Laurent Venance

List of Publications by Year
in descending order

84 papers	5,204 citations	87888 38 h-index	98798 67 g-index
92 all docs	92 docs citations	92 times ranked	4942 citing authors

#	Article	IF	Citations
1	Inhibition by anandamide of gap junctions and intercellular calcium signalling in striatal astrocytes. Nature, 1995, 376, 590-594.	27.8	350
2	Optogenetic activation of septal cholinergic neurons suppresses sharp wave ripples and enhances theta oscillations in the hippocampus. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13535-13540.	7.1	297
3	Biosynthesis of an Endogenous Cannabinoid Precursor in Neurons and its Control by Calcium and cAMP. Journal of Neuroscience, 1996, 16, 3934-3942.	3.6	289
4	Connexin expression in electrically coupled postnatal rat brain neurons. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 10260-10265.	7.1	252
5	Intercellular calcium signaling and gap junctional communication in astrocytes. , 1998, 24, 50-64.		233
6	Mechanism Involved in Initiation and Propagation of Receptor-Induced Intercellular Calcium Signaling in Cultured Rat Astrocytes. Journal of Neuroscience, 1997, 17, 1981-1992.	3.6	229
7	Control and Plasticity of Intercellular Calcium Waves in Astrocytes: A Modeling Approach. Journal of Neuroscience, 2002, 22, 4850-4859.	3.6	210
8	Bidirectional Activity-Dependent Plasticity at Corticostriatal Synapses. Journal of Neuroscience, 2005, 25, 11279-11287.	3.6	207
9	Polymodal activation of the endocannabinoid system in the extended amygdala. Nature Neuroscience, 2011, 14, 1542-1547.	14.8	154
10	Altered gap junctional communication, intercellular signaling, and growth in cultured astrocytes deficient in connexin43. , 1997, 49, 528-540.		139
11	Contribution of gap junctional communication between tumor cells and astroglia to the invasion of the brain parenchyma by human glioblastomas. BMC Cell Biology, 2005, 6, 7.	3.0	131
12	Sphingosine-1-phosphate induces proliferation of astrocytes: regulation by intracellular signalling cascades. European Journal of Neuroscience, 2001, 13, 2067-2076.	2.6	126
13	Electrical and chemical transmission between striatal GABAergic output neurones in rat brain slices. Journal of Physiology, 2004, 559, 215-230.	2.9	114
14	GABAergic Circuits Control Spike-Timing-Dependent Plasticity. Journal of Neuroscience, 2013, 33, 9353-9363.	3.6	108
15	Distinct coincidence detectors govern the corticostriatal spike timing-dependent plasticity. Journal of Physiology, 2010, 588, 3045-3062.	2.9	105
16	Endothelins regulate astrocyte gap junctions in rat hippocampal slices. European Journal of Neuroscience, 2004, 19, 1005-1015.	2.6	97
17	Gap junctional communication and pharmacological heterogeneity in astrocytes cultured from the rat striatum. Journal of Physiology, 1998, 510, 429-440.	2.9	86
18	Cellâ€specific spikeâ€timingâ€dependent plasticity in GABAergic and cholinergic interneurons in corticostriatal rat brain slices. Journal of Physiology, 2008, 586, 265-282.	2.9	82

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19	Anandamide and WIN 55212-2 inhibit cyclic AMP formation through G-protein-coupled receptors distinct from CB1 cannabinoid receptors in cultured astrocytes. European Journal of Neuroscience, 1999, 11, 691-699.	2.6	81
20	Homotypic and Heterotypic Coupling Mediated by Gap Junctions During Glial Cell Differentiation In Vitro. European Journal of Neuroscience, 1995, 7, 451-461.	2.6	75
21	Contribution of astrocytic glutamate and GABA uptake to corticostriatal information processing. Journal of Physiology, 2011, 589, 2301-2319.	2.9	73
22	CYP46A1 gene therapy deciphers the role of brain cholesterol metabolism in Huntingtonâ€™s disease. Brain, 2019, 142, 2432-2450.	7.6	71
23	Cannabinoids inhibit the synaptic uptake of adenosine and dopamine in the rat and mouse striatum. European Journal of Pharmacology, 2011, 655, 38-45.	3.5	64
24	Endocannabinoids mediate bidirectional striatal spikeâ€timingâ€dependent plasticity. Journal of Physiology, 2015, 593, 2833-2849.	2.9	63
25	Electrical Synapses between Dopaminergic Neurons of the Substantia Nigra Pars Compacta. Journal of Neuroscience, 2005, 25, 291-298.	3.6	62
26	Modulation of Spike-Timing Dependent Plasticity: Towards the Inclusion of a Third Factor in Computational Models. Frontiers in Computational Neuroscience, 2018, 12, 49.	2.1	57
27	Astrocytes gate Hebbian synaptic plasticity in the striatum. Nature Communications, 2016, 7, 13845.	12.8	56
28	Effects of acute dopamine depletion on the electrophysiological properties of striatal neurons. Neuroscience Research, 2007, 58, 305-316.	1.9	55
29	Chemical transmission between dopaminergic neuron pairs. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4904-4909.	7.1	55
30	Functional mu opioid receptors are expressed in cholinergic interneurons of the rat dorsal striatum: territorial specificity and diurnal variation. European Journal of Neuroscience, 2005, 21, 3301-3309.	2.6	54
31	Endocannabinoid dynamics gate spike-timing dependent depression and potentiation. ELife, 2016, 5, e13185.	6.0	54
32	ATP-induced inhibition of gap junctional communication is enhanced by interleukin-1 Î² treatment in cultured astrocytes. Neuroscience, 2004, 126, 95-104.	2.3	53
33	The Effects of NMDA Subunit Composition on Calcium Influx and Spike Timing-Dependent Plasticity in Striatal Medium Spiny Neurons. PLoS Computational Biology, 2012, 8, e1002493.	3.2	53
34	Encoding of Odor Fear Memories in the Mouse Olfactory Cortex. Current Biology, 2019, 29, 367-380.e4.	3.9	52
35	Bridging the gap between striatal plasticity and learning. Current Opinion in Neurobiology, 2019, 54, 104-112.	4.2	52
36	Circulating Triglycerides Gate Dopamine-Associated Behaviors through DRD2-Expressing Neurons. Cell Metabolism, 2020, 31, 773-790.e11.	16.2	52

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37	Intracellular Impedance Measurements Reveal Non-ohmic Properties of the Extracellular Medium around Neurons. Biophysical Journal, 2016, 110, 234-246.	0.5	48
38	Spike-timing dependent plasticity in the striatum. Frontiers in Synaptic Neuroscience, 2010, 2, 6.	2.5	47
39	Electrical coupling between hippocampal astrocytes in rat brain slices. Neuroscience Research, 2009, 63, 236-243.	1.9	46
40	Presynaptic adenosine <scp>A_{2A}</scp> receptors dampen cannabinoid <scp>CB</scp>₁ receptorâ€mediated inhibition of corticostriatal glutamatergic transmission. British Journal of Pharmacology, 2015, 172, 1074-1086.	5.4	45
41	Control of Long-Term Plasticity by Glutamate Transporters. Frontiers in Synaptic Neuroscience, 2019, 11, 10.	2.5	45
42	Spike-timing dependent plasticity in striatal interneurons. Neuropharmacology, 2011, 60, 780-788.	4.1	41
43	Region-specific and state-dependent action of striatal GABAergic interneurons. Nature Communications, 2018, 9, 3339.	12.8	40
44	Asymmetric spike-timing dependent plasticity of striatal nitric oxide-synthase interneurons. Neuroscience, 2009, 160, 744-754.	2.3	38
45	Deep brain stimulation-guided optogenetic rescue of parkinsonian symptoms. Nature Communications, 2020, 11, 2388.	12.8	37
46	Subthalamic nucleus highâ€frequency stimulation generates a concomitant synaptic excitationâ€“inhibition in substantia nigra pars reticulata. Journal of Physiology, 2011, 589, 4189-4207.	2.9	34
47	A concurrent excitation and inhibition of dopaminergic subpopulations in response to nicotine. Scientific Reports, 2015, 5, 8184.	3.3	29
48	Dopamineâ€“endocannabinoid interactions mediate spike-timing-dependent potentiation in the striatum. Nature Communications, 2018, 9, 4118.	12.8	29
49	Heterogeneity of spike frequency adaptation among medium spiny neurones from the rat striatum. Neuroscience, 2003, 122, 77-92.	2.3	28
50	Connexin mRNA expression in single dopaminergic neurons of substantia nigra pars compacta. Neuroscience Research, 2006, 56, 419-426.	1.9	28
51	Microscale Inhomogeneity of Brain Tissue Distorts Electrical Signal Propagation. Journal of Neuroscience, 2013, 33, 2821-2827.	3.6	23
52	Lights on Endocannabinoid-Mediated Synaptic Potentiation. Frontiers in Molecular Neuroscience, 2020, 13, 132.	2.9	23
53	Brief Subthreshold Events Can Act as Hebbian Signals for Long-Term Plasticity. PLoS ONE, 2009, 4, e6557.	2.5	23
54	Robustness of STDP to spike timing jitter. Scientific Reports, 2018, 8, 8139.	3.3	22

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55	Endocannabinoid-LTP Mediated by CB1 and TRPV1 Receptors Encodes for Limited Occurrences of Coincident Activity in Neocortex. Frontiers in Cellular Neuroscience, 2018, 12, 182.	3.7	20
56	BDNF Controls Bidirectional Endocannabinoid Plasticity at Corticostriatal Synapses. Cerebral Cortex, 2020, 30, 197-214.	2.9	20
57	Developmental control of spike-timing-dependent plasticity by tonic GABAergic signaling in striatum. Neuropharmacology, 2017, 121, 261-277.	4.1	19
58	(R)-methanandamide inhibits receptor-induced calcium responses by depleting internal calcium stores in cultured astrocytes. Pflugers Archiv European Journal of Physiology, 1997, 434, 147-149.	2.8	18
59	Spike frequency adaptation is developmentally regulated in substantia nigra pars compacta dopaminergic neurons. Neuroscience, 2011, 192, 1-10.	2.3	18
60	Preservation of the hyperdirect pathway of basal ganglia in a rodent brain slice. Neuroscience, 2012, 215, 31-41.	2.3	17
61	Deletion of Maged1 in mice abolishes locomotor and reinforcing effects of cocaine. EMBO Reports, 2018, 19, .	4.5	16
62	Noise-Induced Synchronization and Antiresonance in Interacting Excitable Systems: Applications to Deep Brain Stimulation in Parkinsonâ€™s Disease. Physical Review X, 2020, 10, .	8.9	15
63	Concurrent Thalamostriatal and Corticostriatal Spike-Timing-Dependent Plasticity and Heterosynaptic Interactions Shape Striatal Plasticity Map. Cerebral Cortex, 2020, 30, 4381-4401.	2.9	14
64	Npas4 regulates medium spiny neuron physiology and gates cocaineâ€induced hyperlocomotion. EMBO Reports, 2021, 22, e51882.	4.5	14
65	Electrical Synapses in Basal Ganglia. Reviews in the Neurosciences, 2007, 18, 15-35.	2.9	12
66	Striatum expresses region-specific plasticity consistent with distinct memory abilities. Cell Reports, 2022, 38, 110521.	6.4	11
67	Magnitude and behavior of cross-talk effects in multichannel electrophysiology experiments. Journal of Neurophysiology, 2017, 118, 574-594.	1.8	9
68	Interplay of multiple pathways and activity-dependent rules in STDP. PLoS Computational Biology, 2018, 14, e1006184.	3.2	9
69	Engrams of Fast Learning. Frontiers in Cellular Neuroscience, 2020, 14, 575915.	3.7	9
70	Environmental enrichment shapes striatal spike-timing-dependent plasticity in vivo. Scientific Reports, 2019, 9, 19451.	3.3	8
71	Intercellular calcium signaling and gap junctional communication in astrocytes. Glia, 1998, 24, 50-64.	4.9	8
72	Cerebellar stimulation prevents Levodopa-induced dyskinesia in mice and normalizes activity in a motor network. Nature Communications, 2022, 13, .	12.8	7

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73	Intracellular Properties of Deep-Layer Pyramidal Neurons in Frontal Eye Field of Macaque Monkeys. Frontiers in Synaptic Neuroscience, 2021, 13, 725880.	2.5	6
74	Characterization and Regulation of Gap Junction Channels in Cultured Astrocytes. Neuroscience Intelligence Unit, 1996, , 135-157.	0.5	6
75	Extracellular and intracellular components ofÂtheÂimpedance of neural tissue. Biophysical Journal, 2022, 121, 869-885.	0.5	5
76	Altered gap junctional communication, intercellular signaling, and growth in cultured astrocytes deficient in connexin43. Journal of Neuroscience Research, 1997, 49, 528-540.	2.9	3
77	Editorial: Thalamic Interactions With the Basal Ganglia: Thalamostriatal System and Beyond. Frontiers in Systems Neuroscience, 2022, 16, 883094.	2.5	3
78	Analysis of Connexin Expression in Brain Slices by Single-Cell Reverse Transcriptase Polymerase Chain Reaction. , 2001, 154, 143-157.		2
79	Microscale impedance measurements suggest that ionic diffusion is implicated in generating extracellular potentials. BMC Neuroscience, 2014, 15, .	1.9	2
80	A further step in the characterization of neuronal gap junctions. NeuroReport, 2000, 11, F7-F8.	1.2	0
81	Gap Junctions in the Basal Ganglia. , 2013, , 149-163.		0
82	I13â€…Striatal regulation of cholesterol metabolism by CYP46A1 is associated with multiple benefits in huntingtonâ€™s disease knock-in mice models. , 2018, , .		0
83	Christian Giaume (November 1951â€“July 2019). Glia, 2020, 68, 1321-1328.	4.9	0
84	Electrical Synapses between Output Neurones of the Striatum and between Neurones of the Substantia Nigra Pars Compacta. , 2005, , 493-502.		0