Christophe Mulle

List of Publications by Year
in descending order

102 papers	7,907 citations	44069 48 h-index	53230 85 g-index
109 all docs	109 docs citations	109 times ranked	8146 citing authors

#	Article	IF	Citations
1	Altered synaptic physiology and reduced susceptibility to kainate-induced seizures in GluR6-deficient mice. Nature, 1998, 392, 601-605.	27.8	450
2	Mitochondrial CB1 receptors regulate neuronal energy metabolism. Nature Neuroscience, 2012, 15, 558-564.	14.8	450
3	Calcium influx through nicotinic receptor in rat central neurons: Its relevance to cellular regulation. Neuron, 1992, 8, 135-143.	8.1	370
4	Adenosine A2A Receptors Are Essential for Long-Term Potentiation of NMDA-EPSCs atÂHippocampal Mossy Fiber Synapses. Neuron, 2008, 57, 121-134.	8.1	326
5	Presynaptic glutamate receptors: physiological functions and mechanisms of action. Nature Reviews Neuroscience, 2008, 9, 423-436.	10.2	296
6	Kainate receptors coming of age: milestones of two decades of research. Trends in Neurosciences, 2011, 34, 154-163.	8.6	241
7	Kainate receptors. Cell and Tissue Research, 2006, 326, 457-482.	2.9	230
8	Kainate Receptor-Mediated Responses in the CA1 Field of Wild-Type and GluR6-Deficient Mice. Journal of Neuroscience, 1999, 19, 653-663.	3.6	203
9	Rapid and Differential Regulation of AMPA and Kainate Receptors at Hippocampal Mossy Fibre Synapses by PICK1 and GRIP. Neuron, 2003, 37, 625-638.	8.1	196
10	Subunit Composition of Kainate Receptors in Hippocampal Interneurons. Neuron, 2000, 28, 475-484.	8.1	194
11	Zinc Dynamics and Action at Excitatory Synapses. Neuron, 2014, 82, 1101-1114.	8.1	184
12	Early synaptic deficits in the APP/PS1 mouse model of Alzheimerâ€™s disease involve neuronal adenosine A2A receptors. Nature Communications, 2016, 7, 11915.	12.8	184
13	Potentiation of nicotinic receptor response by external calcium in rat central neurons. Neuron, 1992, 8, 937-945.	8.1	180
14	Operation and plasticity of hippocampal CA3 circuits: implications for memory encoding. Nature Reviews Neuroscience, 2017, 18, 208-220.	10.2	147
15	Activityâ€dependent synaptic plasticity of NMDA receptors. Journal of Physiology, 2010, 588, 93-99.	2.9	141
16	An automated method to quantify and visualize colocalized fluorescent signals. Journal of Neuroscience Methods, 2005, 146, 42-49.	2.5	138
17	Distinct Subunits in Heteromeric Kainate Receptors Mediate Ionotropic and Metabotropic Function at Hippocampal Mossy Fiber Synapses. Journal of Neuroscience, 2005, 25, 11710-11718.	3.6	135
18	GluR7 is an essential subunit of presynaptic kainate autoreceptors at hippocampal mossy fiber synapses. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12181-12186.	7.1	127

#	ARTICLE	IF	CITATIONS
19	Profilin2 contributes to synaptic vesicle exocytosis, neuronal excitability, and novelty-seeking behavior. EMBO Journal, 2007, 26, 2991-3002.	7.8	122
20	Insulinâ€like growth factor 2 reverses memory and synaptic deficits in <scp>APP</scp> transgenic mice. EMBO Molecular Medicine, 2014, 6, 1246-1262.	6.9	114
21	Endogenous Activation of Kainate Receptors Regulates Glutamate Release and Network Activity in the Developing Hippocampus. Journal of Neuroscience, 2005, 25, 4473-4484.	3.6	105
22	Synaptic Localization and Activity of ADAM10 Regulate Excitatory Synapses through N-Cadherin Cleavage. Journal of Neuroscience, 2010, 30, 16343-16355.	3.6	102
23	Subcellular localization and trafficking of kainate receptors. Trends in Pharmacological Sciences, 2005, 26, 20-26.	8.7	100
24	Identification of a small-molecule inhibitor of the PICK1 PDZ domain that inhibits hippocampal LTP and LTD. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 413-418.	7.1	100
25	Recruitment of the Kainate Receptor Subunit Glutamate Receptor 6 by Cadherin/Catenin Complexes. Journal of Neuroscience, 2002, 22, 6426-6436.	3.6	94
26	Spatial distribution of kainate receptor subunit mRNA in the mouse basal ganglia and ventral mesencephalon. , 1997, 379, 541-562.		93
27	Postnatal maturation of mossy fibre excitatory transmission in mouse CA3 pyramidal cells: a potential role for kainate receptors. Journal of Physiology, 2004, 561, 27-37.	2.9	91
28	Functional GluR6 Kainate Receptors in the Striatum: Indirect Downregulation of Synaptic Transmission. Journal of Neuroscience, 2000, 20, 2175-2182.	3.6	88
29	Membrane Lipids Tune Synaptic Transmission by Direct Modulation of Presynaptic Potassium Channels. Neuron, 2014, 81, 787-799.	8.1	88
30	Subunit Composition and Alternative Splicing Regulate Membrane Delivery of Kainate Receptors. Journal of Neuroscience, 2004, 24, 2506-2515.	3.6	87
31	Kainate Receptors Act as Conditional Amplifiers of Spike Transmission at Hippocampal Mossy Fiber Synapses. Journal of Neuroscience, 2009, 29, 5000-5008.	3.6	83
32	Coassembly of Two GluR6 Kainate Receptor Splice Variants within a Functional Protein Complex. Neuron, 2005, 47, 555-566.	8.1	78
33	Photoaffinity labeling of the acetylcholine binding sites on the nicotinic receptor by an aryldiazonium derivative. Biochemistry, 1988, 27, 2337-2345.	2.5	77
34	Antagonism of recombinant and native GluK3-containing kainate receptors. Neuropharmacology, 2009, 56, 131-140.	4.1	77
35	Selective Block of Postsynaptic Kainate Receptors Reveals Their Function at Hippocampal Mossy Fiber Synapses. Cerebral Cortex, 2013, 23, 323-331.	2.9	73
36	Altered surface mGluR5 dynamics provoke synaptic NMDAR dysfunction and cognitive defects in Fmr1 knockout mice. Nature Communications, 2017, 8, 1103.	12.8	71

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37	Kainate receptors in the hippocampus. European Journal of Neuroscience, 2014, 39, 1835-1844.	2.6	69
38	Physiopathology of kainate receptors in epilepsy. Current Opinion in Pharmacology, 2015, 20, 83-88.	3.5	69
39	Exclusive photorelease of signalling lipids at the plasma membrane. Nature Communications, 2015, 6, 10056.	12.8	67
40	GluR6/KA2 Kainate Receptors Mediate Slow-Deactivating Currents. Journal of Neuroscience, 2008, 28, 6402-6406.	3.6	66
41	Synaptic activation of kainate receptors gates presynaptic CB1 signaling at GABAergic synapses. Nature Neuroscience, 2010, 13, 197-204.	14.8	62
42	CaMKII Metaplasticity Drives Aβ Oligomer-Mediated Synaptotoxicity. Cell Reports, 2018, 23, 3137-3145.	6.4	61
43	Gating and permeation of kainate receptors: differences unveiled. Trends in Pharmacological Sciences, 2010, 31, 516-522.	8.7	60
44	Zinc Potentiates GluK3 Glutamate Receptor Function by Stabilizing the Ligand Binding Domain Dimer Interface. Neuron, 2012, 76, 565-578.	8.1	59
45	Rabphilin 3A retains NMDA receptors at synaptic sites through interaction with GluN2A/PSD-95 complex. Nature Communications, 2015, 6, 10181.	12.8	59
46	Contribution of Aberrant GluK2-Containing Kainate Receptors to Chronic Seizures in Temporal Lobe Epilepsy. Cell Reports, 2014, 8, 347-354.	6.4	58
47	Deficits in Morphofunctional Maturation of Hippocampal Mossy Fiber Synapses in a Mouse Model of Intellectual Disability. Journal of Neuroscience, 2012, 32, 17882-17893.	3.6	57
48	Absence of spindle oscillations in the cat anterior thalamic nuclei. Brain Research, 1985, 334, 169-171.	2.2	55
49	NMDA receptorâ€“dependent metaplasticity at hippocampal mossy fiber synapses. Nature Neuroscience, 2011, 14, 691-693.	14.8	53
50	Potentiation of GABAergic synaptic transmission by AMPA receptors in mouse cerebellar stellate cells: changes during development. Journal of Physiology, 1998, 509, 817-831.	2.9	51
51	Spikeâ€Dependent Intrinsic Plasticity Increases Firing Probability in Rat Striatal Neurons In Vivo. Journal of Physiology, 2003, 550, 947-959.	2.9	48
52	Metabotropic action of postsynaptic kainate receptors triggers hippocampal long-term potentiation. Nature Neuroscience, 2017, 20, 529-539.	14.8	48
53	CaMKII-dependent phosphorylation of GluK5 mediates plasticity of kainate receptors. EMBO Journal, 2013, 32, 496-510.	7.8	47
54	Presynaptic failure in Alzheimer's disease. Progress in Neurobiology, 2020, 194, 101801.	5.7	46

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55	Formin 2 links neuropsychiatric phenotypes at young age to an increased risk for dementia. EMBO Journal, 2017, 36, 2815-2828.	7.8	45
56	Pharmacological Activation of Kainate Receptors Drives Endocannabinoid Mobilization. Journal of Neuroscience, 2011, 31, 3243-3248.	3.6	44
57	Presenilin-mediated cleavage of APP regulates synaptotagmin-7 and presynaptic plasticity. Nature Communications, 2018, 9, 4780.	12.8	44
58	KRIP6: A novel BTB/kelch protein regulating function of kainate receptors. Molecular and Cellular Neurosciences, 2007, 34, 539-550.	2.2	43
59	Parkin regulates kainate receptors by interacting with the GluK2 subunit. Nature Communications, 2014, 5, 5182.	12.8	42
60	Fast Regulation of Axonal Growth Cone Motility by Electrical Activity. Journal of Neuroscience, 2007, 27, 7684-7695.	3.6	41
61	High Firing Rate of Neonatal Hippocampal Interneurons Is Caused by Attenuation of Afterhyperpolarizing Potassium Currents by Tonically Active Kainate Receptors. Journal of Neuroscience, 2010, 30, 6507-6514.	3.6	41
62	Hippocampal Mossy Fibers Synapses in CA3 Pyramidal Cells Are Altered at an Early Stage in a Mouse Model of Alzheimer's Disease. Journal of Neuroscience, 2019, 39, 4193-4205.	3.6	41
63	Scribble1/AP2 Complex Coordinates NMDA Receptor Endocytic Recycling. Cell Reports, 2014, 9, 712-727.	6.4	40
64	Atypical Functional Properties of GluK3-Containing Kainate Receptors. Journal of Neuroscience, 2009, 29, 15499-15510.	3.6	38
65	Control of Spike Transfer at Hippocampal Mossy Fiber Synapses<i>In Vivo</i>by GABA_Aand GABA_BReceptor-Mediated Inhibition. Journal of Neuroscience, 2017, 37, 587-598.	3.6	38
66	Differential Trafficking of GluR7 Kainate Receptor Subunit Splice Variants. Journal of Biological Chemistry, 2005, 280, 22968-22976.	3.4	34
67	An anterograde rabies virus vector for high-resolution large-scale reconstruction of 3D neuron morphology. Brain Structure and Function, 2015, 220, 1369-1379.	2.3	30
68	Contactin-associated Protein 1 (Caspr1) Regulates the Traffic and Synaptic Content of Î±-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid (AMPA)-type Glutamate Receptors. Journal of Biological Chemistry, 2012, 287, 6868-6877.	3.4	28
69	Impaired hippocampusâ€dependent spatial flexibility and sociability represent autismâ€like phenotypes in GluK2 mice. Hippocampus, 2014, 24, 1059-1069.	1.9	28
70	Microgliaâ€derived purines modulate mossy fibre synaptic transmission and plasticity through P2X₄ and A₁ receptors. European Journal of Neuroscience, 2016, 43, 1366-1378.	2.6	27
71	Functional characterization of kainate receptors in the mouse nucleus accumbens. Neuropharmacology, 2002, 42, 603-611.	4.1	23
72	PGE 2 -EP3 signaling pathway impairs hippocampal presynaptic long-term plasticity in a mouse model of Alzheimer's disease. Neurobiology of Aging, 2017, 50, 13-24.	3.1	23

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73	Short-Term Plasticity of Kainate Receptor-Mediated EPSCs Induced by NMDA Receptors at Hippocampal Mossy Fiber Synapses. Journal of Neuroscience, 2007, 27, 3987-3993.	3.6	22
74	Identification and Structure-Function Study of Positive Allosteric Modulators of Kainate Receptors. Molecular Pharmacology, 2017, 91, 576-585.	2.3	21
75	APP accumulates with presynaptic proteins around amyloid plaques: A role for presynaptic mechanisms in Alzheimer's disease?. Alzheimer's and Dementia, 2022, 18, 2099-2116.	0.8	21
76	Seizure protein 6 controls glycosylation and trafficking of kainate receptor subunits GluK2 andÂGluK3. EMBO Journal, 2020, 39, e103457.	7.8	20
77	Developmental regulation of CB1-mediated spike-time dependent depression at immature mossy fiber-CA3 synapses. Scientific Reports, 2012, 2, 285.	3.3	19
78	Molecular determinants for the strictly compartmentalized expression of kainate receptors in CA3 pyramidal cells. Nature Communications, 2016, 7, 12738.	12.8	19
79	Experimental basis for the putative role of GluR6/kainate glutamate receptor subunit in Huntington's disease natural history. Neurobiology of Disease, 2004, 15, 667-675.	4.4	18
80	Impaired development of hippocampal mossy fibre synapses in mouse mutants for the presynaptic scaffold protein Bassoon. Journal of Physiology, 2010, 588, 2133-2145.	2.9	18
81	Regulation and dysregulation of neuronal circuits by KARs. Neuropharmacology, 2021, 197, 108699.	4.1	18
82	The effects of QX314 on thalamic neurons. Brain Research, 1985, 333, 350-354.	2.2	17
83	Kainate Induces Mobilization of Synaptic Vesicles at the Growth Cone through the Activation of Protein Kinase A. Cerebral Cortex, 2013, 23, 531-541.	2.9	17
84	Synaptic plasticity and spatial working memory are impaired in the CD mouse model of Williams-Beuren syndrome. Molecular Brain, 2016, 9, 76.	2.6	17
85	Control of Spike Transfer at Hippocampal Mossy Fiber Synapses In Vivo by GABA A and GABA B Receptor-Mediated Inhibition. Journal of Neuroscience, 2017, 37, 587-598.	3.6	17
86	Colocalization Colormap â€“an ImageJ Plugin for the Quantification and Visualization of Colocalized Signals. Neuroinformatics, 2020, 18, 661-664.	2.8	16
87	Peripheral maps and synapse elimination in the cerebellum of the rat. II. Representation of peripheral inputs through the climbing fiber pathway in the posterior vermis of X-irradiated adult rats. Brain Research, 1987, 421, 211-225.	2.2	15
88	Activityâ€dependent control of NMDA receptor subunit composition at hippocampal mossy fibre synapses. Journal of Physiology, 2018, 596, 703-716.	2.9	15
89	Peripheral maps and synapse elimination in the cerebellum of the rat.I. Representation of peripheral inputs through the climbing fiber pathway in the posterior vermis of the normal adult rat. Brain Research, 1987, 421, 194-210.	2.2	14
90	Theta Oscillations Coincide with Sustained Hyperpolarization in CA3 Pyramidal Cells, Underlying Decreased Firing. Cell Reports, 2020, 32, 107868.	6.4	13

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91	Profilin II Regulates the Exocytosis of Kainate Glutamate Receptors. Journal of Biological Chemistry, 2010, 285, 40060-40071.	3.4	12
92	Short-Term Regulation of Information Processing at the Corticoaccumbens Synapse. Journal of Neuroscience, 2005, 25, 11504-11512.	3.6	10
93	The glutamate receptor GluK2 contributes to the regulation of glucose homeostasis and its deterioration during aging. Molecular Metabolism, 2019, 30, 152-160.	6.5	10
94	Vangl2 in the Dentate Network Modulates Pattern Separation and Pattern Completion. Cell Reports, 2020, 31, 107743.	6.4	10
95	Endocytosis of the Glutamate Receptor Subunit GluK3 Controls Polarized Trafficking. Journal of Neuroscience, 2011, 31, 11645-11654.	3.6	8
96	Distinctive alteration of presynaptic proteins in the outer molecular layer of the dentate gyrus in Alzheimerâ€™s disease. Brain Communications, 2021, 3, fcab079.	3.3	7
97	Lighting up preâ€synaptic potentiation. Journal of Neurochemistry, 2021, 156, 270-272.	3.9	2
98	Electrophysiology of Neuronal Nicotinic Receptors in the CNS. , 1995, , 127-135.		2
99	(<i>S</i>)-2-Mercaptohistidine: A First Selective Orthosteric GluK3 Antagonist. ACS Chemical Neuroscience, 2022, 13, 1580-1587.	3.5	2
100	Membrane Lipids Tune Synaptic Transmission by Direct Modulation of Presynaptic Potassium Channels. Neuron, 2014, 81, 957.	8.1	1
101	The deletion of GluK2 alters cholinergic control of neuronal excitability. Cerebral Cortex, 2022, 32, 2907-2923.	2.9	1
102	Kainate Receptors. , 2007, , 53-62.		0