Luc Pellerin

List of Publications by Citations

190 papers	16,476 citations	61 h-index	126 g-index
203 ext. papers	18,870 ext. citations	7.2 avg, IF	6.7 L-index

#	Paper	IF	Citations
190	Glutamate uptake into astrocytes stimulates aerobic glycolysis: a mechanism coupling neuronal activity to glucose utilization. *Proceedings of the National Academy of Sciences of the United States of America*, **1994**, 91, 10625-9	11.5	2007
189	Oligodendroglia metabolically support axons and contribute to neurodegeneration. *Nature*, **2012**, 487, 443-8	50.4	997
188	Energy on demand. *Science*, **1999**, 283, 496-7	33.3	989
187	Activity-dependent regulation of energy metabolism by astrocytes: an update. *Glia*, **2007**, 55, 1251-62	9	611
186	Cellular mechanisms of brain energy metabolism and their relevance to functional brain imaging. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **1999**, 354, 1155-63	5.8	545
185	Evidence supporting the existence of an activity-dependent astrocyte-neuron lactate shuttle. *Developmental Neuroscience*, **1998**, 20, 291-9	2.2	514
184	Sweet sixteen for ANLS. *Journal of Cerebral Blood Flow and Metabolism*, **2012**, 32, 1152-66	7.3	482
183	Monocarboxylate transporters in the central nervous system: distribution, regulation and function. *Journal of Neurochemistry*, **2005**, 94, 1-14	6	435
182	The selfish brain: competition for energy resources. *Neuroscience and Biobehavioral Reviews*, **2004**, 28, 143-80	9	337
181	Reactive astrocyte nomenclature, definitions, and future directions. *Nature Neuroscience*, **2021**, 24, 312-325	25	298
180	Selective distribution of lactate dehydrogenase isoenzymes in neurons and astrocytes of human brain. *Journal of Cerebral Blood Flow and Metabolism*, **1996**, 16, 1079-89	7.3	296
179	Comparison of lactate transport in astroglial cells and monocarboxylate transporter 1 (MCT 1) expressing Xenopus laevis oocytes. Expression of two different monocarboxylate transporters in astroglial cells and neurons. *Journal of Biological Chemistry*, **1997**, 272, 30096-102	5.4	270
178	Expression of monocarboxylate transporter mRNAs in mouse brain: support for a distinct role of lactate as an energy substrate for the neonatal vs. adult brain. *Proceedings of the National Academy of Sciences of the United States of America*, **1998**, 95, 3990-5	11.5	244
177	Lactate is a preferential oxidative energy substrate over glucose for neurons in culture. *Journal of Cerebral Blood Flow and Metabolism*, **2003**, 23, 1298-306	7.3	239
176	Glial glutamate transporters mediate a functional metabolic crosstalk between neurons and astrocytes in the mouse developing cortex. *Neuron*, **2003**, 37, 275-86	13.9	232
175	Monocarboxylate transporters in the brain and in cancer. *Biochimica Et Biophysica Acta - Molecular Cell Research*, **2016**, 1863, 2481-97	4.9	196
174	Neuroenergetics: calling upon astrocytes to satisfy hungry neurons. *Neuroscientist*, **2004**, 10, 53-62	7.6	194

173	Cellular and subcellular distribution of monocarboxylate transporters in cultured brain cells and in the adult brain. *Journal of Neuroscience Research*, **2005**, 79, 55-64	4.4	191
172	Cell-specific localization of monocarboxylate transporters, MCT1 and MCT2, in the adult mouse brain revealed by double immunohistochemical labeling and confocal microscopy. *Neuroscience*, **2000**, 100, 617-27	3.9	187
171	Cellular bases of brain energy metabolism and their relevance to functional brain imaging: evidence for a prominent role of astrocytes. *Cerebral Cortex*, **1996**, 6, 50-61	5.1	187
170	Lactate as a pivotal element in neuron-glia metabolic cooperation. *Neurochemistry International*, **2003**, 43, 331-8	4.4	182
169	Increased expression of monocarboxylate transporters 1, 2, and 4 in colorectal carcinomas. *Virchows Archiv Fur Pathologische Anatomie Und Physiologie Und Fur Klinische Medizin*, **2008**, 452, 139-46	5.1	181
168	Neurotransmitters regulate energy metabolism in astrocytes: implications for the metabolic trafficking between neural cells. *Developmental Neuroscience*, **1993**, 15, 306-12	2.2	169
167	Transfer of glycogen-derived lactate from astrocytes to axons via specific monocarboxylate transporters supports mouse optic nerve activity. *Journal of Neuroscience Research*, **2005**, 81, 644-52	4.4	165
166	Glutamate uptake stimulates Na+,K+-ATPase activity in astrocytes via activation of a distinct subunit highly sensitive to ouabain. *Journal of Neurochemistry*, **1997**, 69, 2132-7	6	162
165	GABA uptake into astrocytes is not associated with significant metabolic cost: implications for brain imaging of inhibitory transmission. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 12456-61	11.5	153
164	MCT2 is a major neuronal monocarboxylate transporter in the adult mouse brain. *Journal of Cerebral Blood Flow and Metabolism*, **2002**, 22, 586-95	7.3	151
163	Competition between glucose and lactate as oxidative energy substrates in both neurons and astrocytes: a comparative NMR study. *European Journal of Neuroscience*, **2006**, 24, 1687-94	3.5	150
162	Food for thought: challenging the dogmas. *Journal of Cerebral Blood Flow and Metabolism*, **2003**, 23, 1282-6	7.3	149
161	[F]FDG PET signal is driven by astroglial glutamate transport. *Nature Neuroscience*, **2017**, 20, 393-395	25.5	144
160	Brain lactate kinetics: Modeling evidence for neuronal lactate uptake upon activation. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 16448-53	11.5	144
159	Similar perisynaptic glial localization for the Na+,K+-ATPase alpha 2 subunit and the glutamate transporters GLAST and GLT-1 in the rat somatosensory cortex. *Cerebral Cortex*, **2002**, 12, 515-25	5.1	144
158	Cellular mechanisms of brain energy metabolism. Relevance to functional brain imaging and to neurodegenerative disorders. *Annals of the New York Academy of Sciences*, **1996**, 777, 380-7	6.5	118
157	Cell-specific expression pattern of monocarboxylate transporters in astrocytes and neurons observed in different mouse brain cortical cell cultures. *Journal of Neuroscience Research*, **2003**, 73, 141-55	4.4	108
156	Astrocyte Biomarkers in Alzheimer's Disease. *Trends in Molecular Medicine*, **2019**, 25, 77-95	11.5	108

155	Unraveling the complex metabolic nature of astrocytes. *Frontiers in Cellular Neuroscience*, **2013**, 7, 179	6.1	100
154	Excitatory amino acids stimulate aerobic glycolysis in astrocytes via an activation of the Na+/K+ ATPase. *Developmental Neuroscience*, **1996**, 18, 336-42	2.2	100
153	Does glutamate image your thoughts?. *Trends in Neurosciences*, **2002**, 25, 359-64	13.3	99
152	How astrocytes feed hungry neurons. *Molecular Neurobiology*, **2005**, 32, 59-72	6.2	97
151	Activation of astrocytes by CNTF induces metabolic plasticity and increases resistance to metabolic insults. *Journal of Neuroscience*, **2007**, 27, 7094-104	6.6	90
150	Selective postsynaptic co-localization of MCT2 with AMPA receptor GluR2/3 subunits at excitatory synapses exhibiting AMPA receptor trafficking. *Cerebral Cortex*, **2005**, 15, 361-70	5.1	88
149	Astrocytes Couple Synaptic Activity to Glucose Utilization in the Brain. *Physiology*, **1999**, 14, 177-182	9.8	88
148	Neuroscience. Let there be (NADH) light. *Science*, **2004**, 305, 50-2	33.3	86
147	Modulation of the glutamate-evoked release of arachidonic acid from mouse cortical neurons: involvement of a pH-sensitive membrane phospholipase A2. *Journal of Neuroscience*, **1995**, 15, 3307-17	6.6	79
146	Alzheimer's disease: the amyloid hypothesis and the Inverse Warburg effect. *Frontiers in Physiology*, **2014**, 5, 522	4.6	78
145	Endothelial Lactate Controls Muscle Regeneration from Ischemia by Inducing M2-like Macrophage Polarization. *Cell Metabolism*, **2020**, 31, 1136-1153.e7	24.6	76
144	Endothelial cell-derived nitric oxide enhances aerobic glycolysis in astrocytes via HIF-1–mediated target gene activation. *Journal of Neuroscience*, **2012**, 32, 9727-35	6.6	75
143	Local injection of antisense oligonucleotides targeted to the glial glutamate transporter GLAST decreases the metabolic response to somatosensory activation. *Journal of Cerebral Blood Flow and Metabolism*, **2001**, 21, 404-12	7.3	75
142	Causes of obesity: looking beyond the hypothalamus. *Progress in Neurobiology*, **2007**, 81, 61-88	10.9	72
141	A coherent neurobiological framework for functional neuroimaging provided by a model integrating compartmentalized energy metabolism. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 4188-93	11.5	71
140	The Self-Inactivating KamiCas9 System for the Editing of CNS Disease Genes. *Cell Reports*, **2017**, 20, 2980-2991	8.29	68
139	Feeding active neurons: (re)emergence of a nursing role for astrocytes. *Journal of Physiology (Paris)*, **2002**, 96, 273-82		67
138	Glucose metabolism links astroglial mitochondria to cannabinoid effects. *Nature*, **2020**, 583, 603-608	50.4	66

137	Cellular distribution of glucose and monocarboxylate transporters in human brain white matter and multiple sclerosis lesions. *Glia*, **2014**, 62, 1125-41	9	65
136	Enhanced cerebral expression of MCT1 and MCT2 in a rat ischemia model occurs in activated microglial cells. *Journal of Cerebral Blood Flow and Metabolism*, **2009**, 29, 1273-83	7.3	65
135	Release of arachidonic acid by NMDA-receptor activation in the rat hippocampus. *Neurochemical Research*, **1991**, 16, 983-9	4.6	65
134	Comment on recent modeling studies of astrocyte-neuron metabolic interactions. *Journal of Cerebral Blood Flow and Metabolism*, **2010**, 30, 1982-6	7.3	63
133	Brain energetics (thought needs food). *Current Opinion in Clinical Nutrition and Metabolic Care*, **2008** , 11, 701-5	3.8	62
132	Glucocorticoids modulate neurotransmitter-induced glycogen metabolism in cultured cortical astrocytes. *Journal of Neurochemistry*, **2004**, 88, 900-8	6	62
131	How to balance the brain energy budget while spending glucose differently. *Journal of Physiology*, **2003**, 546, 325	3.9	62
130	Protein targeting to glycogen mRNA expression is stimulated by noradrenaline in mouse cortical astrocytes **2000**, 30, 382-391		62
129	Differential messenger RNA distribution of lactate dehydrogenase LDH-1 and LDH-5 isoforms in the rat brain. *Neuroscience*, **2000**, 96, 619-25	3.9	60
128	A probable dual mode of action for both L- and D-lactate neuroprotection in cerebral ischemia. *Journal of Cerebral Blood Flow and Metabolism*, **2015**, 35, 1561-9	7.3	58
127	Regulation of energy metabolism by neurotransmitters in astrocytes in primary culture and in an immortalized cell line. *Glia*, **1997**, 21, 74-83	9	58
126	Food for thought: the importance of glucose and other energy substrates for sustaining brain function under varying levels of activity. *Diabetes and Metabolism*, **2010**, 36 Suppl 3, S59-63	5.4	55
125	Enhanced expression of three monocarboxylate transporter isoforms in the brain of obese mice. *Journal of Physiology*, **2007**, 583, 469-86	3.9	55
124	Long-term changes of synaptic transmission induced by arachidonic acid in the CA1 subfield of the rat hippocampus. *Neuroscience Letters*, **1990**, 115, 286-92	3.3	54
123	The anorexigenic effects of metformin involve increases in hypothalamic leptin receptor expression. *Metabolism: Clinical and Experimental*, **2011**, 60, 327-34	12.7	53
122	Quantitative rt-PCR analysis of uncoupling protein isoforms in mouse brain cortex: methodological optimization and comparison of expression with brown adipose tissue and skeletal muscle. *Journal of Cerebral Blood Flow and Metabolism*, **2004**, 24, 780-8	7.3	53
121	Oxygen tension controls the expression of the monocarboxylate transporter MCT4 in cultured mouse cortical astrocytes via a hypoxia-inducible factor-1Ɛmediated transcriptional regulation. *Glia*, **2014**, 62, 477-90	9	52
120	Deficiency in monocarboxylate transporter 1 (MCT1) in mice delays regeneration of peripheral nerves following sciatic nerve crush. *Experimental Neurology*, **2015**, 263, 325-38	5.7	51

119	Improvement of Neuroenergetics by Hypertonic Lactate Therapy in Patients with Traumatic Brain Injury Is Dependent on Baseline Cerebral Lactate/Pyruvate Ratio. *Journal of Neurotrauma*, **2016**, 33, 681-7	5.4	51
118	The contribution of astrocytes to the 18F-2-deoxyglucose signal in PET activation studies. *Molecular Psychiatry*, **1996**, 1, 445-52	15.1	51
117	Expression of the monocarboxylate transporter MCT1 in the adult human brain cortex. *Brain Research*, **2006**, 1070, 65-70	3.7	49
116	A2B receptor activation promotes glycogen synthesis in astrocytes through modulation of gene expression. *American Journal of Physiology - Cell Physiology*, **2003**, 284, C696-704	5.4	49
115	Noradrenaline enhances monocarboxylate transporter 2 expression in cultured mouse cortical neurons via a translational regulation. *Journal of Neurochemistry*, **2003**, 86, 1468-76	6	49
114	Metabolic coupling during activation. A cellular view. *Advances in Experimental Medicine and Biology* , **1997**, 413, 161-6	3.6	49
113	beta-Adrenergic stimulation promotes homocysteic acid release from astrocyte cultures: evidence for a role of astrocytes in the modulation of synaptic transmission. *Journal of Neurochemistry*, **1997**, 68, 2386-94	6	48
112	Distribution of monocarboxylate transporters in the peripheral nervous system suggests putative roles in lactate shuttling and myelination. *Journal of Neuroscience*, **2015**, 35, 4151-6	6.6	47
111	Brain-derived neurotrophic factor enhances the expression of the monocarboxylate transporter 2 through translational activation in mouse cultured cortical neurons. *Journal of Cerebral Blood Flow and Metabolism*, **2010**, 30, 286-98	7.3	46
110	Dual-gene, dual-cell type therapy against an excitotoxic insult by bolstering neuroenergetics. *Journal of Neuroscience*, **2004**, 24, 6202-8	6.6	46
109	Early acquisition of typical metabolic features upon differentiation of mouse neural stem cells into astrocytes. *Glia*, **2004**, 46, 8-17	9	46
108	Resistance to diet-induced obesity and associated metabolic perturbations in haploinsufficient monocarboxylate transporter 1 mice. *PLoS ONE*, **2013**, 8, e82505	3.7	45
107	Caveolin expression changes in the neurovascular unit after juvenile traumatic brain injury: signs of blood-brain barrier healing?. *Neuroscience*, **2015**, 285, 215-26	3.9	44
106	Brain energy consumption induced by electrical stimulation promotes systemic glucose uptake. *Biological Psychiatry*, **2011**, 70, 690-5	7.9	44
105	Noradrenaline enhances the expression of the neuronal monocarboxylate transporter MCT2 by translational activation via stimulation of PI3K/Akt and the mTOR/S6K pathway. *Journal of Neurochemistry*, **2007**, 102, 389-97	6	43
104	Insulin and IGF-1 enhance the expression of the neuronal monocarboxylate transporter MCT2 by translational activation via stimulation of the phosphoinositide 3-kinase-Akt-mammalian target of rapamycin pathway. *European Journal of Neuroscience*, **2008**, 27, 53-65	3.5	42
103	Metabolic compartmentalization in the human cortex and hippocampus: evidence for a cell- and region-specific localization of lactate dehydrogenase 5 and pyruvate dehydrogenase. *BMC Neuroscience*, **2007**, 8, 35	3.2	42
102	Developmental and hormonal regulation of the monocarboxylate transporter 2 (MCT2) expression in the mouse germ cells. *Biology of Reproduction*, **2003**, 69, 1069-78	3.9	42

101	Stimulation-induced increases of astrocytic oxidative metabolism in rats and humans investigated with 1-11C-acetate. *Journal of Cerebral Blood Flow and Metabolism*, **2009**, 29, 44-56	7.3	41
100	Unusual astrocyte reactivity caused by the food mycotoxin ochratoxin A in aggregating rat brain cell cultures. *Neuroscience*, **2005**, 134, 771-82	3.9	40
99	Brain-derived neurotrophic factor enhances the hippocampal expression of key postsynaptic proteins in vivo including the monocarboxylate transporter MCT2. *Neuroscience*, **2011**, 192, 155-63	3.9	39
98	Adenosine triphosphate and arachidonic acid stimulate glycogenolysis in primary cultures of mouse cerebral cortical astrocytes. *Neuroscience Letters*, **1995**, 188, 109-12	3.3	39
97	Perinatal and early postnatal changes in the expression of monocarboxylate transporters MCT1 and MCT2 in the rat forebrain. *Journal of Comparative Neurology*, **2003**, 465, 445-54	3.4	36
96	Trans-inhibition of glutamate transport prevents excitatory amino acid-induced glycolysis in astrocytes. *Brain Research*, **1999**, 850, 39-46	3.7	35
95	Tanycytes Regulate Lipid Homeostasis by Sensing Free Fatty Acids and Signaling to Key Hypothalamic Neuronal Populations via FGF21 Secretion. *Cell Metabolism*, **2019**, 30, 833-844.e7	24.6	31
94	A neuronal MCT2 knockdown in the rat somatosensory cortex reduces both the NMR lactate signal and the BOLD response during whisker stimulation. *PLoS ONE*, **2017**, 12, e0174990	3.7	31
93	Effects of sodium arsenite on neurite outgrowth and glutamate AMPA receptor expression in mouse cortical neurons. *NeuroToxicology*, **2013**, 37, 197-206	4.4	30
92	Evidence for hypothalamic ketone body sensing: impact on food intake and peripheral metabolic responses in mice. *American Journal of Physiology - Endocrinology and Metabolism*, **2016**, 310, E103-15	6	29
91	Cell-specific modulation of monocarboxylate transporter expression contributes to the metabolic reprograming taking place following cerebral ischemia. *Neuroscience*, **2016**, 317, 108-20	3.9	29
90	Monocarboxylate transporters: new players in body weight regulation. *Obesity Reviews*, **2015**, 16 Suppl 1, 55-66	10.6	29
89	Linking supply to demand: the neuronal monocarboxylate transporter MCT2 and the alpha-amino-3-hydroxyl-5-methyl-4-isoxazole-propionic acid receptor GluR2/3 subunit are associated in a common trafficking process. *European Journal of Neuroscience*, **2009**, 29, 1951-63	3.5	29
88	Differential energetic response of brain vs. skeletal muscle upon glycemic variations in healthy humans. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2008**, 294, R12-6	3.2	29
87	Cell-Type-Specific Gene Expression Profiling in Adult Mouse Brain Reveals Normal and Disease-State Signatures. *Cell Reports*, **2019**, 26, 2477-2493.e9	10.6	29
86	Long-Lasting Metabolic Imbalance Related to Obesity Alters Olfactory Tissue Homeostasis and Impairs Olfactory-Driven Behaviors. *Chemical Senses*, **2015**, 40, 537-56	4.8	27
85	Long-term modulation of glucose utilization by IL-1 alpha and TNF-alpha in astrocytes: Na+ pump activity as a potential target via distinct signaling mechanisms. *Glia*, **2002**, 39, 10-8	9	25
84	Arachidonic acid metabolites in the rat and human brain. New findings on the metabolism of prostaglandin D2 and lipoxygenase products. *Annals of the New York Academy of Sciences*, **1989**, 559, 74-83	6.5	24

83	Astrocytes are key but indirect contributors to the development of the symptomatology and pathophysiology of Huntington's disease. *Glia*, **2016**, 64, 1841-56	9	23
82	Glycogen metabolism as a marker of astrocyte differentiation. *Journal of Cerebral Blood Flow and Metabolism*, **2010**, 30, 51-5	7.3	23
81	Brain energy metabolism in Alzheimer's disease: 99mTc-HMPAO SPECT imaging during verbal fluency and role of astrocytes in the cellular mechanism of 99mTc-HMPAO retention. *Brain Research Reviews*, **2001**, 36, 230-40		23
80	Astrocyte Biomarkers in Alzheimer Disease: A Systematic Review and Meta-analysis. *Neurology*, **2021**,	6.5	23
79	Neuroenergetic Response to Prolonged Cerebral Glucose Depletion after Severe Brain Injury and the Role of Lactate. *Journal of Neurotrauma*, **2015**, 32, 1560-6	5.4	22
78	Current technical approaches to brain energy metabolism. *Glia*, **2018**, 66, 1138-1159	9	22
77	Nitric oxide induces the expression of the monocarboxylate transporter MCT4 in cultured astrocytes by a cGMP-independent transcriptional activation. *Glia*, **2011**, 59, 1987-95	9	21
76	A novel method for in vitro production of human glial-like cells from neurosurgical resection tissue. *Laboratory Investigation*, **2002**, 82, 809-12	5.9	21
75	Arachidonic acid augments potassium currents in rat neocortical neurones. *NeuroReport*, **1993**, 4, 359-62	1.7	21
74	Protein targeting to glycogen mRNA expression is stimulated by noradrenaline in mouse cortical astrocytes. *Glia*, **2000**, 30, 382-91	9	21
73	-Hydroxybutyrate supports synaptic vesicle cycling but reduces endocytosis and exocytosis in rat brain synaptosomes. *Neurochemistry International*, **2016**, 93, 73-81	4.4	20
72	Distribution of the monocarboxylate transporter MCT2 in human cerebral cortex: an immunohistochemical study. *Brain Research*, **2008**, 1226, 61-9	3.7	20
71	Metabolic activation pattern of distinct hippocampal subregions during spatial learning and memory retrieval. *Journal of Cerebral Blood Flow and Metabolism*, **2006**, 26, 468-77	7.3	20
70	Astrocytes as a predominant cellular site of (99m)Tc-HMPAO retention. *Journal of Cerebral Blood Flow and Metabolism*, **2001**, 21, 456-68	7.3	20
69	Rise in plasma lactate concentrations with psychosocial stress: a possible sign of cerebral energy demand. *Obesity Facts*, **2012**, 5, 384-92	5.1	19
68	Focal cerebral ischaemia induces a decrease in activity and a shift in ouabain affinity of Na+, K+-ATPase isoforms without modifications in mRNA and protein expression. *Brain Research*, **1999**, 819, 132-42	3.7	19
67	Alteration of glucose metabolism in cultured astrocytes after AQP9-small interference RNA application. *Brain Research*, **2012**, 1473, 19-24	3.7	18
66	Cryopreservation of human brain tissue allowing timely production of viable adult human brain cells for autologous transplantation. *Cryobiology*, **2003**, 47, 179-83	2.7	18

65	Ampakine CX546 bolsters energetic response of astrocytes: a novel target for cognitive-enhancing drugs acting as alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor modulators. *Journal of Neurochemistry*, **2005**, 92, 668-77	6	18
64	Neuroprotective role of lactate in rat neonatal hypoxia-ischemia. *Journal of Cerebral Blood Flow and Metabolism*, **2021**, 41, 342-358	7.3	18
63	Mechanism of succinate efflux upon reperfusion of the ischaemic heart. *Cardiovascular Research*, **2021**, 117, 1188-1201	9.9	18
62	AMPK activation caused by reduced liver lactate metabolism protects against hepatic steatosis in MCT1 haploinsufficient mice. *Molecular Metabolism*, **2017**, 6, 1625-1633	8.8	17
61	Temporal changes in mRNA expression of the brain nutrient transporters in the lithium-pilocarpine model of epilepsy in the immature and adult rat. *Neurobiology of Disease*, **2011**, 43, 588-97	7.5	17
60	Basal and stimulated lactate fluxes in primary cultures of astrocytes are differentially controlled by distinct proteins. *Journal of Neurochemistry*, **2008**, 107, 789-98	6	17
59	The astrocyte-mediated coupling between synaptic activity and energy metabolism operates through volume transmission. *Progress in Brain Research*, **2000**, 125, 229-40	2.9	17
58	Deep hypothermia and rewarming alters glutamate levels and glycogen content in cultured astrocytes. *Anesthesiology*, **1999**, 91, 1763-9	4.3	17
57	Role of MCT1 and CAII in skeletal muscle pH homeostasis, energetics, and function: insights from MCT1 haploinsufficient mice. *FASEB Journal*, **2017**, 31, 2562-2575	0.9	16
56	Regulation of astrocyte energy metabolism by neurotransmitters. *Kidney and Blood Pressure Research*, **1994**, 17, 168-71	3.1	16
55	Hypothalamic sensing of ketone bodies after prolonged cerebral exposure leads to metabolic control dysregulation. *Scientific Reports*, **2016**, 6, 34909	4.9	15
54	Metabolism of prostaglandin D2 by human cerebral cortex into 9 alpha, 11 beta-prostaglandin F2 by an active NADPH-dependent 11-ketoreductase. *Journal of Neurochemistry*, **1989**, 53, 64-70	6	15
53	Regulation of the intracellular distribution, cell surface expression, and protein levels of AMPA receptor GluR2 subunits by the monocarboxylate transporter MCT2 in neuronal cells. *Journal of Neurochemistry*, **2009**, 109, 1767-78	6	14
52	Determinants of brain cell metabolic phenotypes and energy substrate utilization unraveled with a modeling approach. *PLoS Computational Biology*, **2012**, 8, e1002686	5	14
51	Making sense of AMPA receptor trafficking by modeling molecular mechanisms of synaptic plasticity. *Brain Research*, **2008**, 1207, 60-72	3.7	14
50	Immunocytochemical expression of monocarboxylate transporters in the human visual cortex at midgestation. *Developmental Brain Research*, **2004**, 148, 69-76		13
49	Effects of bisphenol S, a major substitute of bisphenol A, on neurobehavioral responses and cerebral monocarboxylate transporters expression in mice. *Food and Chemical Toxicology*, **2019**, 132, 110670	4.7	12
48	Neuronal and astroglial monocarboxylate transporters play key but distinct roles in hippocampus-dependent learning and memory formation. *Progress in Neurobiology*, **2020**, 194, 101888	10.9	12

47	Disrupted function of lactate transporter MCT1, but not MCT4, in Schwann cells affects the maintenance of motor end-plate innervation. *Glia*, **2021**, 69, 124-136	9	12
46	Cortical Bilateral Adaptations in Rats Submitted to Focal Cerebral Ischemia: Emphasis on Glial Metabolism. *Molecular Neurobiology*, **2018**, 55, 2025-2041	6.2	11
45	E4F1-mediated control of pyruvate dehydrogenase activity is essential for skin homeostasis. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 11004-9	11.5	11
44	Peculiar protrusions along tanycyte processes face diverse neural and nonneural cell types in the hypothalamic parenchyma. *Journal of Comparative Neurology*, **2021**, 529, 553-575	3.4	11
43	Regulation by neurotransmitters of glial energy metabolism. *Advances in Experimental Medicine and Biology*, **1997**, 429, 137-43	3.6	11
42	Development of Efficient AAV2/DJ-Based Viral Vectors to Selectively Downregulate the Expression of Neuronal or Astrocytic Target Proteins in the Rat Central Nervous System. *Frontiers in Molecular Neuroscience*, **2019**, 12, 201	6.1	9
41	Maternal consumption of piceatannol: A nutritional neuroprotective strategy against hypoxia-ischemia in rat neonates. *Brain Research*, **2019**, 1717, 86-94	3.7	9
40	Reducing monocarboxylate transporter MCT1 worsens experimental diabetic peripheral neuropathy. *Experimental Neurology*, **2020**, 333, 113415	5.7	9
39	Lactate fluxes mediated by the monocarboxylate transporter-1 are key determinants of the metabolic activity of beige adipocytes. *Journal of Biological Chemistry*, **2021**, 296, 100137	5.4	9
38	Neuroenergetics: Astrocytes Have a Sweet Spot for Glucose. *Current Biology*, **2018**, 28, R1258-R1260	6.3	9
37	Maternal alcoholism and neonatal hypoxia-ischemia: Neuroprotection by stilbenoid polyphenols. *Brain Research*, **2020**, 1738, 146798	3.7	7
36	Empiricism and rationalism: two paths toward the same goal. *Journal of Cerebral Blood Flow and Metabolism*, **2004**, 24, 1240-1	7.3	7
35	Neuroprotective effect of rLosac on supplement-deprived mouse cultured cortical neurons involves maintenance of monocarboxylate transporter MCT2 protein levels. *Journal of Neurochemistry*, **2019**, 148, 80-96	6	7
34	Hyperpalatable Diet and Physical Exercise Modulate the Expression of the Glial Monocarboxylate Transporters MCT1 and 4. *Molecular Neurobiology*, **2017**, 54, 5807-5814	6.2	6
33	Glutamate reduces glucose utilization while concomitantly enhancing AQP9 and MCT2 expression in cultured rat hippocampal neurons. *Frontiers in Neuroscience*, **2014**, 8, 246	5.1	6
32	Insights into neuronal cell metabolism using NMR spectroscopy: uridyl diphosphate N-acetyl-glucosamine as a unique metabolic marker. *Angewandte Chemie - International Edition*, **2011**, 50, 11672-4	16.4	6
31	Formation of 12-lipoxygenase metabolites in rat cerebral cortical slices: stimulation by calcium ionophore, glutamate and N-methyl-D-aspartate. *Journal of Neural Transmission Supplementum*, **1990**, 29, 29-37		6
30	Inhibition of eIF5A hypusination reprogrammes metabolism and glucose handling in mouse kidney. *Cell Death and Disease*, **2021**, 12, 283	9.8	6

29	Cerebral Ketone Body Oxidation Is Facilitated by a High Fat Diet Enriched with Advanced Glycation End Products in Normal and Diabetic Rats. *Frontiers in Neuroscience*, **2016**, 10, 509	5.1	4
28	Impact of MCT1 Haploinsufficiency on the Mouse Retina. *Advances in Experimental Medicine and Biology*, **2018**, 1074, 375-380	3.6	3
27	Monocarboxylate Transporters **2009**, 961-965		3
26	Low plasma lactate concentration as a biomarker of an incompetent brain-pull: a risk factor for weight gain in type 2 diabetes patients. *Psychoneuroendocrinology*, **2010**, 35, 1287-93	5	3
25	Urinary ketone body loss leads to degeneration of brain white matter in elderly SLC5A8-deficient mice. *Journal of Cerebral Blood Flow and Metabolism*, **2020**, 40, 1709-1723	7.3	3
24	Nutritional Impact on Metabolic Homeostasis and Brain Health.. *Frontiers in Neuroscience*, **2021**, 15, 767405	5.1	2
23	Clozapine induces astrocyte-dependent FDG-PET hypometabolism.. *European Journal of Nuclear Medicine and Molecular Imaging*, **2022**, 1	8.8	2
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