Bruno G Frenguelli

List of Publications by Year
in descending order

76 papers	6,982 citations	126907 33 h-index	71685 76 g-index
80 all docs	80 docs citations	80 times ranked	8327 citing authors

#	Article	IF	Citations
1	Deficient long-term memory in mice with a targeted mutation of the cAMP-responsive element-binding protein. Cell, 1994, 79, 59-68.	28.9	1,725
2	Calmodulin-dependent protein kinase kinase-Î² is an alternative upstream kinase for AMP-activated protein kinase. Cell Metabolism, 2005, 2, 9-19.	16.2	1,397
3	Mitochondrial Membrane Potential and Glutamate Excitotoxicity in Cultured Cerebellar Granule Cells. Journal of Neuroscience, 2000, 20, 7208-7219.	3.6	290
4	Temporal and mechanistic dissociation of ATP and adenosine release during ischaemia in the mammalian hippocampus. Journal of Neurochemistry, 2007, 101, 1400-1413.	3.9	205
5	Release of Adenosine and ATP During Ischemia and Epilepsy. Current Neuropharmacology, 2009, 7, 160-179.	2.9	203
6	Dopaminergic modulation of the persistence of one-trial hippocampus-dependent memory. Learning and Memory, 2006, 13, 760-769.	1.3	198
7	Adenosine and ATP Link PCO2 to Cortical Excitability via pH. Neuron, 2005, 48, 1011-1023.	8.1	182
8	Direct measurement of adenosine release during hypoxia in the CA1 region of the rat hippocampal slice. Journal of Physiology, 2000, 526, 143-155.	2.9	160
9	Synaptic Tagging and Capture: Differential Role of Distinct Calcium/Calmodulin Kinases in Protein Synthesis-Dependent Long-Term Potentiation. Journal of Neuroscience, 2010, 30, 4981-4989.	3.6	155
10	Modulation of native and recombinant GABAA receptors by endogenous and synthetic neuroactive steroids. Brain Research Reviews, 2001, 37, 68-80.	9.0	145
11	AICA riboside both activates AMP-activated protein kinase and competes with adenosine for the nucleoside transporter in the CA1 region of the rat hippocampus. Journal of Neurochemistry, 2004, 88, 1272-1282.	3.9	131
12	The Î±-Ca2+/calmodulin kinase II: A bidirectional modulator of presynaptic plasticity. Neuron, 1995, 14, 591-597.	8.1	125
13	miR-132/212 Knockout Mice Reveal Roles for These miRNAs in Regulating Cortical Synaptic Transmission and Plasticity. PLoS ONE, 2013, 8, e62509.	2.5	122
14	High-resolution real-time recording with microelectrode biosensors reveals novel aspects of adenosine release during hypoxia in rat hippocampal slices. Journal of Neurochemistry, 2003, 86, 1506-1515.	3.9	100
15	Endogenous adenosine modulates epileptiform activity in rat hippocampus in a receptor subtype-dependent manner. European Journal of Neuroscience, 2004, 19, 2539-2550.	2.6	100
16	Mitochondrial Dysfunction and Dendritic Beading during Neuronal Toxicity. Journal of Biological Chemistry, 2007, 282, 26235-26244.	3.4	98
17	Surface Charge Visualization at Viable Living Cells. Journal of the American Chemical Society, 2016, 138, 3152-3160.	13.7	98
18	Opportunities for improving animal welfare in rodent models of epilepsy and seizures. Journal of Neuroscience Methods, 2016, 260, 2-25.	2.5	93

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19	Astrocytic adenosine kinase regulates basal synaptic adenosine levels and seizure activity but not activity-dependent adenosine release in the hippocampus. Neuropharmacology, 2009, 56, 429-437.	4.1	87
20	Sustained elevation of extracellular adenosine and activation of A1 receptors underlie the post-ischaemic inhibition of neuronal function in rat hippocampus in vitro. Journal of Neurochemistry, 2006, 97, 1357-1368.	3.9	79
21	Phosphorylation influences neurosteroid modulation of synaptic GABAA receptors in rat CA1 and dentate gyrus neurones. Neuropharmacology, 2003, 45, 873-883.	4.1	78
22	A Depletable Pool of Adenosine in Area CA1 of the Rat Hippocampus. Journal of Neuroscience, 2001, 21, 2298-2307.	3.6	70
23	MSK1 Regulates Homeostatic and Experience-Dependent Synaptic Plasticity. Journal of Neuroscience, 2012, 32, 13039-13051.	3.6	67
24	The novel NTPDase inhibitor sodium polyoxotungstate (POM-1) inhibits ATP breakdown but also blocks central synaptic transmission, an action independent of NTPDase inhibition. Neuropharmacology, 2008, 55, 1251-1258.	4.1	62
25	Fast Nanoscale Surface Charge Mapping with Pulsed-Potential Scanning Ion Conductance Microscopy. Analytical Chemistry, 2016, 88, 10854-10859.	6.5	62
26	Homeostatic Control of Synaptic Activity by Endogenous Adenosine is Mediated by Adenosine Kinase. Cerebral Cortex, 2014, 24, 67-80.	2.9	54
27	Intracellular ATP Influences Synaptic Plasticity in Area CA1 of Rat Hippocampus via Metabolism to Adenosine and Activity-Dependent Activation of Adenosine A₁Receptors. Journal of Neuroscience, 2011, 31, 6221-6234.	3.6	51
28	An ion-pair reversed-phase HPLC method for determination of fresh tissue adenine nucleotides avoiding freezeâ€“thaw degradation of ATP. Analytical Biochemistry, 2009, 388, 108-114.	2.4	48
29	Plasticity of purine release during cerebral ischemia: clinical implications?. Journal of Cellular and Molecular Medicine, 2003, 7, 362-375.	3.6	47
30	Metabotropic glutamate receptors and calcium signalling in dendrites of hippocampal CA1 neurones. Neuropharmacology, 1993, 32, 1229-1237.	4.1	45
31	Pannexin-1-mediated ATP release from area CA3 drives mGlu5-dependent neuronal oscillations. Neuropharmacology, 2015, 93, 219-228.	4.1	45
32	Measurement of purine release with microelectrode biosensors. Purinergic Signalling, 2012, 8, 27-40.	2.2	41
33	Discovery of Novel Adenosine Receptor Agonists That Exhibit Subtype Selectivity. Journal of Medicinal Chemistry, 2016, 59, 947-964.	6.4	41
34	Intracellular Acidification Causes Adenosine Release During States of Hyperexcitability in the Hippocampus. Journal of Neurophysiology, 2009, 102, 1984-1993.	1.8	39
35	Minor contribution of ATP P2 receptors to electrically-evoked electrographic seizure activity in hippocampal slices: Evidence from purine biosensors and P2 receptor agonists and antagonists. Neuropharmacology, 2011, 61, 25-34.	4.1	32
36	A Neural Protection Racket: AMPK and the GABAB Receptor. Neuron, 2007, 53, 159-162.	8.1	29

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37	Localisation of adenine nucleotides in heat-stabilised mouse brains using ion mobility enabled MALDI imaging. International Journal of Mass Spectrometry, 2013, 345-347, 19-27.	1.5	29
38	Differential responses to NMDA receptor activation in rat hippocampal interneurons and pyramidal cells may underlie enhanced pyramidal cell vulnerability. European Journal of Neuroscience, 2005, 22, 3077-3090.	2.6	26
39	Differential-Concentration Scanning Ion Conductance Microscopy. Analytical Chemistry, 2017, 89, 12458-12465.	6.5	25
40	Selective activation of Gĵ±ob by an adenosine A1 receptor agonist elicits analgesia without cardiorespiratory depression. Nature Communications, 2022, 13, .	12.8	23
41	Electrogenic uptake contributes a major component of the depolarizing action of <scp>l</scp>â€glutamate in rat hippocampal slices. British Journal of Pharmacology, 1991, 102, 355-362.	5.4	22
42	Adrenoceptor subtype-specific acceleration of the hypoxic depression of excitatory synaptic transmission in area CA1 of the rat hippocampus. European Journal of Neuroscience, 2004, 20, 1555-1565.	2.6	22
43	Modulation of intracellular <scp>ATP</scp> determines adenosine release and functional outcome in response to metabolic stress in rat hippocampal slices and cerebellar granule cells. Journal of Neurochemistry, 2014, 128, 111-124.	3.9	22
44	The Purine Salvage Pathway and the Restoration of Cerebral ATP: Implications for Brain Slice Physiology and Brain Injury. Neurochemical Research, 2019, 44, 661-675.	3.3	22
45	Fluctuations in intracellular calcium responses to action potentials in single en passage presynaptic boutons of layer V neurons in neocortical slices.. Learning and Memory, 1996, 3, 150-159.	1.3	21
46	The Kinase Function of MSK1 Regulates BDNF Signaling to CREB and Basal Synaptic Transmission, But Is Not Required for Hippocampal Long-Term Potentiation or Spatial Memory. ENeuro, 2017, 4, ENEURO.0212-16.2017.	1.9	20
47	Ca2+stores and hippocampal synaptic plasticity. Seminars in Neuroscience, 1996, 8, 301-309.	2.2	19
48	Combined electrophysiological and biosensor approaches to study purinergic regulation of epileptiform activity in cortical tissue. Journal of Neuroscience Methods, 2016, 260, 202-214.	2.5	18
49	Purines: From Diagnostic Biomarkers to Therapeutic Agents in Brain Injury. Neuroscience Bulletin, 2020, 36, 1315-1326.	2.9	16
50	The effects of metabolic stress on glutamate receptor-mediated depolarizations in the in vitro rat hippocampal slice. Neuropharmacology, 1997, 36, 981-991.	4.1	15
51	Cannabinoid modulation of neuronal function after oxygen/glucose deprivation in area CA1 of the rat hippocampus. Neuropharmacology, 2007, 52, 1327-1335.	4.1	13
52	MSK1 regulates transcriptional induction of Arc/Arg3.1 in response to neurotrophins. FEBS Open Bio, 2017, 7, 821-834.	2.3	13
53	An AMPK-dependent regulatory pathway in tau-mediated toxicity. Biology Open, 2017, 6, 1434-1444.	1.2	13
54	Experience Recruits MSK1 to Expand the Dynamic Range of Synapses and Enhance Cognition. Journal of Neuroscience, 2020, 40, 4644-4660.	3.6	13

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55	Mitogen and Stress-activated Protein Kinase 1 Negatively Regulates Hippocampal Neurogenesis. Neuroscience, 2021, 452, 228-234.	2.3	11
56	Differential trafficking of adenosine receptors in hippocampal neurons monitored using GFP- and super-ecliptic pHluorin-tagged receptors. Neuropharmacology, 2011, 61, 1-11.	4.1	10
57	Volume-regulated anion channels do not contribute extracellular adenosine during the hypoxic depression of excitatory synaptic transmission in area CA1 of rat hippocampus. European Journal of Neuroscience, 2000, 12, 3064-3066.	2.6	9
58	Deciphering the Agonist Binding Mechanism to the Adenosine A1 Receptor. ACS Pharmacology and Translational Science, 2021, 4, 314-326.	4.9	9
59	Artificial Synapse: Spatiotemporal Heterogeneities in Dopamine Electrochemistry at a Carbon Fiber Ultramicroelectrode. ACS Measurement Science Au, 2021, 1, 6-10.	4.4	9
60	The influence of sensory experience on the glutamatergic synapse. Neuropharmacology, 2021, 193, 108620.	4.1	9
61	Magic-angle spinning NMR spectroscopy provides insight into the impact of small molecule uptake by G-quartet hydrogels. Materials Advances, 2020, 1, 2236-2247.	5.4	8
62	The glutamatergic synapse â€“ A key hub in neuronal metabolism, signalling and plasticity. Neuropharmacology, 2022, 207, 108945.	4.1	8
63	The combination of ribose and adenine promotes adenosine release and attenuates the intensity and frequency of epileptiform activity in hippocampal slices: Evidence for the rapid depletion of cellular <scp>ATP</scp> during electrographic seizures. Journal of Neurochemistry, 2018, 147, 178-189.	3.9	7
64	Proof of concept and feasibility studies examining the influence of combination ribose, adenine and allopurinol treatment on stroke outcome in the rat. Brain and Neuroscience Advances, 2017, 1, 239821281771711.	3.4	6
65	Putative depolarisation-induced retrograde signalling accelerates the repeated hypoxic depression of excitatory synaptic transmission in area CA1 of rat hippocampus via group I metabotropic glutamate receptors. Neuroscience, 2012, 222, 159-172.	2.3	5
66	Role for Astroglia-Derived BDNF and MSK1 in Homeostatic Synaptic Plasticity. Neuroglia (Basel,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	0.9	5
67	Psychedelics â€“ Re-opening the doors of perception. Neuropharmacology, 2018, 142, 1-6.	4.1	5
68	Glutamate receptor-dependent synaptic plasticity. Neuropharmacology, 2013, 74, 1.	4.1	4
69	Cognitive enhancers: Molecules, mechanisms and minds. Neuropharmacology, 2013, 64, 1.	4.1	3
70	Venom from Anemesia species of spider modulates high voltage-activated Ca2currents from rat cultured sensory neurones and excitatory post synaptic currents from rat hippocampal slices. Cell Calcium, 2001, 30, 212-221.	2.4	2
71	Special issue on cerebral ischemia. Neuropharmacology, 2008, 55, 249.	4.1	2
72	Ionotropic glutamate receptors: Still exciting after all these years. Neuropharmacology, 2017, 112, 1-3.	4.1	2

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73	Synedrella nodiflora Extract Depresses Excitatory Synaptic Transmission and Chemically-Induced In Vitro Seizures in the Rat Hippocampus. Frontiers in Pharmacology, 2021, 12, 610025.	3.5	2
74	A tribute to Chris Parsons. Neuropharmacology, 2021, 195, 108633.	4.1	2
75	Purinergic signalling between neurones and glia: For those about to rock. Seminars in Cell and Developmental Biology, 2011, 22, 193.	5.0	1
76	The Double-Edged Sword: Gaining Adenosine at the Expense of ATP. How to Balance the Books. , 2013, , 109-129.		1