L Felipe Barros

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5565423/publications.pdf

Version: 2024-02-01

59 papers	4,600 citations	94433 37 h-index	138484 58 g-index
63 all docs	63 docs citations	63 times ranked	5123 citing authors

#	Article	IF	Citations
1	InÂVivo Evidence for a Lactate Gradient from Astrocytes to Neurons. Cell Metabolism, 2016, 23, 94-102.	16.2	437
2	A Genetically Encoded FRET Lactate Sensor and Its Use To Detect the Warburg Effect in Single Cancer Cells. PLoS ONE, 2013, 8, e57712.	2.5	291
3	Metabolic signaling by lactate in the brain. Trends in Neurosciences, 2013, 36, 396-404.	8.6	271
4	Glutamate Triggers Rapid Glucose Transport Stimulation in Astrocytes as Evidenced by Real-Time Confocal Microscopy. Journal of Neuroscience, 2003, 23, 7337-7342.	3.6	221
5	Channel-Mediated Lactate Release by K⁺-Stimulated Astrocytes. Journal of Neuroscience, 2015, 35, 4168-4178.	3.6	163
6	Imaging Mitochondrial Flux in Single Cells with a FRET Sensor for Pyruvate. PLoS ONE, 2014, 9, e85780.	2.5	160
7	Fast and Reversible Stimulation of Astrocytic Glycolysis by K⁺and a Delayed and Persistent Effect of Glutamate. Journal of Neuroscience, 2011, 31, 4709-4713.	3.6	157
8	Apoptotic and necrotic blebs in epithelial cells display similar neck diameters but different kinase dependency. Cell Death and Differentiation, 2003, 10, 687-697.	11.2	141
9	Glucose and lactate supply to the synapse. Brain Research Reviews, 2010, 63, 149-159.	9.0	139
10	NBCe1 Mediates the Acute Stimulation of Astrocytic Glycolysis by Extracellular K⁺. Journal of Neuroscience, 2011, 31, 14264-14271.	3.6	129
11	Glutamate Mediates Acute Glucose Transport Inhibition in Hippocampal Neurons. Journal of Neuroscience, 2004, 24, 9669-9673.	3.6	128
12	The Astrocyte: Powerhouse and Recycling Center. Cold Spring Harbor Perspectives in Biology, 2015, 7, a020396.	5.5	127
13	Necrotic volume increase and the early physiology of necrosis. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2001, 130, 401-409.	1.8	120
14	High resolution measurement of the glycolytic rate. Frontiers in Neuroenergetics, 2010, 2, .	5.3	120
15	Monocarboxylate transporter 4 (MCT4) is a high affinity transporter capable of exporting lactate in high-lactate microenvironments. Journal of Biological Chemistry, 2019, 294, 20135-20147.	3.4	115
16	A quantitative overview of glucose dynamics in the gliovascular unit. Glia, 2007, 55, 1222-1237.	4.9	111
17	CrossTalk proposal: an important astrocyteâ€toâ€neuron lactate shuttle couples neuronal activity to glucose utilisation in the brain. Journal of Physiology, 2018, 596, 347-350.	2.9	97
18	Higher Transport and Metabolism of Glucose in Astrocytes Compared with Neurons: A Multiphoton Study of Hippocampal and Cerebellar Tissue Slices. Cerebral Cortex, 2014, 24, 222-231.	2.9	91

#	Article	IF	Citations
19	Arousal-induced cortical activity triggers lactate release from astrocytes. Nature Metabolism, 2020, 2, 179-191.	11.9	82
20	Non-Canonical Control of Neuronal Energy Status by the Na+ Pump. Cell Metabolism, 2019, 29, 668-680.e4.	16.2	79
21	Astrocytes regulate brain extracellular pH via a neuronal activity-dependent bicarbonate shuttle. Nature Communications, 2020, 11, 5073.	12.8	72
22	Preferential transport and metabolism of glucose in Bergmann glia over Purkinje cells: A multiphoton study of cerebellar slices. Glia, 2009, 57, 962-970.	4.9	69
23	NH4+ triggers the release of astrocytic lactate via mitochondrial pyruvate shunting. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11090-11095.	7.1	67
24	Kinetic validation of 6â€NBDG as a probe for the glucose transporter GLUT1 in astrocytes. Journal of Neurochemistry, 2009, 109, 94-100.	3.9	65
25	Sodium signaling and astrocyte energy metabolism. Glia, 2016, 64, 1667-1676.	4.9	61
26	Why glucose transport in the brain matters for PET. Trends in Neurosciences, 2005, 28, 117-119.	8.6	58
27	Tight coupling of astrocyte energy metabolism to synaptic activity revealed by genetically encoded FRET nanosensors in hippocampal tissue. Journal of Cerebral Blood Flow and Metabolism, 2019, 39, 513-523.	4.3	58
28	Nonselective cation channels as effectors of free radicalâ€"induced rat liver cell necrosis. Hepatology, 2001, 33, 114-122.	7.3	57
29	Targeting of astrocytic glucose metabolism by beta-hydroxybutyrate. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 1813-1822.	4.3	54
30	<scp>G</scp>lia in brain energy metabolism: <scp>A</scp> perspective. Glia, 2018, 66, 1134-1137.	4.9	53
31	A highly responsive pyruvate sensor reveals pathway-regulatory role of the mitochondrial pyruvate carrier MPC. ELife, 2020, 9, .	6.0	53
32	Single-cell imaging tools for brain energy metabolism: a review. Neurophotonics, 2014, 1, 011004.	3.3	52
33	Small is fast: astrocytic glucose and lactate metabolism at cellular resolution. Frontiers in Cellular Neuroscience, 2013, 7, 27.	3.7	51
34	An Enquiry into Metabolite Domains. Biophysical Journal, 2007, 92, 3878-3884.	0.5	49
35	Hyperosmotic shock induces both activation and translocation of glucose transporters in mammalian cells. Pflugers Archiv European Journal of Physiology, 2001, 442, 614-621.	2.8	48
36	Neuronal control of astrocytic respiration through a variant of the Crabtree effect. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1623-1628.	7.1	48

#	Article	IF	Citations
37	Nanomolar nitric oxide concentrations quickly and reversibly modulate astrocytic energy metabolism. Journal of Biological Chemistry, 2017, 292, 9432-9438.	3.4	45
38	Acute feedback control of astrocytic glycolysis by lactate. Glia, 2012, 60, 674-680.	4.9	40
39	Current technical approaches to brain energy metabolism. Glia, 2018, 66, 1138-1159.	4.9	40
40	Aerobic Glycolysis in the Brain: Warburg and Crabtree Contra Pasteur. Neurochemical Research, 2021, 46, 15-22.	3.3	39
41	Chaski, a novel Drosophila lactate/pyruvate transporter required in glia cells for survival under nutritional stress. Scientific Reports, 2018, 8, 1186.	3.3	38
42	Non-preferential fuelling of the Na+/K+-ATPase pump. Biochemical Journal, 2014, 460, 353-361.	3.7	36
43	Ion movements in cell death: from protection to execution. Biological Research, 2002, 35, 209-14.	3.4	29
44	Nearâ€critical GLUT1 and Neurodegeneration. Journal of Neuroscience Research, 2017, 95, 2267-2274.	2.9	28
45	Neuronal lactate levels depend on gliaâ€derived lactate during high brain activity in Drosophila. Glia, 2020, 68, 1213-1227.	4.9	24
46	How expensive is the astrocyte?. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 738-745.	4.3	24
47	Energy metabolism in childhood neurodevelopmental disorders. EBioMedicine, 2021, 69, 103474.	6.1	23
48	CO2 signaling mediates neurovascular coupling in the cerebral cortex. Nature Communications, 2022, 13, 2125.	12.8	23
49	Measurement of sugar transport in single living cells. Pflugers Archiv European Journal of Physiology, 1999, 437, 763-770.	2.8	22
50	How doth the little busy bee: unexpected metabolism. Trends in Neurosciences, 2015, 38, 1-2.	8.6	21
51	Fluid Brain Glycolysis: Limits, Speed, Location, Moonlighting, and the Fates of Glycogen and Lactate. Neurochemical Research, 2020, 45, 1328-1334.	3.3	14
52	Visualizing physiological parameters in cells and tissues using genetically encoded indicators for metabolites. Free Radical Biology and Medicine, 2022, 182, 34-58.	2.9	14
53	MitoToxy assay: A novel cell-based method for the assessment of metabolic toxicity in a multiwell plate format using a lactate FRET nanosensor, Laconic. PLoS ONE, 2019, 14, e0224527.	2.5	12
54	Bidirectional astrocytic <scp>GLUT1</scp> activation by elevated extracellular K⁺. Glia, 2021, 69, 1012-1021.	4.9	11

#	Article	IF	Citations
55	Modulation of Mammary Stromal Cell Lactate Dynamics by Ambient Glucose and Epithelial Factors. Journal of Cellular Physiology, 2017, 232, 136-144.	4.1	8
56	Functional interaction between bicarbonate transporters and carbonic anhydrase modulates lactate uptake into mouse cardiomyocytes. Pflugers Archiv European Journal of Physiology, 2015, 467, 1469-1480.	2.8	5
57	Rebuttal from L. F. Barros and B. Weber. Journal of Physiology, 2018, 596, 355-356.	2.9	3
58	Perfect energy stability in neurons. Aging, 2019, 11, 6622-6623.	3.1	1
59	Monitoring Lactate Dynamics in Individual Macrophages with a Genetically Encoded Probe. Methods in Molecular Biology, 2020, 2184, 19-30.	0.9	1