells of mouse hippocampal slices. Pflugers Archiv European Journal of Physiology, 1994, 426, 310-319.	1.3	122
34	Oligodendrocytes in the Mouse Corpus Callosum Maintain Axonal Function by Delivery of Glucose. Cell Reports, 2018, 22, 2383-2394.	2.9	111
35	Characterization of Panglial Gap Junction Networks in the Thalamus, Neocortex, and Hippocampus Reveals a Unique Population of Glial Cells. Cerebral Cortex, 2015, 25, 3420-3433.	1.6	108
36	Glial membrane channels and receptors in epilepsy: impact for generation and spread of seizure activity. European Journal of Pharmacology, 2002, 447, 227-237.	1.7	107

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37	NG2â€expressing cells in the nervous system revealed by the NG2â€EYFPâ€knockin mouse. Genesis, 2008, 46, 743-757.	0.8	107
38	Effects of Phenytoin, Carbamazepine, and Gabapentin on Calcium Channels in Hippocampal Granule Cells from Patients with Temporal Lobe Epilepsy. Epilepsia, 1998, 39, 355-363.	2.6	106
39	AMPA Receptor-Mediated Modulation of Inward Rectifier K+ Channels in Astrocytes of Mouse Hippocampus. Molecular and Cellular Neurosciences, 2002, 19, 447-458.	1.0	102
40	Astrocytic function and its alteration in the epileptic brain. Epilepsia, 2008, 49, 3-12.	2.6	99
41	Gray Matter NG2 Cells Display Multiple Ca2+-Signaling Pathways and Highly Motile Processes. PLoS ONE, 2011, 6, e17575.	1.1	99
42	Ionotropic glutamate receptors in astrocytes. Progress in Brain Research, 2001, 132, 287-299.	0.9	81
43	Enhanced Relative Expression of Glutamate Receptor 1 Flip AMPA Receptor Subunits in Hippocampal Astrocytes of Epilepsy Patients with Ammon's Horn Sclerosis. Journal of Neuroscience, 2004, 24, 1996-2003.	1.7	81
44	Plaqueâ€dependent morphological and electrophysiological heterogeneity of microglia in an <scp>A</scp>lzheimer's disease mouse model. Glia, 2018, 66, 1464-1480.	2.5	79
45	Versatile and Simple Approach to Determine Astrocyte Territories in Mouse Neocortex and Hippocampus. PLoS ONE, 2013, 8, e69143.	1.1	79
46	Identified glial cells in the early postnatal mouse hippocampus display different types of Ca2+ currents. Glia, 1996, 17, 181-194.	2.5	78
47	Mechanisms underlying bloodâ€“brain barrier dysfunction in brain pathology and epileptogenesis: Role of astroglia. Epilepsia, 2012, 53, 53-59.	2.6	75
48	Properties of voltage-activated Na+ and K+ currents in mouse hippocampal glial cells in situ and after acute isolation from tissue slices. Pflugers Archiv European Journal of Physiology, 1994, 428, 610-620.	1.3	74
49	Lack of P2X receptor mediated currents in astrocytes and GluR type glial cells of the hippocampal CA1 region. Glia, 2007, 55, 1648-1655.	2.5	73
50	Role of astroglial connexin30 in hippocampal gap junction coupling. Glia, 2011, 59, 511-519.	2.5	73
51	AMPA receptor subunits expressed by single astrocytes in the juvenile mouse hippocampus. Molecular Brain Research, 1997, 47, 286-294.	2.5	69
52	Subcellular reorganization and altered phosphorylation of the astrocytic gap junction protein connexin43 in human and experimental temporal lobe epilepsy. Glia, 2017, 65, 1809-1820.	2.5	67
53	Analysis of AMPA Receptor Properties During Postnatal Development of Mouse Hippocampal Astrocytes. Journal of Neurophysiology, 1997, 78, 2916-2923.	0.9	64
54	Classification of projection neurons and interneurons in the rat lateral amygdala based upon cluster analysis. Molecular and Cellular Neurosciences, 2006, 33, 57-67.	1.0	64

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55	Heterogeneity in expression of functional ionotropic glutamate and GABA receptors in astrocytes across brain regions: insights from the thalamus. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130602.	1.8	64
56	Functional redundancy and compensation among members of gap junction protein families?. Biochimica Et Biophysica Acta - Biomembranes, 2012, 1818, 1971-1984.	1.4	59
57	Spatial properties of astrocyte gap junction coupling in the rat hippocampus. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130600.	1.8	59
58	Lesion-induced changes of electrophysiological properties in astrocytes of the rat dentate gyrus. , 1999, 28, 166-174.		56
59	Albumin is taken up by hippocampal NG2 cells and astrocytes and decreases gap junction coupling. Epilepsia, 2012, 53, 1898-1906.	2.6	54
60	Rapid sodium signaling couples glutamate uptake to breakdown of ATP in perivascular astrocyte endfeet. Glia, 2017, 65, 293-308.	2.5	53
61	Postnatal Down-Regulation of the GABAA Receptor Î³2 Subunit in Neocortical NG2 Cells Accompanies Synaptic-to-Extrasynaptic Switch in the GABAergic Transmission Mode. Cerebral Cortex, 2015, 25, 1114-1123.	1.6	47
62	Altered Kir and gap junction channels in temporal lobe epilepsy. Neurochemistry International, 2013, 63, 682-687.	1.9	46
63	Novel astrocyte targets. Neuroscientist, 2015, 21, 62-83.	2.6	46
64	Properties of human astrocytes and NG2 glia. Glia, 2020, 68, 756-767.	2.5	46
65	Changes in Flip/Flop Splicing of Astroglial AMPA Receptors in Human Temporal Lobe Epilepsy. Epilepsia, 2002, 43, 162-167.	2.6	45
66	Diversity of astrocyte potassium channels: An update. Brain Research Bulletin, 2018, 136, 26-36.	1.4	44
67	Expression of the Â2-Subunit Distinguishes Synaptic and Extrasynaptic GABAA Receptors in NG2 Cells of the Hippocampus. Journal of Neuroscience, 2013, 33, 12030-12040.	1.7	43
68	Kir4.1 channels mediate a depolarization of hippocampal astrocytes under hyperammonemic conditions in situ. Glia, 2012, 60, 965-978.	2.5	40
69	Chemically-induced TLE models: Topical application. Journal of Neuroscience Methods, 2016, 260, 53-61.	1.3	40
70	Analysis of ion channel expression by astrocytes in red nucleus brain stem slices of the rat. Glia, 1997, 19, 234-246.	2.5	38
71	Astrocytes and Epilepsy. Neurochemical Research, 2021, 46, 2687-2695.	1.6	32
72	Experimental febrile seizures impair interastrocytic gap junction coupling in juvenile mice. Journal of Neuroscience Research, 2016, 94, 804-813.	1.3	30

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73	Physiological impact of CB1 receptor expression by hippocampal GABAergic interneurons. Pflugers Archiv European Journal of Physiology, 2016, 468, 727-737.	1.3	30
74	Ca2+-permeable AMPA receptors in mouse olfactory bulb astrocytes. Scientific Reports, 2017, 7, 44817.	1.6	30
75	Germ-Line Recombination Activity of the Widely Used hGFAP-Cre and Nestin-Cre Transgenes. PLoS ONE, 2013, 8, e82818.	1.1	30
76	Dual reporter approaches for identification of Cre efficacy and astrocyte heterogeneity. FASEB Journal, 2012, 26, 4576-4583.	0.2	28
77	Astrocytes and oligodendrocytes in the thalamus jointly maintain synaptic activity by supplying metabolites. Cell Reports, 2021, 34, 108642.	2.9	27
78	Constitutive deletion of astrocytic connexins aggravates kainateâ€induced epilepsy. Glia, 2020, 68, 2136-2147.	2.5	26
79	Electrophysiologic characteristics of glial cells. Hippocampus, 1993, 3, 113-123.	0.9	25
80	Connexin-43 Gap Junctions Are Responsible for the Hypothalamic Tanycyte-Coupled Network. Frontiers in Cellular Neuroscience, 2018, 12, 406.	1.8	25
81	Changes in splice variant expression and subunit assembly of AMPA receptors during maturation of hippocampal astrocytes. Molecular and Cellular Neurosciences, 2003, 22, 248-258.	1.0	24
82	Polarized distribution of AMPA, but not GABA_A, receptors in radial gliaâ€like cells of the adult dentate gyrus. Glia, 2013, 61, 1146-1154.	2.5	24
83	Changes in the proliferative capacity of NG2 cell subpopulations during postnatal development of the mouse hippocampus. Brain Structure and Function, 2017, 222, 831-847.	1.2	23
84	Cx43 carboxyl terminal domain determines AQP4 and Cx30 endfoot organization and blood brain barrier permeability. Scientific Reports, 2021, 11, 24334.	1.6	23
85	Quality control of astrocyteâ€directed Cre transgenic mice: The benefits of a direct link between loss of gene expression and reporter activation. Glia, 2009, 57, 680-692.	2.5	22
86	The NG2 Protein Is Not Required for Glutamatergic Neuronâ€“NG2 Cell Synaptic Signaling. Cerebral Cortex, 2016, 26, 51-57.	1.6	22
87	Astrocytic GABA Accumulation in Experimental Temporal Lobe Epilepsy. Frontiers in Neurology, 2020, 11, 614923.	1.1	21
88	Heterogeneity and function of hippocampal macroglia. Cell and Tissue Research, 2018, 373, 653-670.	1.5	20
89	The Proapoptotic BCL-2 Homology Domain 3-Only Protein Bim Is Not Critical for Acute Excitotoxic Cell Death. Journal of Neuropathology and Experimental Neurology, 2009, 68, 102-110.	0.9	19
90	Functional anisotropic panglial networks in the lateral superior olive. Glia, 2016, 64, 1892-1911.	2.5	19

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91	Limited contribution of astroglial gap junction coupling to buffering of extracellular K⁺ in CA1 stratum radiatum. Glia, 2020, 68, 918-931.	2.5	19
92	Augmentation of Ca2+ signaling in astrocytic endfeet in the latent phase of temporal lobe epilepsy. Frontiers in Cellular Neuroscience, 2015, 9, 49.	1.8	18
93	Astrocytic TLR4 at the crossroads of inflammation and seizure susceptibility. Journal of Cell Biology, 2016, 215, 607-609.	2.3	18
94	Connexin30 and Connexin43 show a time-of-day dependent expression in the mouse suprachiasmatic nucleus and modulate rhythmic locomotor activity in the context of chronodisruption. Cell Communication and Signaling, 2019, 17, 61.	2.7	18
95	Morphological study of a connexin 43â€GFP reporter mouse highlights glial heterogeneity, amacrine cells, and olfactory ensheathing cells. Journal of Neuroscience Research, 2017, 95, 2182-2194.	1.3	17
96	Barreloid Borders and Neuronal Activity Shape Panglial Gap Junction-Coupled Networks in the Mouse Thalamus. Cerebral Cortex, 2016, 28, 213-222.	1.6	16
97	Differential regulation of chloride homeostasis and GABAergic transmission in the thalamus. Scientific Reports, 2018, 8, 13929.	1.6	15
98	TNFÎ±-Driven Astrocyte Purinergic Signaling during Epileptogenesis. Trends in Molecular Medicine, 2019, 25, 70-72.	3.5	15
99	Uncoupling of the Astrocyte Syncytium Differentially Affects AQP4 Isoforms. Cells, 2020, 9, 382.	1.8	15
100	Cell death of hippocampal CA1 astrocytes during early epileptogenesis. Epilepsia, 2021, 62, 1569-1583.	2.6	15
101	Molecular and functional properties of neurons in the human lateral amygdala. Molecular and Cellular Neurosciences, 2006, 31, 210-217.	1.0	14
102	Ultrastructural and functional characterization of satellitosis in the human lateral amygdala associated with Ammonâ€™s horn sclerosis. Acta Neuropathologica, 2009, 117, 545-555.	3.9	14
103	Functional characterization of P2X3receptors fused with fluorescent proteins. Molecular Membrane Biology, 2005, 22, 497-506.	2.0	13
104	Collective cell migration of thyroid carcinoma cells: a beneficial ability to override unfavourable substrates. Cellular Oncology (Dordrecht), 2017, 40, 63-76.	2.1	12
105	Connexin43, but not connexin30, contributes to adult neurogenesis in the dentate gyrus. Brain Research Bulletin, 2018, 136, 91-100.	1.4	12
106	Astrocyte dysfunction in temporal lobe epilepsy. Epilepsia, 2010, 51, 54-54.	2.6	10
107	Characterization of cytoplasmic polyadenylation element binding 2 protein expression and its RNA binding activity. Hippocampus, 2015, 25, 630-642.	0.9	10
108	Amyloidâ€i² plaques affect astrocyte Kir4.1 protein expression but not function in the dentate gyrus of APP / PS1 mice. Glia, 2022, 70, 748-767.	2.5	10

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109	Nitric oxideâ€mediated signal transmission in bladder vasculature underlies the therapeutic actions of PDE5 inhibitors in the rat. British Journal of Pharmacology, 2021, 178, 1073-1094.	2.7	9
110	Initiation of Experimental Temporal Lobe Epilepsy by Early Astrocyte Uncoupling Is Independent of TGFÎ²R1/ALK5 Signaling. Frontiers in Neurology, 2021, 12, 660591.	1.1	9
111	AMPA receptors and seizures mediate hippocampal radial gliaâ€like stem cell proliferation. Glia, 2018, 66, 2397-2413.	2.5	8
112	New Phosphospecific Antibody Reveals Isoform-Specific Phosphorylation of CPEB3 Protein. PLoS ONE, 2016, 11, e0150000.	1.1	8
113	pH-Sensitive K+ Currents and Properties of K2P Channels in Murine Hippocampal Astrocytes. Advances in Protein Chemistry and Structural Biology, 2016, 103, 263-294.	1.0	7
114	Anisotropic Panglial Coupling Reflects Tonotopic Organization in the Inferior Colliculus. Frontiers in Cellular Neuroscience, 2018, 12, 431.	1.8	7
115	Lipoprotein receptor loss in forebrain radial glia results in neurological deficits and severe seizures. Glia, 2020, 68, 2517-2549.	2.5	7
116	A Cellular Assay for the Identification and Characterization of Connexin Gap Junction Modulators. International Journal of Molecular Sciences, 2021, 22, 1417.	1.8	7
117	Role of Astrocytes in Epilepsy. , 2009, , 649-671.		7
118	Altered splicing leads to reduced activation of CPEB3 in high-grade gliomas. Oncotarget, 0, 7, 41898-41912.	0.8	7
119	Editorial: Glial Dysfunction in Epileptogenesis. Frontiers in Neurology, 2021, 12, 716308.	1.1	6
120	Functional Analysis of Embryonic Stem Cellâ€“Derived Glial Cells after Integration into Hippocampal Slice Cultures. Stem Cells and Development, 2008, 17, 1141-1152.	1.1	5
121	Synaptic processesâ€”The role of glial cells. Brain Research Reviews, 2010, 63, 1.	9.1	5
122	Neuronâ€“glia interaction in epilepsy. Journal of Neuroscience Research, 2016, 94, 779-780.	1.3	5
123	Auxiliary Subunits Control Function and Subcellular Distribution of AMPA Receptor Complexes in NG2 Glia of the Developing Hippocampus. Frontiers in Cellular Neuroscience, 2021, 15, 669717.	1.8	3
124	Neuronâ€“glia synapses in the brain: properties, diversity and functions of NG2 glia. E-Neuroforum, 2015, 6, 73-77.	0.2	2
125	Ion channels in astrocytes. , 2004, , 187-213.		1
126	Crucial Role for Astrocytes in Epilepsy. Colloquium Series on Neuroglia in Biology and Medicine From Physiology To Disease, 2015, 2, 1-89.	0.5	1

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127	Crucial Role for Astrocytes in Epilepsy. , 2014, , 155-186.		1
128	Physiology and Function of Glial Gap JunctionsÂin the Hippocampus. , 2013, , 19-27.		0
129	Neuronâ€“glia synapses in the brain: properties, diversity and functions of NG2 glia. E-Neuroforum, 2015, 21, .	0.2	0
130	Response: Astrocytes as alternative targets for more efficient antiepileptogenic drugs. Epilepsia, 2021, 62, 2299-2300.	2.6	0
131	Neuron-Glia Synapsen im Gehirn: Eigenschaften, DiversitÃt und Funktionen von NG2 Glia. E-Neuroforum, 2015, 21, .	0.2	0
132	Cover Image, Volume 70, Issue 4. Glia, 2022, 70, .	2.5	0