

An Energy Budget for Signaling in the Grey Matter of th

Journal of Cerebral Blood Flow and Metabolism

21, 1133-1145

DOI: [10.1097/00004647-2001110000-00001](https://doi.org/10.1097/00004647-2001110000-00001)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Functional brain imaging of acute pain in healthy humans. , 0, , 329-422.		0
3	Energy-Efficient Coding with Discrete Stochastic Events. Neural Computation, 2002, 14, 1323-1346.	1.3	67
4	Development of 17O NMR approach for fast imaging of cerebral metabolic rate of oxygen in rat brain at high field. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 13194-13199.	3.3	131
5	Total neuroenergetics support localized brain activity: Implications for the interpretation of fMRI. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10771-10776.	3.3	190
6	How reliable is the connectivity in cortical neural networks?. , 0, , .		5
7	PET Study of D1Dopamine Receptor Binding in Neuroleptic-Naive Patients With Schizophrenia. American Journal of Psychiatry, 2002, 159, 761-767.	4.0	171
8	Cerebral energetics and spiking frequency: The neurophysiological basis of fMRI. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10765-10770.	3.3	322
9	Appraising the brain's energy budget. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10237-10239.	3.3	598
10	Biophysical basis of brain activity: implications for neuroimaging. Quarterly Reviews of Biophysics, 2002, 35, 287-325.	2.4	72
11	A test of metabolically efficient coding in the retina. Network: Computation in Neural Systems, 2002, 13, 531-552.	2.2	51
12	What does fMRI tell us about neuronal activity?. Nature Reviews Neuroscience, 2002, 3, 142-151.	4.9	833
13	Imaging techniques. NeuroImage, 2002, 16, 37-258.	2.1	24
14	The neural basis of the bloodâ€œoxygenâ€œlevelâ€œdependent functional magnetic resonance imaging signal. Philosophical Transactions of the Royal Society B: Biological Sciences, 2002, 357, 1003-1037.	1.8	786
15	A Model of the Coupling between Brain Electrical Activity, Metabolism, and Hemodynamics: Application to the Interpretation of Functional Neuroimaging. NeuroImage, 2002, 17, 1162-1181.	2.1	158
16	Sustained Negative BOLD, Blood Flow and Oxygen Consumption Response and Its Coupling to the Positive Response in the Human Brain. Neuron, 2002, 36, 1195-1210.	3.8	565
17	Multiple Mechanisms for Contrast Adaptation in the Retina. Neuron, 2002, 36, 781-783.	3.8	32
18	Does glutamate image your thoughts?. Trends in Neurosciences, 2002, 25, 359-364.	4.2	109
19	The neural basis of functional brain imaging signals. Trends in Neurosciences, 2002, 25, 621-625.	4.2	793

#	ARTICLE	IF	CITATIONS
20	Energy metabolism in the brain. <i>International Review of Neurobiology</i> , 2002, 51, 1-IN4.	0.9	122
21	Energy-Efficient Neuronal Computation via Quantal Synaptic Failures. <i>Journal of Neuroscience</i> , 2002, 22, 4746-4755.	1.7	201
22	Insights into new techniques for high resolution functional MRI. <i>Current Opinion in Neurobiology</i> , 2002, 12, 607-615.	2.0	61
23	Glutamate-glutamine Cycling in the Epileptic Human Hippocampus. <i>Epilepsia</i> , 2002, 43, 703-710.	2.6	178
24	Generalized Sensory Stimulation of Conscious Rats Increases Labeling of Oxidative Pathways of Glucose Metabolism When the Brain Glucose/Oxygen Uptake Ratio Rises. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2002, 22, 1490-1502.	2.4	106
25	Effect of Deep Pentobarbital Anesthesia on Neurotransmitter Metabolism <i>in Vivo</i> : On the Correlation of Total Glucose Consumption with Glutamatergic Action. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2002, 22, 1343-1351.	2.4	122
26	Emerging rules for the distributions of active dendritic conductances. <i>Nature Reviews Neuroscience</i> , 2002, 3, 362-370.	4.9	291
27	N-acetylaspartate in the vertebrate brain: metabolism and function. <i>Neurochemical Research</i> , 2003, 28, 941-953.	1.6	353
28	How Does Connectivity Between Cortical Areas Depend on Brain Size? Implications for Efficient Computation. <i>Journal of Computational Neuroscience</i> , 2003, 15, 347-356.	0.6	42
29	Coupling of Glutamatergic Neurotransmission and Neuronal Glucose Oxidation over the Entire Range of Cerebral Cortex Activity. <i>Annals of the New York Academy of Sciences</i> , 2003, 1003, 452-453.	1.8	10
30	Reduced glutamate neurotransmission in patients with Alzheimer's disease?an in vivo ¹³ C magnetic resonance spectroscopy study. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2003, 16, 29-42.	1.1	107
31	Energy efficiency in a channel model for the spiking axon. <i>Neurocomputing</i> , 2003, 52-54, 39-44.	3.5	15
32	The Cost of Cortical Computation. <i>Current Biology</i> , 2003, 13, 493-497.	1.8	844
33	MR imaging in the non-human primate: studies of function and of dynamic connectivity. <i>Current Opinion in Neurobiology</i> , 2003, 13, 630-642.	2.0	90
34	Mitochondria are redistributed in <i>Drosophila</i> photoreceptors lacking Milton, a kinesin-associated protein. <i>Journal of Comparative Neurology</i> , 2003, 463, 372-388.	0.9	70
35	Magnetic resonance spectroscopy of neurotransmitters in human brain. <i>Annals of Neurology</i> , 2003, 54, S25-S31.	2.8	126
36	Localized <i>in vivo</i> ¹³ C NMR spectroscopy of the brain. <i>NMR in Biomedicine</i> , 2003, 16, 313-338.	1.6	150
37	<i>In vivo</i> ¹ H-[¹³ C]-NMR spectroscopy of cerebral metabolism. <i>NMR in Biomedicine</i> , 2003, 16, 339-357.	1.6	134

#	ARTICLE	IF	CITATIONS
38	Regulation of glial metabolism studied by ¹³ C-NMR. <i>NMR in Biomedicine</i> , 2003, 16, 370-399.	1.6	109
39	The physiology and metabolism of neuronal activation: in vivo studies by NMR and other methods. <i>Magnetic Resonance Imaging</i> , 2003, 21, 1283-1293.	1.0	34
40	Quantitative online monitoring of hippocampus glucose and lactate metabolism in organotypic cultures using biosensor technology. <i>Journal of Neurochemistry</i> , 2003, 85, 399-408.	2.1	37
41	Potassium channel gene therapy can prevent neuron death resulting from necrotic and apoptotic insults. <i>Journal of Neurochemistry</i> , 2003, 86, 1079-1088.	2.1	37
42	Lactate and glucose as energy substrates during, and after, oxygen deprivation in rat hippocampal acute and cultured slices. <i>Journal of Neurochemistry</i> , 2003, 87, 1381-1390.	2.1	74
43	Evidence for a Lactate Pool in the Rat Brain That is Not Used as an Energy Supply under Normoglycemic Conditions. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2003, 23, 933-941.	2.4	29
44	Biphasic Changes in Tissue Partial Pressure of Oxygen Closely Related to Localized Neural Activity in Guinea Pig Auditory Cortex. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2003, 23, 1075-1084.	2.4	35
45	Uptake of locally applied deoxyglucose, glucose and lactate by axons and schwann cells of rat vagus nerve. <i>Journal of Physiology</i> , 2003, 546, 551-564.	1.3	84
46	How to balance the brain energy budget while spending glucose differently. <i>Journal of Physiology</i> , 2003, 546, 325-325.	1.3	69
47	Modal gating of NMDA receptors and the shape of their synaptic response. <i>Nature Neuroscience</i> , 2003, 6, 476-483.	7.1	162
48	Functional imaging of the visual pathways. <i>Neurologic Clinics</i> , 2003, 21, 417-443.	0.8	29
49	Cortical neurophysiology of anticipatory anxiety: an investigation utilizing steady state probe topography (SSPT). <i>NeuroImage</i> , 2003, 20, 975-986.	2.1	67
50	Communication in Neuronal Networks. <i>Science</i> , 2003, 301, 1870-1874.	6.0	842
51	On the Choice of a Sparse Prior. <i>Reviews in the Neurosciences</i> , 2003, 14, 53-62.	1.4	8
52	Coding of the contrasts in natural images by populations of neurons in primary visual cortex (V1). <i>Vision Research</i> , 2003, 43, 1983-2001.	0.7	49
53	Synaptic energy efficiency in retinal processing. <i>Vision Research</i> , 2003, 43, 1285-1292.	0.7	34
54	Neighborly interactions of metabolically-activated astrocytes in vivo. <i>Neurochemistry International</i> , 2003, 43, 339-354.	1.9	84
55	Less Means More. <i>Neuron</i> , 2003, 40, 449-451.	3.8	5

#	ARTICLE	IF	CITATIONS
56	Cerebral metabolism and consciousness. <i>Comptes Rendus - Biologies</i> , 2003, 326, 253-273.	0.1	49
57	Prefrontal DA Transmission at D1 Receptors and the Pathology of Schizophrenia. <i>Neuroscientist</i> , 2003, 9, 404-416.	2.6	243
58	In vivo NMR Studies of the Glutamate Neurotransmitter Flux and Neuroenergetics: Implications for Brain Function. <i>Annual Review of Physiology</i> , 2003, 65, 401-427.	5.6	310
59	Progress in understanding functional imaging signals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 3550-3552.	3.3	13
60	Two-photon imaging of capillary blood flow in olfactory bulb glomeruli. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 13081-13086.	3.3	291
61	Shaker K ⁺ channels are predicted to reduce the metabolic cost of neural information in <i>Drosophila</i> photoreceptors. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2003, 270, S58-61.	1.2	35
62	The single capillary and the active brain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 12535-12536.	3.3	7
63	Measurement of unidirectional Pi to ATP flux in human visual cortex at 7 T by using in vivo ³¹ P magnetic resonance spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 14409-14414.	3.3	98
64	Dopamine Depletion and In Vivo Binding of PET D1 Receptor Radioligands: Implications for Imaging Studies in Schizophrenia. <i>Neuropsychopharmacology</i> , 2003, 28, 1703-1711.	2.8	83
65	Four facets of a single brain: behaviour, cerebral blood flow/metabolism, neuronal activity and neurotransmitter dynamics. <i>NeuroReport</i> , 2003, 14, 1097-1106.	0.6	20
66	Principles of the measurement of neuro-glial metabolism using in vivo ¹³ C NMR spectroscopy. <i>Advances in Molecular and Cell Biology</i> , 2003, , 409-433.	0.1	8
67	Brain-Derived Neurotrophic Factor Stimulates Energy Metabolism in Developing Cortical Neurons. <i>Journal of Neuroscience</i> , 2003, 23, 8212-8220.	1.7	120
69	Perinatal Iron Deficiency Alters the Neurochemical Profile of the Developing Rat Hippocampus. <i>Journal of Nutrition</i> , 2003, 133, 3215-3221.	1.3	205
70	How Retinal Ganglion Cells Prevent Synaptic Noise From Reaching the Spike Output. <i>Journal of Neurophysiology</i> , 2004, 92, 2510-2519.	0.9	23
71	Sleep-Related Changes in the Regulation of Cerebral Blood Flow in Newborn Lambs. <i>Sleep</i> , 2004, 27, 36-41.	0.6	12
73	Exact Solution for the Optimal Neuronal Layout Problem. <i>Neural Computation</i> , 2004, 16, 2067-2078.	1.3	58
74	Linking Hemodynamic and Electrophysiological Measures of Brain Activity: Evidence from Functional MRI and Intracranial Field Potentials. <i>Cerebral Cortex</i> , 2004, 14, 165-173.	1.6	88
75	C75, a Fatty Acid Synthase Inhibitor, Modulates AMP-activated Protein Kinase to Alter Neuronal Energy Metabolism. <i>Journal of Biological Chemistry</i> , 2004, 279, 3817-3827.	1.6	111

#	ARTICLE	IF	CITATIONS
76	Non-linearities in the blood-oxygenation-level dependent (BOLD) response measured by functional magnetic resonance imaging (fMRI)., 2004, 2004, 4413-6.		5
77	Glutamate Mediates Acute Glucose Transport Inhibition in Hippocampal Neurons. Journal of Neuroscience, 2004, 24, 9669-9673.	1.7	128
78	Default brain functionality in blind people. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15500-15505.	3.3	29
79	fMRI activation during spike and wave discharges in idiopathic generalized epilepsy. Brain, 2004, 127, 1127-1144.	3.7	350
80	Regional glucose metabolism and glutamatergic neurotransmission in rat brain in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12700-12705.	3.3	88
81	MAPS IN THE BRAIN: What Can We Learn from Them?. Annual Review of Neuroscience, 2004, 27, 369-392.	5.0	317
82	Small modulation of ongoing cortical dynamics by sensory input during natural vision. Nature, 2004, 431, 573-578.	13.7	368
83	Empiricism and Rationalism: Two Paths toward the Same Goal. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1240-1241.	2.4	8
84	The Astrocyte-Neuron Lactate Shuttle: A Challenge of a Challenge. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1241-1248.	2.4	107
85	Coupling of Changes in Cerebral Blood Flow with Neural Activity: What Must Initially Dip Must Come Back Up. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1-6.	2.4	77
86	Sustained Poststimulus Elevation in Cerebral Oxygen Utilization after Vascular Recovery. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 764-770.	2.4	152
87	Glutamatergic Neurotransmission and Neuronal Glucose Oxidation are Coupled during Intense Neuronal Activation. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 972-985.	2.4	141
88	Selective Uptake of [14C]2-Deoxyglucose by Neurons and Astrocytes: High-Resolution Microautoradiographic Imaging by Cellular 14C-Trajectory Combined with Immunohistochemistry. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1004-1014.	2.4	97
89	In Vivo Measurement of Glucose Utilization in Rats using a \hat{I}^2 -Microprobe: Direct Comparison with Autoradiography. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1015-1024.	2.4	10
90	Modeling Cerebral Arteriovenous Lactate Kinetics after Intravenous Lactate Infusion in the Rat. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1071-1080.	2.4	16
91	Relative Changes in Cerebral Blood Flow and Neuronal Activity in Local Microdomains during Generalized Seizures. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1057-1068.	2.4	64
92	The Role of Hypotheses in Current Research, Illustrated by Hypotheses on the Possible Role of Astrocytes in Energy Metabolism and Cerebral Blood Flow: From Newton to Now. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1235-1239.	2.4	14
93	Gene expression profiling of the rat superior olivary complex using serial analysis of gene expression. European Journal of Neuroscience, 2004, 20, 3244-3258.	1.2	15

#	ARTICLE	IF	CITATIONS
94	Ca ²⁺ and mitochondria as substrates for deficits in synaptic plasticity in normal brain ageing. <i>Journal of Cellular and Molecular Medicine</i> , 2004, 8, 181-190.	1.6	64
95	Sparse coding of sensory inputs. <i>Current Opinion in Neurobiology</i> , 2004, 14, 481-487.	2.0	1,153
96	Efficiency of Information Transmission by Retinal Ganglion Cells. <i>Current Biology</i> , 2004, 14, 1523-1530.	1.8	79
97	Vision: In the Brain of the Beholder. <i>Current Biology</i> , 2004, 14, R997-R999.	1.8	1
98	In, out, shake it all about: elevation of [Ca ²⁺] _i during acute cerebral ischaemia. <i>Cell Calcium</i> , 2004, 36, 235-245.	1.1	19
99	Interpreting the BOLD Signal. <i>Annual Review of Physiology</i> , 2004, 66, 735-769.	5.6	1,320
100	An application of a new planar positron imaging system (PPIS) in a small animal: MPTP-induced Parkinsonism in mouse. <i>Annals of Nuclear Medicine</i> , 2004, 18, 427-431.	1.2	13
101	Role of glial amino acid transporters in synaptic transmission and brain energetics. <i>Glia</i> , 2004, 47, 217-225.	2.5	119
102	On the nature of the BOLD fMRI contrast mechanism. <i>Magnetic Resonance Imaging</i> , 2004, 22, 1517-1531.	1.0	349
103	The selfish brain: competition for energy resources. <i>Neuroscience and Biobehavioral Reviews</i> , 2004, 28, 143-180.	2.9	404
104	Optical imaging of intrinsic signals: recent developments in the methodology and its applications. <i>Journal of Neuroscience Methods</i> , 2004, 136, 1-21.	1.3	114
105	Quantitative On-Line Monitoring of Cellular Glucose and Lactate Metabolism in Vitro with Slow Perfusion. <i>Analytical Chemistry</i> , 2004, 76, 5431-5435.	3.2	10
106	Neuroenergetics: Calling Upon Astrocytes to Satisfy Hungry Neurons. <i>Neuroscientist</i> , 2004, 10, 53-62.	2.6	230
107	The selfish brain: competition for energy resources. <i>Neuroscience and Biobehavioral Reviews</i> , 2004, , .	2.9	1
108	Sociality and the evolution of intelligence. <i>Trends in Cognitive Sciences</i> , 2004, 8, 195-197.	4.0	45
109	Energetic basis of brain activity: implications for neuroimaging. <i>Trends in Neurosciences</i> , 2004, 27, 489-495.	4.2	511
110	Energy metabolism in mammalian brain during development. <i>Progress in Neurobiology</i> , 2004, 73, 397-445.	2.8	259
111	Synaptic Connectivity and Neuronal Morphology. <i>Neuron</i> , 2004, 43, 609-617.	3.8	148

#	ARTICLE	IF	CITATIONS
112	Dendritic spines disappear with chilling but proliferate excessively upon rewarming of mature hippocampus. <i>Neuroscience</i> , 2004, 127, 69-80.	1.1	160
113	Capillary level imaging of local cerebral blood flow in bicuculline-induced epileptic foci. <i>Neuroscience</i> , 2004, 128, 209-216.	1.1	48
114	Nutrition during brain activation: does cell-to-cell lactate shuttling contribute significantly to sweet and sour food for thought?. <i>Neurochemistry International</i> , 2004, 45, 321-351.	1.9	153
115	Linear and Nonlinear Relationships between Neuronal Activity, Oxygen Metabolism, and Hemodynamic Responses. <i>Neuron</i> , 2004, 42, 347-355.	3.8	278
116	Brain Energy Metabolism. , 2004, , 67-89.		7
117	Focal changes of oxygen consumption in cerebral cortex of patients with Parkinson's disease during subthalamic stimulation. <i>NeuroImage</i> , 2004, 22, 966-974.	2.1	23
118	Modeling the hemodynamic response to brain activation. <i>NeuroImage</i> , 2004, 23, S220-S233.	2.1	1,023
119	Combining EEG and fMRI in Epilepsy: Methodological Challenges and Clinical Results. <i>Journal of Clinical Neurophysiology</i> , 2004, 21, 229-240.	0.9	102
120	Quantal synaptic failures enhance performance in a minimal hippocampal model. <i>Network: Computation in Neural Systems</i> , 2004, 15, 45-67.	2.2	8
121	Cerebral metabolism during upper and lower body exercise. <i>Journal of Applied Physiology</i> , 2004, 97, 1733-1739.	1.2	21
122	Analysis of the Optimal Channel Density of the Squid Giant Axon Using a Reparameterized Hodgkin-Huxley Model. <i>Journal of Neurophysiology</i> , 2004, 91, 2541-2550.	0.9	30
123	A POSSIBLE ROLE FOR SLEEP IN SYNAPTIC HOMEOSTASIS. , 2005, , 77-101.		1
124	In vivo neurochemical monitoring and the study of behaviour. <i>Neuroscience and Biobehavioral Reviews</i> , 2005, 29, 949-962.	2.9	64
125	Being a self: Considerations from functional imaging. <i>Consciousness and Cognition</i> , 2005, 14, 679-697.	0.8	98
126	Functional Magnetic Resonance Imaging and Multiple Sclerosis: The Evidence for Neuronal Plasticity. <i>Journal of Neuroimaging</i> , 2005, 15, 82S-93S.	1.0	33
127	How Astrocytes Feed Hungry Neurons. <i>Molecular Neurobiology</i> , 2005, 32, 059-072.	1.9	109
128	Oxygen consumption and mitochondrial membrane potential indicate developmental adaptation in energy metabolism of rat cortical neurons. <i>European Journal of Neuroscience</i> , 2005, 21, 2721-2732.	1.2	20
129	Reading vascular changes in brain imaging: is dendritic calcium the key?. <i>Nature Reviews Neuroscience</i> , 2005, 6, 77-85.	4.9	249

#	ARTICLE	IF	CITATIONS
130	Neuroenergetics and the kinetic design of excitatory synapses. <i>Nature Reviews Neuroscience</i> , 2005, 6, 841-849.	4.9	156
131	The site of action potential initiation in cerebellar Purkinje neurons. <i>Nature Neuroscience</i> , 2005, 8, 137-139.	7.1	132
132	Activity-induced tissue oxygenation changes in rat cerebellar cortex: interplay of postsynaptic activation and blood flow. <i>Journal of Physiology</i> , 2005, 565, 279-294.	1.3	126
133	Unmasking group III metabotropic glutamate autoreceptor function at excitatory synapses in the rat CNS. <i>Journal of Physiology</i> , 2005, 565, 885-896.	1.3	64
134	Ion-Channel Noise Places Limits on the Miniaturization of the Brain's Wiring. <i>Current Biology</i> , 2005, 15, 1143-1149.	1.8	185
135	Sexual Selection: Copycat Mating in Birds. <i>Current Biology</i> , 2005, 15, R626-R628.	1.8	52
136	Brain Evolution: Getting Better All the Time?. <i>Current Biology</i> , 2005, 15, R624-R626.	1.8	27
137	In vivo effect of chronic hypoxia on the neurochemical profile of the developing rat hippocampus. <i>Developmental Brain Research</i> , 2005, 156, 202-209.	2.1	64
138	About being BOLD. <i>Brain Research Reviews</i> , 2005, 50, 229-243.	9.1	112
139	Conduction velocity costs energy. <i>Neurocomputing</i> , 2005, 65-66, 907-913.	3.5	2
140	Visually evoked hemodynamical response and assessment of neurovascular coupling in the optic nerve and retina. <i>Progress in Retinal and Eye Research</i> , 2005, 24, 183-215.	7.3	228
141	In vivo ¹⁷ O NMR approaches for brain study at high field. <i>NMR in Biomedicine</i> , 2005, 18, 83-103.	1.6	108
142	Dynamic study of cerebral bioenergetics and brain function using in vivo multinuclear MRS approaches. <i>Concepts in Magnetic Resonance Part A: Bridging Education and Research</i> , 2005, 27A, 84-121.	0.2	15
143	Effect of unilateral noise exposure on the tonotopic distribution of spontaneous activity in the cochlear nucleus and inferior colliculus in the cortically intact and decorticate rat. <i>Journal of Comparative Neurology</i> , 2005, 490, 391-413.	0.9	35
144	Intrinsic brain activity sets the stage for expression of motivated behavior. <i>Journal of Comparative Neurology</i> , 2005, 493, 167-176.	0.9	201
145	PET is better than perfusion SPECT for early diagnosis of Alzheimer's disease. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2005, 32, 1466-1472.	3.3	11
146	Energy gradients for the homeostatic control of brain ECF composition and for VT signal migration: introduction of the tide hypothesis. <i>Journal of Neural Transmission</i> , 2005, 112, 45-63.	1.4	37
147	Role of astrocytes in glutamate homeostasis: Implications for excitotoxicity. <i>Neurotoxicity Research</i> , 2005, 8, 221-225.	1.3	156

#	ARTICLE	IF	CITATIONS
148	Effects of Behavioral Depression and Chronic Influence of Antidepressants on NMDA/Glutamate Receptor-Mediated Responses of Neurons of the Rat Gyrus Dentatus. <i>Neurophysiology</i> , 2005, 37, 111-119.	0.2	7
149	Contribution of Extracellular Glutamine as An Anaplerotic Substrate to Neuronal Metabolism: A Re-Evaluation by Multinuclear NMR Spectroscopy in Primary Cultured Neurons. <i>Neurochemical Research</i> , 2005, 30, 1269-1281.	1.6	14
150	On the Breadth and Significance of Niche Construction: A Reply to Griffiths, Okasha and Sterelny. <i>Biology and Philosophy</i> , 2005, 20, 37-55.	0.7	31
151	Demonstration of hyperaccumulation of [18F]2-fluoro-2-deoxy-D-glucose under oxygen deprivation in living brain slices using bioradiography. <i>Synapse</i> , 2005, 55, 252-261.	0.6	10
152	Imaging Cerebral Metabolic Rate of Oxygen Consumption (CMRO2) Using 17O NMR Approach at Ultrahigh Field. , 2005, , 125-146.		2
153	Quantal Encoding of Information in a Retinal Ganglion Cell. <i>Journal of Neurophysiology</i> , 2005, 94, 1048-1056.	0.9	23
154	Motion Adaptation Leads to Parsimonious Encoding of Natural Optic Flow by Blowfly Motion Vision System. <i>Journal of Neurophysiology</i> , 2005, 94, 1761-1769.	0.9	16
155	Deriving Changes in CMRO2 from Calibrated fMRI. , 2005, , 147-171.		4
156	Cerebral Energetics and Neurotransmitter Fluxes. , 2005, , 73-97.		0
157	Segregation of the Brain into Gray and White Matter: A Design Minimizing Conduction Delays. <i>PLoS Computational Biology</i> , 2005, 1, e78.	1.5	122
158	Hemodynamic Signals Correlate Tightly with Synchronized Gamma Oscillations. <i>Science</i> , 2005, 309, 948-951.	6.0	722
159	Normal brain ageing: models and mechanisms. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2005, 360, 2347-2354.	1.8	86
160	Brain Development and Susceptibility to Damage; Ion Levels and Movements. <i>Current Topics in Developmental Biology</i> , 2005, 69, 139-186.	1.0	11
161	A Preferential Role for Glycolysis in Preventing the Anoxic Depolarization of Rat Hippocampal Area CA1 Pyramidal Cells. <i>Journal of Neuroscience</i> , 2005, 25, 848-859.	1.7	95
162	Determinants of Action Potential Propagation in Cerebellar Purkinje Cell Axons. <i>Journal of Neuroscience</i> , 2005, 25, 464-472.	1.7	141
163	The contribution of GABA to glutamate/glutamine cycling and energy metabolism in the rat cortex in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 5588-5593.	3.3	308
164	A refined model of sleep and the time course of memory formation. <i>Behavioral and Brain Sciences</i> , 2005, 28, 51-64.	0.4	374
165	Reflections on geometry and navigation. <i>Connection Science</i> , 2005, 17, 5-21.	1.8	68

#	ARTICLE	IF	CITATIONS
166	Habituation of Retinal Ganglion Cell Activity in Response to Steady State Pattern Visual Stimuli in Normal Subjects. , 2005, 46, 1296.		50
167	Correlations between granule cell physiology and bioenergetics in human temporal lobe epilepsy. Brain, 2005, 128, 1199-1208.	3.7	29
168	The electrical response of cerebellar Purkinje neurons to simulated ischaemia. Brain, 2005, 128, 2408-2420.	3.7	44
169	The effect of hypercapnia on the neural and hemodynamic responses to somatosensory stimulation. NeuroImage, 2005, 27, 609-623.	2.1	96
170	Over-expression of tau results in defective synaptic transmission in Drosophila neuromuscular junctions. Neurobiology of Disease, 2005, 20, 918-928.	2.1	98
171	An update on the role of brain glutamine synthesis and its relation to cell-specific energy metabolism in the hyperammonemic brain: Further studies using NMR spectroscopy. Neurochemistry International, 2005, 47, 19-30.	1.9	74
172	The role of lactate in brain metabolism. Neurochemistry International, 2005, 47, 413-417.	1.9	75
173	Urginea sanguinea: medicinal wonder or death in disguise?. Environmental Toxicology and Pharmacology, 2005, 20, 26-34.	2.0	22
174	Why glucose transport in the brain matters for PET. Trends in Neurosciences, 2005, 28, 117-119.	4.2	58
175	A multi-photon window onto neuronal-glial-vascular communication. Trends in Neurosciences, 2005, 28, 217-219.	4.2	26
176	Metabolic indices shift in the hypothalamic-neurohypophysial system during lactation: Implications for interpreting their relationship with neuronal activity. Neuroscience, 2005, 134, 1217-1222.	1.1	1
177	How Close Are We to Understanding V1?. Neural Computation, 2005, 17, 1665-1699.	1.3	411
178	Mechanisms of animal global navigation: comparative perspectives and enduring challenges. Ethology Ecology and Evolution, 2005, 17, 295-318.	0.6	128
179	Do We Know What the Early Visual System Does?. Journal of Neuroscience, 2005, 25, 10577-10597.	1.7	563
180	Is the early visual system optimised to be energy efficient?. Network: Computation in Neural Systems, 2005, 16, 175-190.	2.2	34
181	Neuron-glia metabolic coupling and plasticity. Journal of Experimental Biology, 2006, 209, 2304-2311.	0.8	589
182	Wiring optimization can relate neuronal structure and function. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 4723-4728.	3.3	509
183	BRAIN WORK AND BRAIN IMAGING. Annual Review of Neuroscience, 2006, 29, 449-476.	5.0	1,393

#	ARTICLE	IF	CITATIONS
184	BOLD response during uncoupling of neuronal activity and CBF. <i>NeuroImage</i> , 2006, 32, 1-8.	2.1	41
185	Evolution of increased glia-neuron ratios in the human frontal cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 13606-13611.	3.3	303
186	fMRI MODELS OF DENDRITIC AND ASTROCYTIC NETWORKS. <i>Journal of Integrative Neuroscience</i> , 2006, 05, 273-326.	0.8	17
187	An evolutionary perspective on caching by corvids. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2006, 273, 417-423.	1.2	127
188	Excitatory actions of GABA mediate severe-hypoxia-induced depression of neuronal activity in the pond snail (<i>Lymnaea stagnalis</i>). <i>Journal of Experimental Biology</i> , 2006, 209, 4429-4435.	0.8	18
189	Adaptive reconfiguration of fractal small-world human brain functional networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 19518-19523.	3.3	763
190	Gene profiling during development and after a peripheral nerve traumatism reveals genes specifically induced by injury in dorsal root ganglia. <i>Molecular and Cellular Neurosciences</i> , 2006, 32, 217-229.	1.0	44
191	Treatment with dehydroepiandrosterone (DHEA) stimulates oxidative energy metabolism in the cerebral mitochondria. <i>Neuroscience Letters</i> , 2006, 402, 131-136.	1.0	23
192	Sensory-Evoked Intrinsic Optical Signals in the Olfactory Bulb Are Coupled to Glutamate Release and Uptake. <i>Neuron</i> , 2006, 52, 335-345.	3.8	106
193	Transports of Delight. <i>Neuron</i> , 2006, 52, 224-225.	3.8	1
194	Coupling energy metabolism with a mechanism to support brain-derived neurotrophic factor-mediated synaptic plasticity. <i>Neuroscience</i> , 2006, 139, 1221-1234.	1.1	141
195	Glucose and lactate are equally effective in energizing activity-dependent synaptic vesicle turnover in purified cortical neurons. <i>Neuroscience</i> , 2006, 141, 157-165.	1.1	23
196	Sleep function and synaptic homeostasis. <i>Sleep Medicine Reviews</i> , 2006, 10, 49-62.	3.8	1,738
197	Metabolic Energy Cost of Action Potential Velocity. <i>Journal of Neurophysiology</i> , 2006, 96, 1237-1246.	0.9	63
198	Chapter 2.6 Ultraslow microfiltration and microdialysis for in vivo sampling: principle, techniques, and applications. <i>Handbook of Behavioral Neuroscience</i> , 2006, 16, 217-230.	0.7	1
199	Computational neuroimaging: maps and tracks in the human brain. , 2006, 6057, 605701.		2
200	Measurement of serotonin transporter binding with PET and [11C]MADAM: A testâ€“retest reproducibility study. <i>Synapse</i> , 2006, 60, 256-263.	0.6	47
201	Populations of hippocampal inhibitory neurons express different levels of cytochromec. <i>European Journal of Neuroscience</i> , 2006, 23, 2581-2594.	1.2	124

#	ARTICLE	IF	CITATIONS
202	Neuron?astrocyte interactions in the regulation of brain energy metabolism: a focus on NMR spectroscopy. <i>Journal of Neurochemistry</i> , 2006, 99, 393-401.	2.1	51
203	Sleep-dependent changes in cerebral oxygen consumption in newborn lambs. <i>Journal of Sleep Research</i> , 2006, 15, 206-211.	1.7	16
204	Unique features of action potential initiation in cortical neurons. <i>Nature</i> , 2006, 440, 1060-1063.	13.7	321
205	Glucose is Necessary to Maintain Neurotransmitter Homeostasis during Synaptic Activity in Cultured Glutamatergic Neurons. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2006, 26, 1285-1297.	2.4	153
206	Functions Of N-Acetylaspartate and N-Acetylaspartylglutamate in Brain. <i>Advances in Experimental Medicine and Biology</i> , 2006, 576, 95-112.	0.8	18
207	Bloodâ€“Brain Barrier Penetration of Zolmitriptanâ€”Modelling of Positron Emission Tomography Data. <i>Journal of Pharmacokinetics and Pharmacodynamics</i> , 2006, 33, 75-91.	0.8	33
208	Local luminance and contrast in natural images. <i>Vision Research</i> , 2006, 46, 1585-1598.	0.7	260
209	How Much the Eye Tells the Brain. <i>Current Biology</i> , 2006, 16, 1428-1434.	1.8	193
210	The neurotoxic effects of prenatal cardiac glycoside exposure: A hypothesis. <i>Neurotoxicology and Teratology</i> , 2006, 28, 135-143.	1.2	13
211	Comparative gene expression analysis reveals a characteristic molecular profile of the superior olivary complex. <i>The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology</i> , 2006, 288A, 409-423.	2.0	10
212	Combining EEG and fMRI: A multimodal tool for epilepsy research. <i>Journal of Magnetic Resonance Imaging</i> , 2006, 23, 906-920.	1.9	227
213	Mitochondrial biogenesis in the anticonvulsant mechanism of the ketogenic diet. <i>Annals of Neurology</i> , 2006, 60, 223-235.	2.8	517
214	Functional Magnetic Resonance Imaging. , 2006, , 401-422.		42
215	Placement and routing optimization in the brain. , 2006, , .		2
216	Covert attention increases contrast sensitivity: psychophysical, neurophysiological and neuroimaging studies. <i>Progress in Brain Research</i> , 2006, 154, 33-70.	0.9	127
217	Brain mitochondrial defects amplify intracellular [Ca ²⁺] rise and neurodegeneration but not Ca ²⁺ entry during NMDA receptor activation. <i>FASEB Journal</i> , 2006, 20, 1021-1023.	0.2	63
218	Cerebellar Cortical Molecular Layer Inhibition Is Organized in Parasagittal Zones. <i>Journal of Neuroscience</i> , 2006, 26, 8377-8387.	1.7	115
219	Energy aspects of the synchronization of model neurons. <i>Physical Review E</i> , 2006, 74, 011905.	0.8	54

#	ARTICLE	IF	CITATIONS
220	Differential Effects of NMDA and AMPA Glutamate Receptors on Functional Magnetic Resonance Imaging Signals and Evoked Neuronal Activity during Forepaw Stimulation of the Rat. <i>Journal of Neuroscience</i> , 2006, 26, 8409-8416.	1.7	66
221	Metabolic Disruption in <i>Drosophila</i> Bang-Sensitive Seizure Mutants. <i>Genetics</i> , 2006, 173, 1357-1364.	1.2	89
222	Neuronal metabolism governs cortical network response state. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 5597-5601.	3.3	165
223	An Energy Budget for the Olfactory Glomerulus. <i>Journal of Neuroscience</i> , 2007, 27, 9790-9800.	1.7	68
224	Dysfunction of GABAA receptor glycolysis-dependent modulation in human partial epilepsy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 3472-3477.	3.3	39
225	How robust is a neural circuit?. <i>Visual Neuroscience</i> , 2007, 24, 563-571.	0.5	11
226	Effects of Peroxisome Proliferator-Activated Receptor Gamma Agonists on Brain Glucose and Glutamate Transporters after Stress in Rats. <i>Neuropsychopharmacology</i> , 2007, 32, 1251-1260.	2.8	85
227	Fly Photoreceptors Demonstrate Energy-Information Trade-Offs in Neural Coding. <i>PLoS Biology</i> , 2007, 5, e116.	2.6	218
228	Chronic intermittent but not constant hypoxia decreases NAA/Cr ratios in neonatal mouse hippocampus and thalamus. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2007, 292, R1254-R1259.	0.9	51
229	Heterogeneous regional and temporal energetic impairment following controlled cortical impact injury in rats. <i>Neurological Research</i> , 2007, 29, 594-603.	0.6	18
230	Imposing Biological Constraints onto an Abstract Neocortical Attractor Network Model. <i>Neural Computation</i> , 2007, 19, 1871-1896.	1.3	18
231	Optimally wired subnetwork determines neuroanatomy of <i>Caenorhabditis elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 17180-17185.	3.3	43
232	Energetics of neuronal signaling and fMRI activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 20546-20551.	3.3	121
233	Optical Imaging of Contrast Response in Macaque Monkey V1 and V2. <i>Cerebral Cortex</i> , 2007, 17, 2675-2695.	1.6	68
234	NEUROSCIENCE: A Push-Me Pull-You Neural Design. <i>Science</i> , 2007, 315, 339-340.	6.0	6
235	Developmental and Functional Consequences of Disturbed Energetic Communication in Brain of Creatine Kinase-Deficient Mice: Understanding CK's Role in the Fuelling of Behavior and Learning. , 0, , 339-366.		1
236	Inhibition and Brain Work. <i>Neuron</i> , 2007, 56, 771-783.	3.8	365
237	Is lactate food for neurons? Comparison of monocarboxylate transporter subtypes in brain and muscle. <i>Neuroscience</i> , 2007, 145, 11-19.	1.1	200

#	ARTICLE	IF	CITATIONS
238	Neuroprotection by tamoxifen in focal cerebral ischemia is not mediated by an agonist action at estrogen receptors but is associated with antioxidant activity. <i>Experimental Neurology</i> , 2007, 204, 819-827.	2.0	76
239	Glutamateâ€“glutamine cycling in Alzheimer's disease. <i>Neurochemistry International</i> , 2007, 50, 1052-1066.	1.9	130
240	A default mode of brain function: A brief history of an evolving idea. <i>NeuroImage</i> , 2007, 37, 1083-1090.	2.1	1,887
241	Balancing bias, reliability, noise properties and the need for parametric maps in quantitative ligand PET: [11C]diprenorphine testâ€“retest data. <i>NeuroImage</i> , 2007, 38, 82-94.	2.1	46
242	Cognitive neurophysiology: Beyond averaging. <i>NeuroImage</i> , 2007, 37, 1069-1072.	2.1	30
243	The Transcriptome and Metabolic Gene Signature of Protoplasmic Astrocytes in the Adult Murine Cortex. <i>Journal of Neuroscience</i> , 2007, 27, 12255-12266.	1.7	420
244	3.2 Glialâ€“Neuronal Shuttle Systems. , 2007, , 197-238.		6
245	5.1 Acidâ€“Base Transport and pH Regulation. , 2007, , 469-486.		3
246	4.5 Coupling of Brain Function to Metabolism: Evaluation of Energy Requirements. , 2007, , 343-400.		15
247	Sparse Coding in the Neocortex. , 2007, , 181-187.		15
248	Neural Decision Boundaries for Maximal Information Transmission. <i>PLoS ONE</i> , 2007, 2, e646.	1.1	15
249	Sleep Homeostasis and Cortical Synchronization: II. A Local Field Potential Study of Sleep Slow Waves in the Rat. <i>Sleep</i> , 2007, 30, 1631-1642.	0.6	201
250	Gestational and Lactational Iron Deficiency Alters the Developing Striatal Metabolome and Associated Behaviors in Young Rats1. <i>Journal of Nutrition</i> , 2007, 137, 1043-1049.	1.3	88
251	Metabolic Biopsy of the Brain. , 2007, , 77-100.		3
252	Contrast Gain Control Is Drift-Rate Dependent: An Informational Analysis. <i>Journal of Neurophysiology</i> , 2007, 97, 1078-1087.	0.9	10
253	Forward models for fMRI. , 2007, , 339-351.		1
255	Protective effect of cerebrocrast on rat brain ischaemia induced by occlusion of both common carotid arteries. <i>Cell Biochemistry and Function</i> , 2007, 25, 203-210.	1.4	17
256	Compartmentalization of brain energy metabolism between glia and neurons: Insights from mathematical modeling. <i>Glia</i> , 2007, 55, 1272-1279.	2.5	21

#	ARTICLE	IF	CITATIONS
257	A quantitative overview of glucose dynamics in the gliovascular unit. <i>Glia</i> , 2007, 55, 1222-1237.	2.5	111
258	Methylphenidate-induced activation of the anterior cingulate but not the striatum: A [¹⁵ O]H ₂ O PET study in healthy volunteers. <i>Human Brain Mapping</i> , 2007, 28, 625-635.	1.9	34
259	Alterations in photoreceptorâ€‘bipolar cell signaling following ischemia/reperfusion in the rat retina. <i>Journal of Comparative Neurology</i> , 2007, 505, 131-146.	0.9	42
260	Metabolic and functional profiling of the ischemic/reperfused rat retina. <i>Journal of Comparative Neurology</i> , 2007, 505, 114-130.	0.9	39
261	Efficient in vivo ³¹ P magnetization transfer approach for noninvasively determining multiple kinetic parameters and metabolic fluxes of ATP metabolism in the human brain. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 103-114.	1.9	113
262	Flavoprotein autofluorescence imaging in the cerebellar cortex in vivo. <i>Journal of Neuroscience Research</i> , 2007, 85, 3221-3232.	1.3	67
263	Dynamics of lactate concentration and blood oxygen level-dependent effect in the human visual cortex during repeated identical stimuli. <i>Journal of Neuroscience Research</i> , 2007, 85, 3340-6.	1.3	58
264	The glutamateâ€‘glutamine cycle is not stoichiometric: Fates of glutamate in brain. <i>Journal of Neuroscience Research</i> , 2007, 85, 3347-3358.	1.3	324
265	Global and regional brain metabolic scaling and its functional consequences. <i>BMC Biology</i> , 2007, 5, 18.	1.7	131
266	Reconstruction and flux analysis of coupling between metabolic pathways of astrocytes and neurons: application to cerebral hypoxia. <i>Theoretical Biology and Medical Modelling</i> , 2007, 4, 48.	2.1	74
267	Glial regulation of the cerebral microvasculature. <i>Nature Neuroscience</i> , 2007, 10, 1369-1376.	7.1	1,003
268	Energy Metabolism in Astrocytes: High Rate of Oxidative Metabolism and Spatiotemporal Dependence on Glycolysis/Glycogenolysis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2007, 27, 219-249.	2.4	516
269	Sustained Neuronal Activation Raises Oxidative Metabolism to a New Steady-State Level: Evidence from ¹ H NMR Spectroscopy in the Human Visual Cortex. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2007, 27, 1055-1063.	2.4	253
270	Glutamatergic and GABAergic Neurotransmitter Cycling and Energy Metabolism in Rat Cerebral Cortex during Postnatal Development. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2007, 27, 1895-1907.	2.4	75
271	Spontaneous fluctuations in brain activity observed with functional magnetic resonance imaging. <i>Nature Reviews Neuroscience</i> , 2007, 8, 700-711.	4.9	5,936
272	Anticonvulsant Mechanisms of the Ketogenic Diet. <i>Epilepsia</i> , 2007, 48, 43-58.	2.6	411
273	Functional MRI Studies of Animal Models in Epilepsy. <i>Epilepsia</i> , 2007, 48, 18-26.	2.6	35
274	Timing of potential and metabolic brain energy. <i>Journal of Neurochemistry</i> , 2007, 103, 1697-1708.	2.1	21

#	ARTICLE	IF	CITATIONS
275	The role of neuronal signaling in controlling cerebral blood flow. <i>Brain and Language</i> , 2007, 102, 141-152.	0.8	155
276	Coupling between Neuronal Firing Rate, Gamma LFP, and BOLD fMRI Is Related to Interneuronal Correlations. <i>Current Biology</i> , 2007, 17, 1275-1285.	1.8	513
277	Effects of Na ⁺ channel inactivation kinetics on metabolic energy costs of action potentials. <i>Neurocomputing</i> , 2007, 70, 1652-1656.	3.5	7
278	Involvement of N-cholinergic peripheral synapses in energy exchange within a sympathetic ganglion. <i>Neurochemical Journal</i> , 2007, 1, 208-213.	0.2	0
279	Mapping Human Whole-Brain Structural Networks with Diffusion MRI. <i>PLoS ONE</i> , 2007, 2, e597.	1.1	707
280	Cellular pathways of energy metabolism in the brain: Is glucose used by neurons or astrocytes?. <i>Glia</i> , 2007, 55, 1238-1250.	2.5	81
281	Energy substrates to support glutamatergic and GABAergic synaptic function: Role of glycogen, glucose and lactate. <i>Neurotoxicity Research</i> , 2007, 12, 263-268.	1.3	47
282	Seasonal changes in intrinsic electrophysiological activity of song control neurons in wild song sparrows. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2007, 193, 677-683.	0.7	46
283	Genetic studies of diseases. <i>Cellular and Molecular Life Sciences</i> , 2007, 64, 1778-1784.	2.4	11
284	The anaplerotic flux and ammonia detoxification in hepatic encephalopathy. <i>Metabolic Brain Disease</i> , 2007, 22, 235-249.	1.4	35
285	Kinetic Parameters and Lactate Dehydrogenase Isozyme Activities Support Possible Lactate Utilization by Neurons. <i>Neurochemical Research</i> , 2007, 32, 597-607.	1.6	69
286	A Primer on Functional Magnetic Resonance Imaging. <i>Neuropsychology Review</i> , 2007, 17, 107-125.	2.5	59
287	Hippocampal extracellular GABA correlates with metabolism in human epilepsy. <i>Metabolic Brain Disease</i> , 2008, 23, 457-468.	1.4	16
288	Mapping causal interregional influences with concurrent TMSâ€“fMRI. <i>Experimental Brain Research</i> , 2008, 191, 383-402.	0.7	197
289	Lipoproteins Obtained from Anorexia Nervosa Patients Induce Higher Oxidative Stress in U373MG Astrocytes Through Nitric Oxide Production. <i>NeuroMolecular Medicine</i> , 2008, 10, 17-23.	1.8	6
290	Na ⁺ â€“Ca ²⁺ cosignaling in the stimulation of the glucose transporter GLUT1 in cultured astrocytes. <i>Glia</i> , 2008, 56, 59-68.	2.5	74
291	A novel method for integrating MEG and BOLD fMRI signals with the linear convolution model in human primary somatosensory cortex. <i>Human Brain Mapping</i> , 2008, 29, 97-106.	1.9	14
292	Efficient connection strategies in 1D and 2D associative memory models with and without displaced connectivity. <i>BioSystems</i> , 2008, 94, 87-94.	0.9	2

#	ARTICLE	IF	CITATIONS
293	Interictal hyperemia correlates with epileptogenicity in polymicrogyric cortex. <i>Epilepsy Research</i> , 2008, 79, 39-48.	0.8	10
294	Synaptic Theory of Working Memory. <i>Science</i> , 2008, 319, 1543-1546.	6.0	1,019
295	Assessing the physiological concentration and targets of nitric oxide in brain tissue. <i>Journal of Physiology</i> , 2008, 586, 3597-3615.	1.3	40
296	Noise in the nervous system. <i>Nature Reviews Neuroscience</i> , 2008, 9, 292-303.	4.9	2,230
297	Molecular and electrophysiological evidence for net synaptic potentiation in wake and depression in sleep. <i>Nature Neuroscience</i> , 2008, 11, 200-208.	7.1	693
298	Close Coupling between Astrocytic and Neuronal Metabolisms to Fulfill Anaplerotic and Energy Needs in the Rat Brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2008, 28, 712-724.	2.4	60
299	Gamma-Aminobutyric Acid Modulates Local Brain Oxygen Consumption and Blood Flow in Rat Cerebellar Cortex. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2008, 28, 906-915.	2.4	25
300	SLC25A12 expression is associated with neurite outgrowth and is upregulated in the prefrontal cortex of autistic subjects. <i>Molecular Psychiatry</i> , 2008, 13, 385-397.	4.1	82
301	Epileptic networks studied with EEG–fMRI. <i>Epilepsia</i> , 2008, 49, 42-51.	2.6	183
302	Energy metabolism as part of the anticonvulsant mechanism of the ketogenic diet. <i>Epilepsia</i> , 2008, 49, 91-93.	2.6	82
303	Cost of linearization for different time constants. <i>BMC Neuroscience</i> , 2008, 9, .	0.8	0
304	Bioenergetic–based neuroprotection and glaucoma. <i>Clinical and Experimental Ophthalmology</i> , 2008, 36, 377-385.	1.3	34
305	Hastiness, brain size and predation regime affect the performance of wild guppies in a spatial memory task. <i>Animal Behaviour</i> , 2008, 76, 911-922.	0.8	149
306	Effects of chronic hypoxia in developing rats on dendritic morphology of the CA1 subarea of the hippocampus and on fear-potentiated startle. <i>Brain Research</i> , 2008, 1190, 167-174.	1.1	11
307	Sparse gammatone signal model optimized for English speech does not match the human auditory filters. <i>Brain Research</i> , 2008, 1220, 224-233.	1.1	8
308	Neurophysiology: The Brain at Work. <i>Current Biology</i> , 2008, 18, R418-R420.	1.8	8
309	ATP Consumption by Mammalian Rod Photoreceptors in Darkness and in Light. <i>Current Biology</i> , 2008, 18, 1917-1921.	1.8	320
310	Lactate production and neurotransmitters; evidence from microdialysis studies. <i>Pharmacology Biochemistry and Behavior</i> , 2008, 90, 273-281.	1.3	29

#	ARTICLE	IF	CITATIONS
311	A global phenomenological model of ischemic stroke with stress on spreading depressions. <i>Progress in Biophysics and Molecular Biology</i> , 2008, 97, 4-27.	1.4	33
312	Regulation of retinal blood flow in health and disease. <i>Progress in Retinal and Eye Research</i> , 2008, 27, 284-330.	7.3	493
313	Energy limitation as a selective pressure on the evolution of sensory systems. <i>Journal of Experimental Biology</i> , 2008, 211, 1792-1804.	0.8	841
314	Localized Loss of Ca ²⁺ Homeostasis in Neuronal Dendrites Is a Downstream Consequence of Metabolic Compromise during Extended NMDA Exposures. <i>Journal of Neuroscience</i> , 2008, 28, 5029-5039.	1.7	37
316	Diversity and Evolution of the Insect Ventral Nerve Cord. <i>Annual Review of Entomology</i> , 2008, 53, 253-271.	5.7	61
317	Insect Olfaction. , 2008, , 725-769.		17
318	Coupling of Neural Activity to Blood Flow in Olfactory Glomeruli Is Mediated by Astrocytic Pathways. <i>Neuron</i> , 2008, 58, 897-910.	3.8	220
319	Sparse but not "Grandmother-cell" coding in the medial temporal lobe. <i>Trends in Cognitive Sciences</i> , 2008, 12, 87-91.	4.0	230
320	Cortical metabolic rates as measured by 2-deoxyglucose-uptake are increased after waking and decreased after sleep in mice. <i>Brain Research Bulletin</i> , 2008, 75, 591-597.	1.4	50
321	Chronophin Mediates an ATP-Sensing Mechanism for Cofilin Dephosphorylation and Neuronal Cofilin-Actin Rod Formation. <i>Developmental Cell</i> , 2008, 15, 691-703.	3.1	85
322	The micro-architecture of the cerebral cortex: Functional neuroimaging models and metabolism. <i>NeuroImage</i> , 2008, 40, 1436-1459.	2.1	53
323	The cortical energy needed for conscious perception. <i>NeuroImage</i> , 2008, 40, 1460-1468.	2.1	24
325	Stimulus-Induced Changes in Blood Flow and 2-Deoxyglucose Uptake Dissociate in Ipsilateral Somatosensory Cortex. <i>Journal of Neuroscience</i> , 2008, 28, 14347-14357.	1.7	184
326	Spectrotemporal Processing Differences between Auditory Cortical Fast-Spiking and Regular-Spiking Neurons. <i>Journal of Neuroscience</i> , 2008, 28, 3897-3910.	1.7	109
327	The facilitative glucose transporter GLUT3: 20 years of distinction. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2008, 295, E242-E253.	1.8	367
328	Neuropathology in <i>Drosophila</i> Mutants With Increased Seizure Susceptibility. <i>Genetics</i> , 2008, 178, 947-956.	1.2	29
329	Microcirculation of the Ocular Fundus. , 2008, , 735-765.		5
330	CLIC1 Function Is Required for β -Amyloid-Induced Generation of Reactive Oxygen Species by Microglia. <i>Journal of Neuroscience</i> , 2008, 28, 11488-11499.	1.7	133

#	ARTICLE	IF	CITATIONS
331	A BOLD window into brain waves. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15641-15642.	3.3	54
332	Tightly coupled brain activity and cerebral ATP metabolic rate. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6409-6414.	3.3	173
333	Design of a Neuronal Array. Journal of Neuroscience, 2008, 28, 3178-3189.	1.7	132
334	Exercise-Induced Synaptogenesis in the Hippocampus Is Dependent on UCP2-Regulated Mitochondrial Adaptation. Journal of Neuroscience, 2008, 28, 10766-10771.	1.7	147
335	Functional Trade-Offs in White Matter Axonal Scaling. Journal of Neuroscience, 2008, 28, 4047-4056.	1.7	239
336	Optimal Learning Rules for Discrete Synapses. PLoS Computational Biology, 2008, 4, e1000230.	1.5	39
337	Astrocytes Optimize the Synaptic Transmission of Information. PLoS Computational Biology, 2008, 4, e1000088.	1.5	61
338	Sparse Representation of Sounds in the Unanesthetized Auditory Cortex. PLoS Biology, 2008, 6, e16.	2.6	493
339	Is Sleep Essential?. PLoS Biology, 2008, 6, e216.	2.6	509
340	Integrated Information in Discrete Dynamical Systems: Motivation and Theoretical Framework. PLoS Computational Biology, 2008, 4, e1000091.	1.5	258
341	A Cost-Benefit Analysis of Neuronal Morphology. Journal of Neurophysiology, 2008, 99, 2320-2328.	0.9	143
342	Bioenergetics. Communicative and Integrative Biology, 2008, 1, 114-122.	0.6	14
343	Adaptive Gain Control for Spike-Based Map Communication in a Neuromorphic Vision System. IEEE Transactions on Neural Networks, 2008, 19, 1010-1021.	4.8	3
344	Functional Magnetic Resonance in Psychiatry. Topics in Magnetic Resonance Imaging, 2008, 19, 71-79.	0.7	14
345	Activity-Dependent Release of Adenosine: A Critical Re-Evaluation of Mechanism. Current Neuropharmacology, 2008, 6, 329-337.	1.4	82
346	Selectivity and invariance for visual object perception. Frontiers in Bioscience - Landmark, 2008, Volume, 4889.	3.0	13
347	The construction of olfactory representations. , 2008, , 247-280.		5
348	What's That Sound? Auditory Area CLM Encodes Stimulus Surprise, Not Intensity or Intensity Changes. Journal of Neurophysiology, 2008, 99, 2809-2820.	0.9	62

#	ARTICLE	IF	CITATIONS
349	Comparison of Time-Resolved Frequency Responses and the Event-Related Potential to Auditory Speech Stimuli in Human Cortex. <i>Journal of Neurophysiology</i> , 2009, 102, 377-386.	0.9	142
350	Neuropathology and pathophysiology of stroke. , 0, , 1-27.		4
351	State-Dependent Performance of Optic-Flow Processing Interneurons. <i>Journal of Neurophysiology</i> , 2009, 102, 3606-3618.	0.9	73
353	Neural activity and energy metabolism. , 0, , 5-33.		0
354	Methodologies, practicalities and pitfalls in functional MR imaging. , 0, , 156-168.		0
355	What Is the Optimal Value of the g-Ratio for Myelinated Fibers in the Rat CNS? A Theoretical Approach. <i>PLoS ONE</i> , 2009, 4, e7754.	1.1	342
356	Deciphering neuron-glia compartmentalization in cortical energy metabolism. <i>Frontiers in Neuroenergetics</i> , 2009, 1, 4.	5.3	73
357	Natural Images: Coding Efficiency. , 2009, , 19-27.		13
358	Maximally informative pairwise interactions in networks. <i>Physical Review E</i> , 2009, 80, 031914.	0.8	9
359	Small-World Network Models of Intercellular Coupling Predict Enhanced Synchronization in the Suprachiasmatic Nucleus. <i>Journal of Biological Rhythms</i> , 2009, 24, 243-254.	1.4	68
360	Variable binding by synaptic strength change. <i>Connection Science</i> , 2009, 21, 327-357.	1.8	1
361	The Sparseness of Neuronal Responses in Ferret Primary Visual Cortex. <i>Journal of Neuroscience</i> , 2009, 29, 2355-2370.	1.7	73
362	How the Optic Nerve Allocates Space, Energy Capacity, and Information. <i>Journal of Neuroscience</i> , 2009, 29, 7917-7928.	1.7	201
363	Oxidative Neuroenergetics in Event-Related Paradigms. <i>Journal of Neuroscience</i> , 2009, 29, 1707-1718.	1.7	62
364	The Neuromediator Glutamate, through Specific Substrate Interactions, Enhances Mitochondrial ATP Production and Reactive Oxygen Species Generation in Nonsynaptic Brain Mitochondria. <i>Journal of Biological Chemistry</i> , 2009, 284, 14448-14456.	1.6	62
365	Long-Term Homeostasis of Extracellular Glutamate in the Rat Cerebral Cortex across Sleep and Waking States. <i>Journal of Neuroscience</i> , 2009, 29, 620-629.	1.7	229
366	Principal Cell Spiking, Postsynaptic Excitation, and Oxygen Consumption in the Rat Cerebellar Cortex. <i>Journal of Neurophysiology</i> , 2009, 102, 1503-1512.	0.9	35
367	Baseline brain energy supports the state of consciousness. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 11096-11101.	3.3	135

#	ARTICLE	IF	CITATIONS
368	Functional Magnetic Resonance Imaging of Compensatory Neural Recruitment in Aging and Risk for Alzheimer's Disease: Review and Recommendations. <i>Dementia and Geriatric Cognitive Disorders</i> , 2009, 27, 1-10.	0.7	52
369	A Paradigm Shift in Functional Brain Imaging. <i>Journal of Neuroscience</i> , 2009, 29, 12729-12734.	1.7	235
370	Odor-Evoked Oxygen Consumption by Action Potential and Synaptic Transmission in the Olfactory Bulb. <i>Journal of Neuroscience</i> , 2009, 29, 1424-1433.	1.7	69
371	Circadian and Social Cues Regulate Ion Channel Trafficking. <i>PLoS Biology</i> , 2009, 7, e1000203.	2.6	54
372	Activity-Dependent Regulation of Glucose Transporters. , 2009, , 61-65.		0
373	The Interscutularis Muscle Connectome. <i>PLoS Biology</i> , 2009, 7, e1000032.	2.6	96
374	The Barrel Cortex as a Model to Study Dynamic Neuroglial Interaction. <i>Neuroscientist</i> , 2009, 15, 351-366.	2.6	25
375	Ideal observer analysis of signal quality in retinal circuits. <i>Progress in Retinal and Eye Research</i> , 2009, 28, 263-288.	7.3	16
376	Thermodynamic constraints on fiber diameter, neural activity, and brain temperature. <i>BMC Neuroscience</i> , 2009, 10, .	0.8	0
377	Adaptive changes of inner retina function in response to sustained pattern stimulation. <i>Vision Research</i> , 2009, 49, 505-513.	0.7	17
378	Short-term memory for pictures seen once or twice. <i>Vision Research</i> , 2009, 49, 1657-1667.	0.7	10
379	Mammalian Vision: Rods Are a Bargain. <i>Current Biology</i> , 2009, 19, R69-R71.	1.8	4
380	Leaf Development: Untangling the Spirals. <i>Current Biology</i> , 2009, 19, R71-R74.	1.8	8
381	Are Bigger Brains Better?. <i>Current Biology</i> , 2009, 19, R995-R1008.	1.8	542
382	Auditory Cortex: Representation through Sparsification?. <i>Current Biology</i> , 2009, 19, R1123-R1125.	1.8	8
383	A nerve model of greatly increased energy-efficiency and encoding flexibility over the Hodgkin-Huxley model. <i>Brain Research</i> , 2009, 1296, 225-233.	1.1	20
384	Bipolar disorder and mechanisms of action of mood stabilizers. <i>Brain Research Reviews</i> , 2009, 61, 185-209.	9.1	125
385	Matching cellular metabolic supply and demand in energy-stressed animals. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2009, 153, 95-105.	0.8	62

#	ARTICLE	IF	CITATIONS
386	Preferential transport and metabolism of glucose in Bergmann glia over Purkinje cells: A multiphoton study of cerebellar slices. <i>Glia</i> , 2009, 57, 962-970.	2.5	69
387	Cyclophilin D is expressed predominantly in mitochondria of γ -aminobutyric acidergic interneurons. <i>Journal of Neuroscience Research</i> , 2009, 87, 1250-1259.	1.3	30
388	Noninvasive quantification of whole-brain cerebral metabolic rate of oxygen (CMRO ₂) by MRI. <i>Magnetic Resonance in Medicine</i> , 2009, 62, 141-148.	1.9	172
389	In vivo proton MRS to quantify anesthetic effects of pentobarbital on cerebral metabolism and brain activity in rat. <i>Magnetic Resonance in Medicine</i> , 2009, 62, 1385-1393.	1.9	32
390	Neural coding and contextual influences in the whisker system. <i>Biological Cybernetics</i> , 2009, 100, 427-446.	0.6	36
391	Novel mutations affecting the Na, K ATPase alpha model complex neurological diseases and implicate the sodium pump in increased longevity. <i>Human Genetics</i> , 2009, 126, 431-447.	1.8	34
392	Signaling in large-scale neural networks. <i>Cognitive Processing</i> , 2009, 10, S9-15.	0.7	13
393	Stability and structural constraints of random brain networks with excitatory and inhibitory neural populations. <i>Journal of Computational Neuroscience</i> , 2009, 27, 81-101.	0.6	20
394	The cost of linearization. <i>Journal of Computational Neuroscience</i> , 2009, 27, 259-275.	0.6	5
395	Thermodynamic constraints on neural dimensions, firing rates, brain temperature and size. <i>Journal of Computational Neuroscience</i> , 2009, 27, 415-436.	0.6	46
396	Dopaminergic response to graded dopamine concentration elicited by four amphetamine doses. <i>Synapse</i> , 2009, 63, 764-772.	0.6	46
397	Acid-sensing ion channels in neurones of the rat suprachiasmatic nucleus. <i>Journal of Physiology</i> , 2009, 587, 1727-1737.	1.3	35
398	Receptive fields and functional architecture in the retina. <i>Journal of Physiology</i> , 2009, 587, 2753-2767.	1.3	116
399	Hemodynamic Changes after Visual Stimulation and Breath Holding Provide Evidence for an Uncoupling of Cerebral Blood Flow and Volume from Oxygen Metabolism. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2009, 29, 176-185.	2.4	64
400	Metabolic and Hemodynamic Events after Changes in Neuronal Activity: Current Hypotheses, Theoretical Predictions and <i>in vivo</i> NMR Experimental Findings. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2009, 29, 441-463.	2.4	143
401	New Insights into Central Roles of Cerebral Oxygen Metabolism in the Resting and Stimulus-Evoked Brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2009, 29, 10-18.	2.4	51
402	The probability of neurotransmitter release: variability and feedback control at single synapses. <i>Nature Reviews Neuroscience</i> , 2009, 10, 373-383.	4.9	358
403	Structural and regulatory evolution of cellular electrophysiological systems. <i>Evolution & Development</i> , 2009, 11, 610-618.	1.1	13

#	ARTICLE	IF	CITATIONS
404	A metabolic switch in brain: glucose and lactate metabolism modulation by ascorbic acid. <i>Journal of Neurochemistry</i> , 2009, 110, 423-440.	2.1	119
405	Comparative studies of brain evolution: a critical insight from the Chiroptera. <i>Biological Reviews</i> , 2009, 84, 161-172.	4.7	55
406	On vortices heating biological excitable media. <i>Chaos, Solitons and Fractals</i> , 2009, 42, 2057-2066.	2.5	11
407	Energy consumption and information transmission in model neurons. <i>Chaos, Solitons and Fractals</i> , 2009, 40, 60-68.	2.5	30
408	Energy efficiency of information transmission by electrically coupled neurons. <i>BioSystems</i> , 2009, 97, 60-71.	0.9	41
409	Low-Cost Travel in Neurons. <i>Science</i> , 2009, 325, 1349-1351.	6.0	42
410	Evidence for aerobic ATP synthesis in isolated myelin vesicles. <i>International Journal of Biochemistry and Cell Biology</i> , 2009, 41, 1581-1591.	1.2	92
411	Complexity of mitochondrial dynamics in neurons and its control by ADP produced during synaptic activity. <i>International Journal of Biochemistry and Cell Biology</i> , 2009, 41, 2005-2014.	1.2	32
412	Author's reply to "Cerebral metabolism and sleep homeostasis: A comment on Vyazovskiy et al." <i>Brain Research Bulletin</i> , 2009, 80, 443-445.	1.4	3
413	Heterogeneity of nervous system mitochondria: Location, location, location!. <i>Experimental Neurology</i> , 2009, 218, 293-307.	2.0	59
414	Multiple memory stores and operant conditioning: A rationale for memory's complexity. <i>Brain and Cognition</i> , 2009, 69, 200-208.	0.8	0
415	Miro1 Is a Calcium Sensor for Glutamate Receptor-Dependent Localization of Mitochondria at Synapses. <i>Neuron</i> , 2009, 61, 541-555.	3.8	560
416	Cortical Firing and Sleep Homeostasis. <i>Neuron</i> , 2009, 63, 865-878.	3.8	623
417	Sodium Entry during Action Potentials of Mammalian Neurons: Incomplete Inactivation and Reduced Metabolic Efficiency in Fast-Spiking Neurons. <i>Neuron</i> , 2009, 64, 898-909.	3.8	194
418	The evolution of violence in men: The function of central cholesterol and serotonin. <i>Progress in Neuro-Psychopharmacology and Biological Psychiatry</i> , 2009, 33, 391-397.	2.5	50
419	Behavior in the forced swim test and neurochemical changes in the hippocampus in young rats after 2-week zinc deprivation. <i>Neurochemistry International</i> , 2009, 55, 536-541.	1.9	62
420	Nervous and Sensory Systems in Sub-Arctic and Antarctic Snailfishes of the Genus <i>Paraliparis</i> (Teleostei: Scorpaeniformes: Liparidae). <i>Copeia</i> , 2009, 2009, 732-739.	1.4	5
421	Astrocytic Calcium Signaling: Mechanism and Implications for Functional Brain Imaging. <i>Methods in Molecular Biology</i> , 2009, 489, 93-109.	0.4	55

#	ARTICLE	IF	CITATIONS
422	Cognitive fitness of cost-efficient brain functional networks. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11747-11752.	3.3	385
423	Neurophysiology of functional imaging. NeuroImage, 2009, 45, 1047-1054.	2.1	43
424	Mapping functional connectivity based on synchronized CMRO2 fluctuations during the resting state. NeuroImage, 2009, 45, 694-701.	2.1	62
425	Glutamatergic Approaches to the Conceptualization and Treatment of Schizophrenia. , 2009, , 39-89.		6
426	Where Is the Semantic System? A Critical Review and Meta-Analysis of 120 Functional Neuroimaging Studies. Cerebral Cortex, 2009, 19, 2767-2796.	1.6	3,271
427	Predicting stimulus rate sensitivity of human somatosensory fMRI signals with MEG. Human Brain Mapping, 2009, 30, 1824-1832.	1.9	10
428	Energy-Efficient Action Potentials in Hippocampal Mossy Fibers. Science, 2009, 325, 1405-1408.	6.0	362
429	Barlow's 1972 Paper. Perception, 2009, 38, 795-807.	0.5	10
430	Functional Imaging with Mitochondrial Flavoprotein Autofluorescence. Frontiers in Neuroscience, 2009, , 221-253.	0.0	0
431	Interpreting oxygenation-based neuroimaging signals: the importance and the challenge of understanding brain oxygen metabolism. Frontiers in Neuroenergetics, 2010, 2, 8.	5.3	159
432	Is Brain Amyloid Production a Cause or a Result of Dementia of The Alzheimer's Type?. Journal of Alzheimer's Disease, 2010, 22, 393-399.	1.2	72
433	Activity in the Barrel Cortex During Active Behavior and Sleep. Journal of Neurophysiology, 2010, 103, 2074-2084.	0.9	35
434	A neurocomputational account of taxonomic responding and fast mapping in early word learning.. Psychological Review, 2010, 117, 1-31.	2.7	108
435	<i>in vivo</i> and <i>in vitro</i> assessment of brain bioenergetics in aging rats. Journal of Cellular and Molecular Medicine, 2010, 14, 2667-2674.	1.6	19
436	The new FDG brain revolution: the neurovascular unit and the default network. European Journal of Nuclear Medicine and Molecular Imaging, 2010, 37, 913-916.	3.3	14
437	Consciousness as recursive, spatiotemporal self-location. Psychological Research, 2010, 74, 407-421.	1.0	8
438	Functional Importance of the Astrocytic Glycogen-Shunt and Glycolysis for Maintenance of an Intact Intra/Extracellular Glutamate Gradient. Neurotoxicity Research, 2010, 18, 94-99.	1.3	45
439	Ecological expected utility and the mythical neural code. Cognitive Neurodynamics, 2010, 4, 25-35.	2.3	28

#	ARTICLE	IF	CITATIONS
440	Models of cortical networks with long-range patchy projections. <i>Journal of Computational Neuroscience</i> , 2010, 28, 137-154.	0.6	28
441	Glycolysis Inhibition Decreases the Levels of Glutamate Transporters and Enhances Glutamate Neurotoxicity in the R6/2 Huntington's Disease Mice. <i>Neurochemical Research</i> , 2010, 35, 1156-1163.	1.6	18
442	Behavioural plasticity: an interaction between evolution and experience. <i>Evolutionary Ecology</i> , 2010, 24, 571-583.	0.5	148
443	Hypothetical model of dynamic biomarkers of the Alzheimer's pathological cascade. <i>Lancet Neurology</i> , 2010, 9, 119-128.	4.9	3,792
444	A Mathematical Theory of Energy Efficient Neural Computation and Communication. <i>IEEE Transactions on Information Theory</i> , 2010, 56, 852-874.	1.5	46
445	Activated astroglia during chronic inflammation in Alzheimer's disease—Do they neglect their neurosupportive roles?. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2010, 690, 40-49.	0.4	139
446	Control of mitochondrial transport and localization in neurons. <i>Trends in Cell Biology</i> , 2010, 20, 102-112.	3.6	305
447	Comprehensive correlation between neuronal activity and spin-echo blood oxygenation level-dependent signals in the rat somatosensory cortex evoked by short electrical stimulations at various frequencies and currents. <i>Brain Research</i> , 2010, 1317, 116-123.	1.1	5
448	Glucose and lactate supply to the synapse. <i>Brain Research Reviews</i> , 2010, 63, 149-159.	9.1	139
449	The cytosolic redox state of astrocytes: Maintenance, regulation and functional implications for metabolite trafficking. <i>Brain Research Reviews</i> , 2010, 63, 177-188.	9.1	152
450	Ion changes and signalling in perisynaptic glia. <i>Brain Research Reviews</i> , 2010, 63, 113-129.	9.1	85
451	How and when the fMRI BOLD signal relates to underlying neural activity: The danger in dissociation. <i>Brain Research Reviews</i> , 2010, 62, 233-244.	9.1	269
452	Calcium clearance and its energy requirements in cerebellar neurons. <i>Cell Calcium</i> , 2010, 47, 507-513.	1.1	54
453	High-resolution BOLD fMRI measurements of local orientation-dependent contextual modulation show a mismatch between predicted V1 output and local BOLD response. <i>Vision Research</i> , 2010, 50, 1214-1224.	0.7	7
454	Deep thiopental anesthesia alters steady-state glucose homeostasis but not the neurochemical profile of rat cortex. <i>Journal of Neuroscience Research</i> , 2010, 88, 413-419.	1.3	24
455	Measurement of selected ions related to oxidative stress and energy metabolism in Saudi autistic children. <i>Clinical Biochemistry</i> , 2010, 43, 63-70.	0.8	48
456	Neuronal arithmetic. <i>Nature Reviews Neuroscience</i> , 2010, 11, 474-489.	4.9	449
457	Cerebral Blood Flow Response to Functional Activation. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 2-14.	2.4	214

#	ARTICLE	IF	CITATIONS
458	Altered Brain Mitochondrial Metabolism in Healthy Aging as Assessed by <i>in vivo</i> Magnetic Resonance Spectroscopy. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 211-221.	2.4	223
459	The Energy Use Associated with Neural Computation in the Cerebellum. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 403-414.	2.4	107
460	Changes in Glucose Uptake Rather than Lactate Shuttle Take Center Stage in Subserving Neuroenergetics: Evidence from Mathematical Modeling. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 586-602.	2.4	79
461	Experimental and Preliminary Clinical Evidence of an Ischemic Zone with Prolonged Negative DC Shifts Surrounded by a Normally Perfused Tissue Belt with Persistent Electroencephalographic Depression. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 1504-1519.	2.4	94
462	Glial and neuronal control of brain blood flow. <i>Nature</i> , 2010, 468, 232-243.	13.7	2,003
463	A primer for brain imaging: a tool for evidence-based studies of nutrition?. <i>Nutrition Reviews</i> , 2010, 68, S29-S37.	2.6	9
464	Mitochondrial trafficking and the provision of energy and calcium buffering at excitatory synapses. <i>European Journal of Neuroscience</i> , 2010, 32, 231-240.	1.2	132
465	β -Secretase elevation in aged monkey and Alzheimer's disease human cerebral cortex occurs around the vasculature in partnership with multisystem axon terminal pathogenesis and β -amyloid accumulation. <i>European Journal of Neuroscience</i> , 2010, 32, 1223-1238.	1.2	56
466	Human Biology, Energetics, and the Human Brain. , 0, , 425-438.		7
467	Towards single-cell real-time imaging of energy metabolism in the brain. <i>Frontiers in Neuroenergetics</i> , 2010, 2, 4.	5.3	4
468	Spatial relationship between flavoprotein fluorescence and the hemodynamic response in the primary visual cortex of alert macaque monkeys. <i>Frontiers in Neuroenergetics</i> , 2010, 2, 6.	5.3	15
469	Neurovascular and neurometabolic couplings in dynamic calibrated fMRI: transient oxidative neuroenergetics for block-design and event-related paradigms. <i>Frontiers in Neuroenergetics</i> , 2010, 2, .	5.3	31
470	Synaptic mitochondria in synaptic transmission and organization of vesicle pools in health and disease. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 139.	1.3	206
471	Neuromorphic electronics. , 2010, , 697-752.		3
472	Energy metabolism of the visual system. <i>Eye and Brain</i> , 2010, 2, 99.	3.8	342
474	Impact of "noncaloric" activity-related factors on the predisposition to obesity in children. <i>Risk Management and Healthcare Policy</i> , 2010, 3, 27.	1.2	3
475	Clinical applications of resting state functional connectivity. <i>Frontiers in Systems Neuroscience</i> , 2010, 4, 19.	1.2	911
476	Phylogenomic evidence of adaptive evolution in the ancestry of humans. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 8918-8923.	3.3	24

#	ARTICLE	IF	CITATIONS
477	Flow of energy in the outer retina in darkness and in light. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 8599-8604.	3.3	97
478	Extracellular-derived calcium does not initiate in vivo neurotransmission involving docosahexaenoic acid. Journal of Lipid Research, 2010, 51, 2334-2340.	2.0	28
479	Metabolic cost as a unifying principle governing neuronal biophysics. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12329-12334.	3.3	212
480	Predominant Enhancement of Glucose Uptake in Astrocytes versus Neurons during Activation of the Somatosensory Cortex. Journal of Neuroscience, 2010, 30, 15298-15303.	1.7	179
481	Retina is structured to process an excess of darkness in natural scenes. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17368-17373.	3.3	171
482	Sleep and Synaptic Renormalization: A Computational Study. Journal of Neurophysiology, 2010, 104, 3476-3493.	0.9	87
483	The Isoenergetic Brain: The Idea and Some Implications. Neuroscientist, 2010, 16, 118-124.	2.6	4
484	Mapping of Cortical Activity in the First Two Decades of Life: A High-Density Sleep Electroencephalogram Study. Journal of Neuroscience, 2010, 30, 13211-13219.	1.7	325
485	Fast Sodium Channel Gating Supports Localized and Efficient Axonal Action Potential Initiation. Journal of Neuroscience, 2010, 30, 10233-10242.	1.7	124
486	Frizzled-5, a receptor for the synaptic organizer Wnt7a, regulates activity-mediated synaptogenesis. Development (Cambridge), 2010, 137, 2215-2225.	1.2	116
487	Studying the economy of energy expenditure in a large balanced spiking neuron network. , 2010, , .		0
488	SPICE simulation of nanoscale non-crystalline silicon TFTs in spiking neuron circuits. , 2010, , .		11
489	Sleep and Brain Energy Levels: ATP Changes during Sleep. Journal of Neuroscience, 2010, 30, 9007-9016.	1.7	213
490	Direct Evidence for Wake-Related Increases and Sleep-Related Decreases in Synaptic Strength in Rodent Cortex. Journal of Neuroscience, 2010, 30, 8671-8675.	1.7	197
491	ATP consumption and neural electrical activity: A physiological model for brain imaging. , 2010, 2010, 5480-3.		5
492	The Micro-Architecture of Mitochondria at Active Zones: Electron Tomography Reveals Novel Anchoring Scaffolds and Cristae Structured for High-Rate Metabolism. Journal of Neuroscience, 2010, 30, 1015-1026.	1.7	138
493	Dendritic spikes mediate negative synaptic gain control in cerebellar Purkinje cells. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 22284-22289.	3.3	32
494	Pericytes in capillaries are contractile in vivo, but arterioles mediate functional hyperemia in the mouse brain. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 22290-22295.	3.3	349

#	ARTICLE	IF	CITATIONS
495	GLP-2 potentiates L-type Ca ²⁺ channel activity associated with stimulated glucose uptake in hippocampal neurons. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2010, 298, E156-E166.	1.8	20
496	Neocortical Axon Arbors Trade-off Material and Conduction Delay Conservation. <i>PLoS Computational Biology</i> , 2010, 6, e1000711.	1.5	73
497	Action Potential Energy Efficiency Varies Among Neuron Types in Vertebrates and Invertebrates. <i>PLoS Computational Biology</i> , 2010, 6, e1000840.	1.5	216
498	Efficient Physical Embedding of Topologically Complex Information Processing Networks in Brains and Computer Circuits. <i>PLoS Computational Biology</i> , 2010, 6, e1000748.	1.5	340
499	Memory Capacities for Synaptic and Structural Plasticity. <i>Neural Computation</i> , 2010, 22, 289-341.	1.3	107
500	Energetic considerations on the dynamics of Hodgkin-Huxley neurons. , 2010, , .		1
501	Sensory Experience and Cortical Rewiring. <i>Neuroscientist</i> , 2010, 16, 186-198.	2.6	79
502	Effect of network topology on neuronal encoding based on spatiotemporal patterns of spikes. <i>HFSP Journal</i> , 2010, 4, 153-163.	2.5	14
503	Neural basis of global resting-state fMRI activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 10238-10243.	3.3	860
504	Topographic mapping of rapid transitions in EEG multiple frequencies: EEG frequency domain of operational synchrony. <i>Neuroscience Research</i> , 2010, 68, 207-224.	1.0	13
505	Automated MRI measures predict progression to Alzheimer's disease. <i>Neurobiology of Aging</i> , 2010, 31, 1364-1374.	1.5	91
506	Young age and low temperature, but not female gender delay ATP loss and glutamate release, and protect Purkinje cells during simulated ischemia in cerebellar slices. <i>Neuropharmacology</i> , 2010, 58, 392-403.	2.0	13
507	Statistically optimal perception and learning: from behavior to neural representations. <i>Trends in Cognitive Sciences</i> , 2010, 14, 119-130.	4.0	539
508	Two views of brain function. <i>Trends in Cognitive Sciences</i> , 2010, 14, 180-190.	4.0	916
509	The low synaptic release probability in vivo. <i>Trends in Neurosciences</i> , 2010, 33, 259-266.	4.2	152
510	Relating BOLD fMRI and neural oscillations through convolution and optimal linear weighting. <i>NeuroImage</i> , 2010, 49, 1479-1489.	2.1	69
511	Bifurcation analysis of neural mass models: Impact of extrinsic inputs and dendritic time constants. <i>NeuroImage</i> , 2010, 52, 1041-1058.	2.1	125
512	Electrophysiological correlates of sleep homeostasis in freely behaving rats. <i>Progress in Brain Research</i> , 2011, 193, 17-38.	0.9	97

#	ARTICLE	IF	CITATIONS
513	Minimizing communication power using near-neighbor axon-inspired lattices. , 2011, , .		5
514	Analysis of Multimodal Neuroimaging Data. IEEE Reviews in Biomedical Engineering, 2011, 4, 26-58.	13.1	122
515	Fast and Reversible Stimulation of Astrocytic Glycolysis by K ⁺ and a Delayed and Persistent Effect of Glutamate. Journal of Neuroscience, 2011, 31, 4709-4713.	1.7	157
516	Prospects for quantitative fMRI: Investigating the effects of caffeine on baseline oxygen metabolism and the response to a visual stimulus in humans. NeuroImage, 2011, 57, 809-816.	2.1	73
517	The effect of hypercapnia on resting and stimulus induced MEG signals. NeuroImage, 2011, 58, 1034-1043.	2.1	57
518	Frontal areas contribute to reduced global coordination of resting-state gamma activities in drug-naïve patients with schizophrenia. Schizophrenia Research, 2011, 130, 187-194.	1.1	68
519	Conserved and variable architecture of human white matter connectivity. NeuroImage, 2011, 54, 1262-1279.	2.1	328
520	Trauma and Impaired Consciousness. Neurologic Clinics, 2011, 29, 883-902.	0.8	3
521	Neurokinetics. , 2011, , .		10
522	Hebbian Learning in Spiking Neural Networks With Nanocrystalline Silicon TFTs and Memristive Synapses. IEEE Nanotechnology Magazine, 2011, 10, 1066-1073.	1.1	142
523	Reorganization of functional connectivity during the motor task using EEG time-frequency cross mutual information analysis. Clinical Neurophysiology, 2011, 122, 1569-1579.	0.7	36
524	Brain Energy Metabolism: Focus on Astrocyte-Neuron Metabolic Cooperation. Cell Metabolism, 2011, 14, 724-738.	7.2	1,727
525	Neurochemical and electrophysiological changes induced by paradoxical sleep deprivation in rats. Behavioural Brain Research, 2011, 225, 39-46.	1.2	42
526	Brain Graphs: Graphical Models of the Human Brain Connectome. Annual Review of Clinical Psychology, 2011, 7, 113-140.	6.3	943
527	Brain-immune interactions and the neural basis of disease-avoidant ingestive behaviour. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 3389-3405.	1.8	33
528	Copper handling by astrocytes: Insights into neurodegenerative diseases. International Journal of Developmental Neuroscience, 2011, 29, 811-818.	0.7	96
529	Cholesterol metabolism in neurons and astrocytes. Progress in Lipid Research, 2011, 50, 357-371.	5.3	363
530	Role of Astrocytes in Neurovascular Coupling. Neuron, 2011, 71, 782-797.	3.8	347

#	ARTICLE	IF	CITATIONS
531	Mitochondrial proteins, learning and memory: biochemical specialization of a memory system. <i>Neuroscience</i> , 2011, 194, 112-123.	1.1	18
532	Delta oscillations induced by ketamine increase energy levels in sleep-wake related brain regions. <i>Neuroscience</i> , 2011, 197, 72-79.	1.1	16
533	Molecular neurobiology of sleep. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2011, 98, 191-203.	1.0	19
534	Vascularization of Cytochrome Oxidase-Rich Blobs in the Primary Visual Cortex of Squirrel and Macaque Monkeys. <i>Journal of Neuroscience</i> , 2011, 31, 1246-1253.	1.7	39
535	Molecular Pathophysiology of White Matter Anoxic-Ischemic Injury. , 2011, , 122-137.		7
536	Qubits Underlie Gifted Savants. <i>NeuroQuantology</i> , 2011, 9, .	0.1	1
537	Ionic Imbalance. , 0, , .		0
538	Dual Roles for Spike Signaling in Cortical Neural Populations. <i>Frontiers in Computational Neuroscience</i> , 2011, 5, 22.	1.2	12
539	Neuromorphic Silicon Neurons and Large-Scale Neural Networks: Challenges and Opportunities. <i>Frontiers in Neuroscience</i> , 2011, 5, 108.	1.4	169
540	Region-Specific Expression of Mitochondrial Complex I Genes during Murine Brain Development. <i>PLoS ONE</i> , 2011, 6, e18897.	1.1	21
541	What is the Meaning of the ATP Surge During Sleep?. <i>Sleep</i> , 2011, 34, 833-834.	0.6	7
542	Replies to Commentaries on ATP Changes During Sleep. <i>Sleep</i> , 2011, 34, 841-843.	0.6	6
543	Voxel-level comparison of arterial spin-labeled perfusion MRI and FDG-PET in Alzheimer disease. <i>Neurology</i> , 2011, 77, 1977-1985.	1.5	214
544	DHEA and Dyskinesias. , 2011, , 79-88.		0
545	Sparse and dense coding of natural stimuli by distinct midbrain neuron subpopulations in weakly electric fish. <i>Journal of Neurophysiology</i> , 2011, 106, 3102-3118.	0.9	67
546	Modeling the contribution of neuron-astrocyte cross talk to slow blood oxygenation level-dependent signal oscillations. <i>Journal of Neurophysiology</i> , 2011, 106, 3010-3018.	0.9	17
547	The neurovascular unit in brain function and disease. <i>Acta Physiologica</i> , 2011, 203, 47-59.	1.8	198
548	Local sleep in awake rats. <i>Nature</i> , 2011, 472, 443-447.	13.7	708

#	ARTICLE	IF	CITATIONS
549	Astrocytic energy metabolism and glutamate formation – relevance for ¹³ C-NMR spectroscopy and importance of cytosolic/mitochondrial trafficking. <i>Magnetic Resonance Imaging</i> , 2011, 29, 1319-1329.	1.0	67
550	Visual attention: The past 25 years. <i>Vision Research</i> , 2011, 51, 1484-1525.	0.7	1,874
551	Efficient computation via sparse coding in electrosensory neural networks. <i>Current Opinion in Neurobiology</i> , 2011, 21, 752-760.	2.0	84
552	Mitochondrial DNA toxicity compromises mitochondrial dynamics and induces hippocampal antioxidant defenses. <i>DNA Repair</i> , 2011, 10, 639-653.	1.3	22
553	Are smaller animals behaviourally limited? Lack of clear constraints in miniature spiders. <i>Animal Behaviour</i> , 2011, 81, 813-823.	0.8	44
554	Short-term sleep deprivation increases intrinsic excitability of prefrontal cortical neurons. <i>Brain Research</i> , 2011, 1401, 52-58.	1.1	24
555	Molecular Imaging and the Neuropathologies of Parkinson’s Disease. <i>Current Topics in Behavioral Neurosciences</i> , 2011, 11, 117-148.	0.8	14
556	Local non-linear interactions in the visual cortex may reflect global decorrelation. <i>Journal of Computational Neuroscience</i> , 2011, 30, 109-124.	0.6	11
557	Capacity analysis in multi-state synaptic models: a retrieval probability perspective. <i>Journal of Computational Neuroscience</i> , 2011, 30, 699-720.	0.6	19
558	Exploring optimal current stimuli that provide membrane voltage tracking in a neuron model. <i>Biological Cybernetics</i> , 2011, 104, 185-195.	0.6	6
559	Dynamic activation model for a glutamatergic neurovascular unit. <i>Journal of Theoretical Biology</i> , 2011, 274, 12-29.	0.8	22
560	Hypothesis of an Energetic Function for Myelin. <i>Cell Biochemistry and Biophysics</i> , 2011, 61, 179-187.	0.9	30
561	Cellular and Metabolic Origins of Flavoprotein Autofluorescence in the Cerebellar Cortex in vivo. <i>Cerebellum</i> , 2011, 10, 585-599.	1.4	38
562	Vascular Disruption and the Role of Angiogenic Proteins After Spinal Cord Injury. <i>Translational Stroke Research</i> , 2011, 2, 474-491.	2.3	68
563	The metabolic efficiency of myelinated vs unmyelinated axons. <i>BMC Neuroscience</i> , 2011, 12, .	0.8	9
564	An energy systems approach to Parkinson's disease. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2011, 3, 1-6.	6.6	37
565	Neuron-glia interactions in glutamatergic neurotransmission: Roles of oxidative and glycolytic adenosine triphosphate as energy source. <i>Journal of Neuroscience Research</i> , 2011, 89, 1926-1934.	1.3	50
566	¹³ C MRS studies of neuroenergetics and neurotransmitter cycling in humans. <i>NMR in Biomedicine</i> , 2011, 24, 943-957.	1.6	249

#	ARTICLE	IF	CITATIONS
567	Exploring the post-stimulus undershoot with spin-echo fMRI: Implications for models of neurovascular response. <i>Human Brain Mapping</i> , 2011, 32, 141-153.	1.9	15
568	Effect of filaments within the synaptic cleft on the response of excitatory synapses simulated by computer experiments. <i>BioSystems</i> , 2011, 104, 14-22.	0.9	16
569	The physiology of developmental changes in BOLD functional imaging signals. <i>Developmental Cognitive Neuroscience</i> , 2011, 1, 199-216.	1.9	132
570	Modeling short-term adaptation processes of visual motion detectors. <i>Neurocomputing</i> , 2011, 74, 1329-1339.	3.5	3
571	From Genetics to Structure to Function: Exploring Sleep in <i>Drosophila</i> . <i>International Review of Neurobiology</i> , 2011, 99, 213-244.	0.9	48
572	The Packet Switching Brain. <i>Journal of Cognitive Neuroscience</i> , 2011, 23, 267-276.	1.1	76
573	On the Expressive Power of Deep Architectures. <i>Lecture Notes in Computer Science</i> , 2011, , 18-36.	1.0	125
574	On axon-inspired communications. , 2011, , .		4
575	Phosphorylation of the voltage-gated potassium channel Kv2.1 by AMP-activated protein kinase regulates membrane excitability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 18132-18137.	3.3	125
576	Energy and information in Hodgkin-Huxley neurons. <i>Physical Review E</i> , 2011, 83, 031912.	0.8	80
577	Cerebral Oxygenation Is Depressed During Sleep in Healthy Term Infants When They Sleep Prone. <i>Pediatrics</i> , 2011, 127, e558-e565.	1.0	67
579	The diverse functions of short-term plasticity components in synaptic computations. <i>Communicative and Integrative Biology</i> , 2011, 4, 543-548.	0.6	58
580	NBCe1 Mediates the Acute Stimulation of Astrocytic Glycolysis by Extracellular K^{+} . <i>Journal of Neuroscience</i> , 2011, 31, 14264-14271.	1.7	129
581	Energetic constraints on electric signalling in wave-type weakly electric fishes. <i>Journal of Experimental Biology</i> , 2011, 214, 4141-4150.	0.8	30
582	Endogenous GABA _A and GABA _B receptor-mediated electrical suppression is critical to neuronal anoxia tolerance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 11274-11279.	3.3	61
583	Statistical Traces of Long-Term Memories Stored in Strengths and Patterns of Synaptic Connections. <i>Journal of Neuroscience</i> , 2011, 31, 7657-7669.	1.7	6
584	Adaptation Changes Stereoscopic Depth Selectivity in Visual Cortex. <i>Journal of Neuroscience</i> , 2011, 31, 12198-12207.	1.7	1
585	Sparse coding in striate and extrastriate visual cortex. <i>Journal of Neurophysiology</i> , 2011, 105, 2907-2919.	0.9	78

#	ARTICLE	IF	CITATIONS
586	Scaling of Brain Metabolism with a Fixed Energy Budget per Neuron: Implications for Neuronal Activity, Plasticity and Evolution. PLoS ONE, 2011, 6, e17514.	1.1	246
587	Alterations in Cerebral Metabolic Rate and Blood Supply across the Adult Lifespan. Cerebral Cortex, 2011, 21, 1426-1434.	1.6	311
588	Impact of Fast Sodium Channel Inactivation on Spike Threshold Dynamics and Synaptic Integration. PLoS Computational Biology, 2011, 7, e1001129.	1.5	83
589	EEG-fMRI Methods for the Study of Brain Networks during Sleep. Frontiers in Neurology, 2012, 3, 100.	1.1	43
590	Energy Demand of Synaptic Transmission at the Hippocampal Schaffer-Collateral Synapse. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 2076-2083.	2.4	37
591	R6/2 Huntington's Disease Mice Develop Early and Progressive Abnormal Brain Metabolism and Seizures. Journal of Neuroscience, 2012, 32, 6456-6467.	1.7	72
592	Warm Body Temperature Facilitates Energy Efficient Cortical Action Potentials. PLoS Computational Biology, 2012, 8, e1002456.	1.5	91
593	The Vestibular System Implements a Linear-Nonlinear Transformation In Order to Encode Self-Motion. PLoS Biology, 2012, 10, e1001365.	2.6	51
594	A neurophysiological metabolic model for burst suppression. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3095-3100.	3.3	241
595	Energy Metabolism of the Brain. , 2012, , 200-231.		79
596	A Network of Spiking Neurons for Computing Sparse Representations in an Energy-Efficient Way. Neural Computation, 2012, 24, 2852-2872.	1.3	15
597	AMPK. Communicative and Integrative Biology, 2012, 5, 480-484.	0.6	42
598	The role of the cofilin-actin rod stress response in neurodegenerative diseases uncovers potential new drug targets. Bioarchitecture, 2012, 2, 204-208.	1.5	36
599	Glutamate and Glutamate Receptors. , 2012, , 342-366.		16
600	Self-Organizing Spiking Neural Model for Learning Fault-Tolerant Spatio-Motor Transformations. IEEE Transactions on Neural Networks and Learning Systems, 2012, 23, 1526-1538.	7.2	19
601	Glucose Metabolism During Neural Activation. Advances in Neurobiology, 2012, , 675-697.	1.3	0
602	Constraints on the synchronization of entorhinal cortex stellate cells. Physical Review E, 2012, 86, 011908.	0.8	5
603	Increase of hippocampal glutamate after electroconvulsive treatment: A quantitative proton MR spectroscopy study at 9.4 T in an animal model of depression. World Journal of Biological Psychiatry, 2012, 13, 447-457.	1.3	21

#	ARTICLE	IF	CITATIONS
604	A Berger-Levy energy efficient neuron model with unequal synaptic weights. , 2012, , .		10
605	Oxidative Phosphorylation, Not Glycolysis, Powers Presynaptic and Postsynaptic Mechanisms Underlying Brain Information Processing. Journal of Neuroscience, 2012, 32, 8940-8951.	1.7	353
606	Cytosolic Calcium Coordinates Mitochondrial Energy Metabolism with Presynaptic Activity. Journal of Neuroscience, 2012, 32, 1233-1243.	1.7	63
607	Advances in the diagnosis of anorexia nervosa and bulimia nervosa using brain imaging. Expert Opinion on Medical Diagnostics, 2012, 6, 235-244.	1.6	18
608	The remarkable, yet not extraordinary, human brain as a scaled-up primate brain and its associated cost. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10661-10668.	3.3	480
609	Why Do Axons Differ in Caliber?. Journal of Neuroscience, 2012, 32, 626-638.	1.7	328
610	Replicating Receptive Fields of Simple and Complex Cells in Primary Visual Cortex in a Neuronal Network Model with Temporal and Population Sparseness and Reliability. Neural Computation, 2012, 24, 2700-2725.	1.3	6
611	Mitochondrial Oxidative Phosphorylation. Advances in Experimental Medicine and Biology, 2012, , .	0.8	10
612	Reduction of Metabolic Cost during Motor Learning of Arm Reaching Dynamics. Journal of Neuroscience, 2012, 32, 2182-2190.	1.7	144
613	Time to Be SHY? Some Comments on Sleep and Synaptic Homeostasis. Neural Plasticity, 2012, 2012, 1-12.	1.0	93
614	Homeostatic Plasticity in the Nervous System. Neural Plasticity, 2012, 2012, 1-2.	1.0	10
615	Arterial spin labeling MRI. Current Opinion in Neurology, 2012, 25, 421-428.	1.8	111
616	Fueling and Imaging Brain Activation. ASN Neuro, 2012, 4, AN20120021.	1.5	134
617	Experience-Dependent Plasticity of the Barrel Cortex in Mice Observed with 2-DG Brain Mapping and c-Fos: Effects of MMP-9 KO. Cerebral Cortex, 2012, 22, 2160-2170.	1.6	46
618	Human brain evolution writ large and small. Progress in Brain Research, 2012, 195, 237-254.	0.9	89
620	Lactate as a Biomarker for Sleep. Sleep, 2012, 35, 1209-22.	0.6	83
621	Extracellular Levels of Lactate, but Not Oxygen, Reflect Sleep Homeostasis in the Rat Cerebral Cortex. Sleep, 2012, 35, 909-919.	0.6	43
622	Functional magnetic resonance imaging. , 0, , 410-469.		0

#	ARTICLE	IF	CITATIONS
623	Brain glycogen—new perspectives on its metabolic function and regulation at the subcellular level. <i>Frontiers in Neuroenergetics</i> , 2012, 4, 3.	5.3	171
624	Energy-Efficient Neuron, Synapse and STDP Integrated Circuits. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2012, 6, 246-256.	2.7	166
625	Mitochondria, Sodium, and Calcium in Neuronal Dysfunction. , 2012, , 113-125.		3
626	Mitochondria-Targeted Antioxidant SS31 Prevents Amyloid Beta-Induced Mitochondrial Abnormalities and Synaptic Degeneration in Alzheimer's Disease. <i>Pharmaceuticals</i> , 2012, 5, 1103-1119.	1.7	62
627	Mã©nage Å Trois: The Role of Neurotransmitters in the Energy Metabolism of Astrocytes, Glutamatergic, and GABAergic Neurons. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2012, 32, 1472-1483.	2.4	20
628	Updated Energy Budgets for Neural Computation in the Neocortex and Cerebellum. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2012, 32, 1222-1232.	2.4	542
629	A variational approach to behavioral and neuroelectrical laws. <i>Biological Cybernetics</i> , 2012, 106, 339-358.	0.6	3
630	Serotonin circuits and anxiety: what can invertebrates teach us?. <i>Invertebrate Neuroscience</i> , 2012, 12, 81-92.	1.8	53
631	The Metabolism of Neurons and Astrocytes Through Mathematical Models. <i>Annals of Biomedical Engineering</i> , 2012, 40, 2328-2344.	1.3	16
632	Participation in crowd systems. , 2012, , .		10
633	Integrate-and-fire neuron modeled as a low-rate sparse time-encoding device. , 2012, , .		1
634	Sporadic Alzheimer's Disease: The Starving Brain. <i>Journal of Alzheimer's Disease</i> , 2012, 31, 459-474.	1.2	55
635	Painted Turtle Cortex is Resistant to an <i>In Vitro</i> Mimic of the Ischemic Mammalian Penumbra. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2012, 32, 2033-2043.	2.4	23
636	Photoperiod and stress regulation of corticosteroid receptor, brain-derived neurotrophic factor, and glucose transporter GLUT3 mRNA in the hippocampus of male Siberian hamsters (Phodopus) Tj ETQq1 1 0.784B14 rgBT 10verloc		
637	Experimental evidence for sparse firing in the neocortex. <i>Trends in Neurosciences</i> , 2012, 35, 345-355.	4.2	327
638	Associative Fear Learning Enhances Sparse Network Coding in Primary Sensory Cortex. <i>Neuron</i> , 2012, 75, 121-132.	3.8	92
639	State and location dependence of action potential metabolic cost in cortical pyramidal neurons. <i>Nature Neuroscience</i> , 2012, 15, 1007-1014.	7.1	144
640	Ischemic Cerebral Damage. <i>Stroke</i> , 2012, 43, 607-615.	1.0	215

#	ARTICLE	IF	CITATIONS
641	Regulation of neuronal bioenergy homeostasis by glutamate. <i>Neurochemistry International</i> , 2012, 61, 389-396.	1.9	21
642	The N20 in post-anoxic coma: Are you listening?. <i>Clinical Neurophysiology</i> , 2012, 123, 1460-1464.	0.7	43
643	Metabolic Communication between Astrocytes and Neurons via Bicarbonate-Responsive Soluble Adenylyl Cyclase. <i>Neuron</i> , 2012, 75, 1094-1104.	3.8	225
644	Living on the edge with too many mouths to feed: Why dopamine neurons die. <i>Movement Disorders</i> , 2012, 27, 1478-1483.	2.2	343
645	Apolipoprotein E, Not Fibrillar β -Amyloid, Reduces Cerebral Glucose Metabolism in Normal Aging. <i>Journal of Neuroscience</i> , 2012, 32, 18227-18233.	1.7	146
646	Exocytosis in Astrocytes: Transmitter Release and Membrane Signal Regulation. <i>Neurochemical Research</i> , 2012, 37, 2351-2363.	1.6	53
647	Synaptic Energy Use and Supply. <i>Neuron</i> , 2012, 75, 762-777.	3.8	1,209
648	Brain Lactate Metabolism: The Discoveries and the Controversies. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2012, 32, 1107-1138.	2.4	396
649	A solution to residual noise in speech denoising with sparse representation. , 2012, , .		14
650	Sweet Sixteen for ANLS. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2012, 32, 1152-1166.	2.4	580
651	Organizing probabilistic models of perception. <i>Trends in Cognitive Sciences</i> , 2012, 16, 511-518.	4.0	149
652	Quantitative functional MRI: Concepts, issues and future challenges. <i>NeuroImage</i> , 2012, 62, 1234-1240.	2.1	65
653	Dynamic models of BOLD contrast. <i>NeuroImage</i> , 2012, 62, 953-961.	2.1	180
654	Which "neural activity" do you mean? fMRI, MEG, oscillations and neurotransmitters. <i>NeuroImage</i> , 2012, 62, 1121-1130.	2.1	123
655	The BOLD post-stimulus undershoot, one of the most debated issues in fMRI. <i>NeuroImage</i> , 2012, 62, 1092-1102.	2.1	76
656	Neuronal inhibition and excitation, and the dichotomic control of brain hemodynamic and oxygen responses. <i>NeuroImage</i> , 2012, 62, 1040-1050.	2.1	130
657	A brief history of the resting state: The Washington University perspective. <i>NeuroImage</i> , 2012, 62, 902-910.	2.1	197
658	Quantitative imaging of energy expenditure in human brain. <i>NeuroImage</i> , 2012, 60, 2107-2117.	2.1	206

#	ARTICLE	IF	CITATIONS
659	Tonotopic-column-dependent variability of neural encoding in the auditory cortex of rats. <i>Neuroscience</i> , 2012, 223, 377-387.	1.1	8
660	Neurovascular saturation thresholds under high intensity auditory stimulation during wake. <i>Neuroscience</i> , 2012, 227, 191-200.	1.1	4
662	The Role of Astrocytic Glycogen in Supporting the Energetics of Neuronal Activity. <i>Neurochemical Research</i> , 2012, 37, 2432-2438.	1.6	76
663	Systems Biology of Parkinson's Disease. , 2012, , .		8
665	Brain Imaging in Behavioral Neuroscience. <i>Current Topics in Behavioral Neurosciences</i> , 2012, , .	0.8	3
666	A 24-Hour Temporal Profile of In Vivo Brain and Heart PET Imaging Reveals a Nocturnal Peak in Brain 18F-Fluorodeoxyglucose Uptake. <i>PLoS ONE</i> , 2012, 7, e31792.	1.1	11
667	Approximate Invariance of Metabolic Energy per Synapse during Development in Mammalian Brains. <i>PLoS ONE</i> , 2012, 7, e33425.	1.1	22
668	A Neuromorphic Architecture for Object Recognition and Motion Anticipation Using Burst-STDP. <i>PLoS ONE</i> , 2012, 7, e36958.	1.1	21
669	Extensive Fusion of Mitochondria in Spinal Cord Motor Neurons. <i>PLoS ONE</i> , 2012, 7, e38435.	1.1	8
670	The Energy Demand of Fast Neuronal Network Oscillations: Insights from Brain Slice Preparations. <i>Frontiers in Pharmacology</i> , 2011, 2, 90.	1.6	37
671	A new perspective on behavioral inconsistency and neural noise in aging: compensatory speeding of neural communication. <i>Frontiers in Aging Neuroscience</i> , 2012, 4, 27.	1.7	55
672	Communication and wiring in the cortical connectome. <i>Frontiers in Neuroanatomy</i> , 2012, 6, 42.	0.9	66
673	Monitoring extracellular pH, oxygen, and dopamine during reward delivery in the striatum of primates. <i>Frontiers in Behavioral Neuroscience</i> , 2012, 6, 36.	1.0	41
674	Surround suppression and sparse coding in visual and barrel cortices. <i>Frontiers in Neural Circuits</i> , 2012, 6, 43.	1.4	61
675	A Computational Model of Inferior Colliculus Responses to Amplitude Modulated Sounds in Young and Aged Rats. <i>Frontiers in Neural Circuits</i> , 2012, 6, 77.	1.4	35
676	Does Spike-Timing-Dependent Synaptic Plasticity Couple or Decouple Neurons Firing in Synchrony?. <i>Frontiers in Computational Neuroscience</i> , 2012, 6, 55.	1.2	46
677	Metabolic efficiency with fast spiking in the squid axon. <i>Frontiers in Computational Neuroscience</i> , 2012, 6, 95.	1.2	15
678	Energetics based spike generation of a single neuron: simulation results and analysis. <i>Frontiers in Neuroenergetics</i> , 2012, 5, 2.	5.3	6

#	ARTICLE	IF	CITATIONS
679	Octopaminergic modulation of contrast sensitivity. <i>Frontiers in Integrative Neuroscience</i> , 2012, 6, 55.	1.0	27
680	Brain Energy Metabolism in Health and Disease. , 0, , .		3
681	Human neuromaturation, juvenile extreme energy liability, and adult cognition/cooperation. <i>Nature Precedings</i> , 2012, , .	0.1	2
682	Role of Neuronal Mitochondrial Metabolic Phenotype in Pathogenesis of ALS. , 0, , .		2
683	Mathematically Modeling the Involvement of Axons in Leber's Hereditary Optic Neuropathy. , 2012, 53, 7608.		109
684	The "selfish brain" hypothesis for metabolic abnormalities in bipolar disorder and schizophrenia. <i>Trends in Psychiatry and Psychotherapy</i> , 2012, 34, 121-128.	0.4	12
685	Effect of transient blockade of <i>N-methyl-D-aspartate</i> receptors at neonatal stage on stress-induced lactate metabolism in the medial prefrontal cortex of adult rats: Role of $\text{5-HT}_1\text{A}$ receptor agonism. <i>Synapse</i> , 2012, 66, 408-417.	0.6	11
686	Mitochondrial transport in neurons: impact on synaptic homeostasis and neurodegeneration. <i>Nature Reviews Neuroscience</i> , 2012, 13, 77-93.	4.9	678
687	Selective Processes in Development: Implications for the Costs and Benefits of Phenotypic Plasticity. <i>Integrative and Comparative Biology</i> , 2012, 52, 31-42.	0.9	64
688	Alzheimer Disease: New Concepts on Its Neurobiology and the Clinical Role Imaging Will Play. <i>Radiology</i> , 2012, 263, 344-361.	3.6	192
689	Miniaturization of Nervous Systems and Neurons. <i>Current Biology</i> , 2012, 22, R323-R329.	1.8	88
690	The Energetics of CNS White Matter. <i>Journal of Neuroscience</i> , 2012, 32, 356-371.	1.7	387
691	The economy of brain network organization. <i>Nature Reviews Neuroscience</i> , 2012, 13, 336-349.	4.9	2,681
692	Proton MR Spectroscopy—Detectable Major Neurotransmitters of the Brain: Biology and Possible Clinical Applications. <i>American Journal of Neuroradiology</i> , 2012, 33, 595-602.	1.2	41
693	Activity-dependent energy budget for neocortical signaling: Effect of short-term synaptic plasticity on the energy expended by spiking and synaptic activity. <i>Journal of Neuroscience Research</i> , 2012, 90, 2094-2102.	1.3	14
694	Convergence of human brain mapping tools: Neuronavigated TMS Parameters and fMRI activity in the hand motor area. <i>Human Brain Mapping</i> , 2012, 33, 1107-1123.	1.9	56
695	AMPK: a nutrient and energy sensor that maintains energy homeostasis. <i>Nature Reviews Molecular Cell Biology</i> , 2012, 13, 251-262.	16.1	3,463
696	Control of Sleep and Wakefulness. <i>Physiological Reviews</i> , 2012, 92, 1087-1187.	13.1	1,089

#	ARTICLE	IF	CITATIONS
697	Bigenomic Regulation of Cytochrome c Oxidase in Neurons and the Tight Coupling Between Neuronal Activity and Energy Metabolism. <i>Advances in Experimental Medicine and Biology</i> , 2012, 748, 283-304.	0.8	68
698	Mitochondrial CB1 receptors regulate neuronal energy metabolism. <i>Nature Neuroscience</i> , 2012, 15, 558-564.	7.1	450
699	The role of inflammatory processes in Alzheimer's disease. <i>Inflammopharmacology</i> , 2012, 20, 109-126.	1.9	61
700	Realignment of signal processing within a sensory brainstem nucleus as brain temperature declines in the Syrian hamster, a hibernating species. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2012, 198, 267-282.	0.7	9
701	Glial cells in (patho)physiology. <i>Journal of Neurochemistry</i> , 2012, 121, 4-27.	2.1	460
702	Approximate information capacity of the perfect integrate-and-fire neuron using the temporal code. <i>Brain Research</i> , 2012, 1434, 136-141.	1.1	9
703	Allostasis: A model of predictive regulation. <i>Physiology and Behavior</i> , 2012, 106, 5-15.	1.0	617
704	Modulation of sensory-motor integration as a general mechanism for context dependence of behavior. <i>General and Comparative Endocrinology</i> , 2012, 176, 465-471.	0.8	18
705	Oxygen dynamics during in vitro seizures. <i>BMC Neuroscience</i> , 2012, 13, .	0.8	0
706	Temperature-fastened sodium inactivation accounts for energy efficient cortical action potentials in mammalian brains. <i>BMC Neuroscience</i> , 2012, 13, .	0.8	0
707	Depression of cortical activity in humans by mild hypercapnia. <i>Human Brain Mapping</i> , 2012, 33, 715-726.	1.9	48
708	A metabolic-transcriptional network links sleep and cellular energetics in the brain. <i>Pflügers Archiv European Journal of Physiology</i> , 2012, 463, 15-22.	1.3	11
709	Changes in cerebral oxidative metabolism in patients with acute liver failure. <i>Metabolic Brain Disease</i> , 2013, 28, 179-182.	1.4	5
710	Dynamics of the Gamma-Band Power of Evoked Responses to a Facial Expression in Conditions of Loading on Working Memory. <i>Neuroscience and Behavioral Physiology</i> , 2013, 43, 280-289.	0.2	2
712	Spikes and ribbon synapses in early vision. <i>Trends in Neurosciences</i> , 2013, 36, 480-488.	4.2	56
713	Neuronal damage and cognitive impairment associated with hypoglycemia: An integrated view. <i>Neurochemistry International</i> , 2013, 63, 331-343.	1.9	97
714	Prolonged wakefulness alters neuronal responsiveness to local electrical stimulation of the neocortex in awake rats. <i>Journal of Sleep Research</i> , 2013, 22, 239-250.	1.7	42
715	Glutamatergic and GABAergic TCA Cycle and Neurotransmitter Cycling Fluxes in Different Regions of Mouse Brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 1523-1531.	2.4	53

#	ARTICLE	IF	CITATIONS
716	A single compartment model of pacemaking in dissociated Substantia nigra neurons. <i>Journal of Computational Neuroscience</i> , 2013, 35, 295-316.	0.6	10
717	Neurovascular coupling: in vivo optical techniques for functional brain imaging. <i>BioMedical Engineering OnLine</i> , 2013, 12, 38.	1.3	95
718	Spike-Timing-Dependent Plasticity Using Biologically Realistic Action Potentials and Low-Temperature Materials. <i>IEEE Nanotechnology Magazine</i> , 2013, 12, 450-459.	1.1	28
719	Why does Brain Metabolism not Favor Burning of Fatty Acids to Provide Energy? - Reflections on Disadvantages of the Use of Free Fatty Acids as Fuel for Brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 1493-1499.	2.4	325
720	The High Energy Demand of Neuronal Cells Caused by Passive Leak Currents is Not a Waste of Energy. <i>Cell Biochemistry and Biophysics</i> , 2013, 67, 527-535.	0.9	15
721	Negative BOLD Response to Interictal Epileptic Discharges in Focal Epilepsy. <i>Brain Topography</i> , 2013, 26, 627-640.	0.8	37
722	Energy-efficient encoding by shifting spikes in neocortical neurons. <i>European Journal of Neuroscience</i> , 2013, 38, 3181-3188.	1.2	10
723	Integration of Multivariate Data Streams With Bandpower Signals. <i>IEEE Transactions on Multimedia</i> , 2013, 15, 1001-1013.	5.2	31
724	Calcium-Regulation of Mitochondrial Respiration Maintains ATP Homeostasis and Requires ARALAR/AGC1-Malate Aspartate Shuttle in Intact Cortical Neurons. <i>Journal of Neuroscience</i> , 2013, 33, 13957-13971.	1.7	99
725	The Virtual Brain Integrates Computational Modeling and Multimodal Neuroimaging. <i>Brain Connectivity</i> , 2013, 3, 121-145.	0.8	218
726	Tricarboxylic acid cycle-sustained oxidative phosphorylation in isolated myelin vesicles. <i>Biochimie</i> , 2013, 95, 1991-1998.	1.3	43
727	Developmental changes of the protein repertoire in the rat auditory brainstem: A comparative proteomics approach in the superior olivary complex and the inferior colliculus with DIGE and iTRAQ. <i>Journal of Proteomics</i> , 2013, 79, 43-59.	1.2	10
728	Transmission efficiency in ring, brain inspired neuronal networks. Information and energetic aspects. <i>Brain Research</i> , 2013, 1536, 135-143.	1.1	4
729	Dissipation of "dark energy"™ by cortex in knowledge retrieval. <i>Physics of Life Reviews</i> , 2013, 10, 85-94.	1.5	46
730	Emerging Biomarkers in Cognition. <i>Clinics in Geriatric Medicine</i> , 2013, 29, 809-828.	1.0	13
732	A sodium-activated potassium channel supports high-frequency firing and reduces energetic costs during rapid modulations of action potential amplitude. <i>Journal of Neurophysiology</i> , 2013, 109, 1713-1723.	0.9	42
733	Selfish brain and neuroprogression in bipolar disorder. <i>Progress in Neuro-Psychopharmacology and Biological Psychiatry</i> , 2013, 43, 66-71.	2.5	22
734	Glial influence on the blood brain barrier. <i>Glia</i> , 2013, 61, 1939-1958.	2.5	424

#	ARTICLE	IF	CITATIONS
735	Mitochondrial Dynamics Controlled by Mitofusins Regulate Agrp Neuronal Activity and Diet-Induced Obesity. <i>Cell</i> , 2013, 155, 188-199.	13.5	249
736	Structural foundations of resting-state and task-based functional connectivity in the human brain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 6169-6174.	3.3	492
737	The ketogenic diet: metabolic influences on brain excitability and epilepsy. <i>Trends in Neurosciences</i> , 2013, 36, 32-40.	4.2	271
738	What can neurons do for their brain? Communicate selectivity with bursts. <i>Theory in Biosciences</i> , 2013, 132, 27-39.	0.6	20
739	A Specific and Essential Role for Na,K-ATPase $\hat{1}\pm 3$ in Neurons Co-expressing $\hat{1}\pm 1$ and $\hat{1}\pm 3$. <i>Journal of Biological Chemistry</i> , 2013, 288, 2734-2743.	1.6	105
740	Population-wide distributions of neural activity during perceptual decision-making. <i>Progress in Neurobiology</i> , 2013, 103, 156-193.	2.8	71
741	The BOLD signal and neurovascular coupling in autism. <i>Developmental Cognitive Neuroscience</i> , 2013, 6, 72-79.	1.9	28
742	Lack of resveratrol neuroprotection in developing rats treated with kainic acid. <i>Neuroscience</i> , 2013, 230, 39-49.	1.1	16
743	A comparative analysis of models of Na ⁺ channel gating for mammalian and invertebrate nonmyelinated axons: Relationship to energy efficient action potentials. <i>Progress in Biophysics and Molecular Biology</i> , 2013, 111, 1-7.	1.4	4
744	Glutamate-AMPA interaction in a model of synaptic transmission. <i>Brain Research</i> , 2013, 1536, 168-176.	1.1	12
745	A receptor-based model for dopamine-induced fMRI signal. <i>NeuroImage</i> , 2013, 75, 46-57.	2.1	57
746	Information capacity and its approximations under metabolic cost in a simple homogeneous population of neurons. <i>BioSystems</i> , 2013, 112, 265-275.	0.9	13
747	The interrelations between malfunctioning DNA damage response (DDR) and the functionality of the neuro-glio-vascular unit. <i>DNA Repair</i> , 2013, 12, 543-557.	1.3	11
748	Statistical Mechanics of Monod-Wyman-Changeux (MWC) Models. <i>Journal of Molecular Biology</i> , 2013, 425, 1433-1460.	2.0	85
749	Synaptic Vesicle Exocytosis in Hippocampal Synaptosomes Correlates Directly with Total Mitochondrial Volume. <i>Journal of Molecular Neuroscience</i> , 2013, 49, 223-230.	1.1	87
750	Sleep/wake dependent changes in cortical glucose concentrations. <i>Journal of Neurochemistry</i> , 2013, 124, 79-89.	2.1	39
751	An overview of the evolutionary causes and consequences of behavioural plasticity. <i>Animal Behaviour</i> , 2013, 85, 1004-1011.	0.8	533
752	Downregulation of the Expression of Mitochondrial Electron Transport Complex Genes in Autism Brains. <i>Brain Pathology</i> , 2013, 23, 294-302.	2.1	85

#	ARTICLE	IF	CITATIONS
753	The interplay of neuronal mitochondrial dynamics and bioenergetics: Implications for Parkinson's disease. <i>Neurobiology of Disease</i> , 2013, 51, 43-55.	2.1	112
754	Glutamatergic Function in the Resting Awake Human Brain is Supported by Uniformly High Oxidative Energy. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 339-347.	2.4	101
755	Resting-state fMRI confounds and cleanup. <i>NeuroImage</i> , 2013, 80, 349-359.	2.1	598
756	Oxidative/nitrosative stress and antidepressants: Targets for novel antidepressants. <i>Progress in Neuro-Psychopharmacology and Biological Psychiatry</i> , 2013, 46, 224-235.	2.5	124
757	A behavioral neuroenergetics theory of ADHD. <i>Neuroscience and Biobehavioral Reviews</i> , 2013, 37, 625-657.	2.9	73
758	Adenosine and Energy Metabolism Relationship to Brain Bioenergetics. , 2013, , 55-70.		2
759	Metabolic signaling by lactate in the brain. <i>Trends in Neurosciences</i> , 2013, 36, 396-404.	4.2	271
760	Cell signaling and mitochondrial dynamics: Implications for neuronal function and neurodegenerative disease. <i>Neurobiology of Disease</i> , 2013, 51, 13-26.	2.1	63
761	Effects of Digesting Chondroitin Sulfate Proteoglycans on Plasticity in Cat Primary Visual Cortex. <i>Journal of Neuroscience</i> , 2013, 33, 234-243.	1.7	47
762	Dissociated Expression of Mitochondrial and Cytosolic Creatine Kinases in the Human Brain: A New Perspective on the Role of Creatine in Brain Energy Metabolism. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 1295-1306.	2.4	42
763	The cortical angiome: an interconnected vascular network with noncolumnar patterns of blood flow. <i>Nature Neuroscience</i> , 2013, 16, 889-897.	7.1	471
764	Mechanisms underlying synaptic vulnerability and degeneration in neurodegenerative disease. <i>Neuropathology and Applied Neurobiology</i> , 2013, 39, 320-334.	1.8	58
765	A Spiking Neural Model for Stable Reinforcement of Synapses Based on Multiple Distal Rewards. <i>Neural Computation</i> , 2013, 25, 123-156.	1.3	10
766	Metabolic cost of neuronal information in an empirical stimulus-response model. <i>Biological Cybernetics</i> , 2013, 107, 355-365.	0.6	25
767	Effects of hypoglycaemia on neuronal metabolism in the adult brain: role of alternative substrates to glucose. <i>Journal of Inherited Metabolic Disease</i> , 2013, 36, 621-634.	1.7	44
768	The energetics of electric organ discharge generation in gymnotiform weakly electric fish. <i>Journal of Experimental Biology</i> , 2013, 216, 2459-2468.	0.8	57
769	Temporal Processing in the Olfactory System: Can We See a Smell?. <i>Neuron</i> , 2013, 78, 416-432.	3.8	101
770	Astrocyte Neuron Communications. , 2013, , 31-64.		5

#	ARTICLE	IF	CITATIONS
771	The role of aberrant mitochondrial bioenergetics in diabetic neuropathy. <i>Neurobiology of Disease</i> , 2013, 51, 56-65.	2.1	137
772	Temporal whitening by power-law adaptation in neocortical neurons. <i>Nature Neuroscience</i> , 2013, 16, 942-948.	7.1	164
773	Exploring the life cycle of mitochondria in neuropsychiatric diseases: Mitochondrial dynamics and quality control. <i>Neurobiology of Disease</i> , 2013, 51, 1-2.	2.1	5
774	Creatine kinase and ATP synthase reaction rates in human frontal lobe measured by ³¹ P magnetization transfer spectroscopy at 4T. <i>Magnetic Resonance Imaging</i> , 2013, 31, 102-108.	1.0	22
775	A Linear/Nonlinear Characterization of Resting State Brain Networks in fMRI Time Series. <i>Brain Topography</i> , 2013, 26, 39-49.	0.8	16
776	Understanding, consciousness and thermodynamics of cognition. <i>Chaos, Solitons and Fractals</i> , 2013, 55, 44-59.	2.5	23
777	The physics of functional magnetic resonance imaging (fMRI). <i>Reports on Progress in Physics</i> , 2013, 76, 096601.	8.1	165
778	Protecting White Matter From Stroke Injury. <i>Stroke</i> , 2013, 44, 1204-1211.	1.0	83
779	Sources of Variability of Resting Cerebral Blood Flow in Healthy Subjects: A Study Using ¹³³ Xe SPECT Measurements. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 787-792.	2.4	31
780	Balanced Excitatory and Inhibitory Synaptic Currents Promote Efficient Coding and Metabolic Efficiency. <i>PLoS Computational Biology</i> , 2013, 9, e1003263.	1.5	77
781	Root Apex Transition Zone As Oscillatory Zone. <i>Frontiers in Plant Science</i> , 2013, 4, 354.	1.7	108
782	Sharpness of Spike Initiation in Neurons Explained by Compartmentalization. <i>PLoS Computational Biology</i> , 2013, 9, e1003338.	1.5	61
783	Dopaminergic expression of the Parkinsonian gene LRRK2-G2019S leads to non-autonomous visual neurodegeneration, accelerated by increased neural demands for energy. <i>Human Molecular Genetics</i> , 2013, 22, 2129-2140.	1.4	61
784	Quantitative in silico Analysis of Neurotransmitter Pathways Under Steady State Conditions. <i>Frontiers in Endocrinology</i> , 2013, 4, 137.	1.5	22
785	Amodal Processing in Human Prefrontal Cortex. <i>Journal of Neuroscience</i> , 2013, 33, 11573-11587.	1.7	43
786	An Early Underwater Artificial Vision Model in Ocean Investigations via Independent Component Analysis. <i>Sensors</i> , 2013, 13, 9104-9131.	2.1	11
787	A role for bioenergetic abnormalities in the pathophysiology of schizophrenia. <i>Journal of Microbiology and Biotechnology</i> , 2013, 23, 289-293.	0.9	0
788	Information and Efficiency in the Nervous System—A Synthesis. <i>PLoS Computational Biology</i> , 2013, 9, e1003157.	1.5	163

#	ARTICLE	IF	CITATIONS
789	Sparse Coding Can Predict Primary Visual Cortex Receptive Field Changes Induced by Abnormal Visual Input. <i>PLoS Computational Biology</i> , 2013, 9, e1003005.	1.5	32
790	Cortical energy demands of signaling and nonsignaling components in brain are conserved across mammalian species and activity levels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 3549-3554.	3.3	204
791	Dendritic growth gated by a steroid hormone receptor underlies increases in activity in the developing <i>Drosophila</i> locomotor system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E3878-87.	3.3	33
792	Sleep Slow-Wave Activity Regulates Cerebral Glycolytic Metabolism. <i>Cerebral Cortex</i> , 2013, 23, 1978-1987.	1.6	57
793	Role of NAD ⁺ , Oxidative Stress, and Tryptophan Metabolism in Autism Spectrum Disorders. <i>International Journal of Tryptophan Research</i> , 2013, 6s1, IJTR.S11355.	1.0	25
794	Sleep-Dependent Synaptic Down-Selection (I): Modeling the Benefits of Sleep on Memory Consolidation and Integration. <i>Frontiers in Neurology</i> , 2013, 4, 143.	1.1	64
795	Calmodulin and calmodulin kinase II mediate emergent bursting activity in the brainstem respiratory network (preBötzing complex). <i>Journal of Physiology</i> , 2013, 591, 1613-1630.	1.3	25
796	Glycogen function in adult central and peripheral nerves. <i>Journal of Neuroscience Research</i> , 2013, 91, 1044-1049.	1.3	22
797	The Effect of Cell Size and Channel Density on Neuronal Information Encoding and Energy Efficiency. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 1465-1473.	2.4	80
798	Information theoretic analysis of energy efficient neurons with biologically plausible constraints. , 2013, , .		0
799	Low-Temperature Fabrication of Spiking Soma Circuits Using Nanocrystalline-Silicon TFTs. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2013, 24, 1466-1472.	7.2	2
800	Single KATP channel opening in response to stimulation of AMPA/kainate receptors is mediated by Na ⁺ accumulation and submembrane ATP and ADP changes. <i>Journal of Physiology</i> , 2013, 591, 2593-2609.	1.3	18
801	Energy efficient neurons with generalized inverse Gaussian conditional and marginal hitting times. , 2013, , .		4
802	Is Spreading Depolarization Characterized by an Abrupt, Massive Release of Gibbs Free Energy from the Human Brain Cortex?. <i>Neuroscientist</i> , 2013, 19, 25-42.	2.6	74
803	ENERGY-EFFICIENT THRESHOLD CIRCUITS COMPUTING MOD FUNCTIONS. <i>International Journal of Foundations of Computer Science</i> , 2013, 24, 15-29.	0.8	4
804	Beliefs about willpower determine the impact of glucose on self-control. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 14837-14842.	3.3	105
805	Energetic cost of brain functional connectivity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 13642-13647.	3.3	445
806	METABOLIC COST AS AN ORGANIZING PRINCIPLE FOR COOPERATIVE LEARNING. <i>International Journal of Modeling, Simulation, and Scientific Computing</i> , 2013, 16, 1350012.	0.9	3

#	ARTICLE	IF	CITATIONS
807	Effects of Treadmill Training on Limb Motor Function and Acetylcholinesterase Activity in Rats with Stroke. <i>Journal of Physical Therapy Science</i> , 2013, 25, 1227-1230.	0.2	14
808	Unraveling the complex metabolic nature of astrocytes. <i>Frontiers in Cellular Neuroscience</i> , 2013, 7, 179.	1.8	114
809	BOLD responses in human V1 to local structure in natural scenes: Implications for theories of visual coding. <i>Journal of Vision</i> , 2013, 13, 19-19.	0.1	13
810	Carbohydrate Metabolism in the Central Nervous System. , 2013, , 368-373.		0
812	PET and fMRI. , 0, , 133-153.		4
813	The energy cost of action potential propagation in dopamine neurons: clues to susceptibility in Parkinson's disease. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 13.	1.2	264
814	Neural circuits for peristaltic wave propagation in crawling <i>Drosophila</i> larvae: analysis and modeling. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 24.	1.2	54
815	Stability constraints on large-scale structural brain networks. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 31.	1.2	16
816	Astrocytic and neuronal accumulation of elevated extracellular K ⁺ with a 2/3 K ⁺ /Na ⁺ flux ratio—consequences for energy metabolism, osmolarity and higher brain function. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 114.	1.2	49
817	Neurophysiological, metabolic and cellular compartments that drive neurovascular coupling and neuroimaging signals. <i>Frontiers in Neuroenergetics</i> , 2013, 5, 3.	5.3	19
818	Network architecture underlying maximal separation of neuronal representations. <i>Frontiers in Neuroengineering</i> , 2012, 5, 19.	4.8	10
819	The blood-brain barrier: an engineering perspective. <i>Frontiers in Neuroengineering</i> , 2013, 6, 7.	4.8	458
820	Sleep-Dependent Synaptic Down-Selection (II): Single-Neuron Level Benefits for Matching, Selectivity, and Specificity. <i>Frontiers in Neurology</i> , 2013, 4, 148.	1.1	27
821	Synaptic Activity and Bioenergy Homeostasis: Implications in Brain Trauma and Neurodegenerative Diseases. <i>Frontiers in Neurology</i> , 2013, 4, 199.	1.1	75
822	Is Sleep Essential for Neural Plasticity in Humans, and How Does It Affect Motor and Cognitive Recovery?. <i>Neural Plasticity</i> , 2013, 2013, 1-13.	1.0	49
823	Reevaluating Metabolism in Alzheimer's Disease from the Perspective of the Astrocyte-Neuron Lactate Shuttle Model. <i>Journal of Neurodegenerative Diseases</i> , 2013, 2013, 1-13.	1.1	48
824	Reduction in Neural Performance following Recovery from Anoxic Stress Is Mimicked by AMPK Pathway Activation. <i>PLoS ONE</i> , 2014, 9, e88570.	1.1	15
825	Spatial Dependencies between Large-Scale Brain Networks. <i>PLoS ONE</i> , 2014, 9, e98500.	1.1	23

#	ARTICLE	IF	CITATIONS
826	Morphological and bioenergetic demands underlying the mitophagy in post-mitotic neurons: the parkin pathway. <i>Frontiers in Aging Neuroscience</i> , 2014, 6, 18.	1.7	62
827	Constancy and trade-offs in the neuroanatomical and metabolic design of the cerebral cortex. <i>Frontiers in Neural Circuits</i> , 2014, 8, 9.	1.4	34
828	Differing effects of attention in single-units and populations are well predicted by heterogeneous tuning and the normalization model of attention. <i>Frontiers in Computational Neuroscience</i> , 2014, 8, 12.	1.2	35
829	Energy demands of diverse spiking cells from the neocortex, hippocampus, and thalamus. <i>Frontiers in Computational Neuroscience</i> , 2014, 8, 41.	1.2	24
830	The meaning of spikes from the neuron's point of view: predictive homeostasis generates the appearance of randomness. <i>Frontiers in Computational Neuroscience</i> , 2014, 8, 49.	1.2	17
831	Variability of the coupling of blood flow and oxygen metabolism responses in the brain: a problem for interpreting BOLD studies but potentially a new window on the underlying neural activity. <i>Frontiers in Neuroscience</i> , 2014, 8, 139.	1.4	53
832	Contributions and complexities from the use of in vivo animal models to improve understanding of human neuroimaging signals. <i>Frontiers in Neuroscience</i> , 2014, 8, 211.	1.4	37
833	Does functional MRI detect activation in white matter? A review of emerging evidence, issues, and future directions. <i>Frontiers in Neuroscience</i> , 2014, 8, 239.	1.4	193
834	Enhanced synaptic transmission at the squid giant synapse by artificial seawater based on physically modified saline. <i>Frontiers in Synaptic Neuroscience</i> , 2014, 6, 2.	1.3	15
835	A unifying theory of synaptic long-term plasticity based on a sparse distribution of synaptic strength. <i>Frontiers in Synaptic Neuroscience</i> , 2014, 6, 3.	1.3	8
836	Critical role for resource constraints in neural models. <i>Frontiers in Systems Neuroscience</i> , 2014, 8, 154.	1.2	24
837	Advantages and Disadvantages of Resting State Functional Connectivity Magnetic Resonance Imaging for Clinical Applications. <i>OMICS Journal of Radiology</i> , 2014, 3, .	0.0	5
838	Glutamate Excitotoxicity and Neurodegeneration. <i>Journal of Molecular and Genetic Medicine: an International Journal of Biomedical Research</i> , 2014, 08, .	0.1	16
840	Analog synthetic biology. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130110.	1.6	86
841	Large arteriolar component of oxygen delivery implies a safe margin of oxygen supply to cerebral tissue. <i>Nature Communications</i> , 2014, 5, 5734.	5.8	165
842	Speech-Specific Tuning of Neurons in Human Superior Temporal Gyrus. <i>Cerebral Cortex</i> , 2014, 24, 2679-2693.	1.6	121
843	Carbon (¹³ C) MRS. , 2014, , 312-330.		0
844	Quantitative Metabolic Magnetic Resonance Imaging of Sodium, Oxygen, Phosphorus and Potassium in the Human Brain. , 2014, , 291-311.		2

#	ARTICLE	IF	CITATIONS
845	Magnetic Resonance Spectroscopy in Neuroenergetics and Neurotransmission. , 2014, , 274-288.		0
847	Depression, Diabetes and Dementia. Key Issues in Mental Health, 2015, , 42-53.	0.6	1
848	The sodium-potassium pump is an information processing element in brain computation. Frontiers in Physiology, 2014, 5, 472.	1.3	49
849	Glucose hypometabolism is highly localized, but lower cortical thickness and brain atrophy are widespread in cognitively normal older adults. American Journal of Physiology - Endocrinology and Metabolism, 2014, 306, E1315-E1321.	1.8	43
850	Protein markers of cerebrovascular disruption of neurovascular unit: immunohistochemical and imaging approaches. Reviews in the Neurosciences, 2014, 25, 481-507.	1.4	27
851	Resolving Structural Variability in Network Models and the Brain. PLoS Computational Biology, 2014, 10, e1003491.	1.5	85
852	Network Imaging. , 2014, , 77-89.		2
853	Is Verbal Episodic Memory in Elderly with Amyloid Deposits Preserved Through Altered Neuronal Function?. Cerebral Cortex, 2014, 24, 2210-2218.	1.6	36
854	Glutamate Metabolism in the Brain Focusing on Astrocytes. Advances in Neurobiology, 2014, 11, 13-30.	1.3	274
855	Consequences of Converting Graded to Action Potentials upon Neural Information Coding and Energy Efficiency. PLoS Computational Biology, 2014, 10, e1003439.	1.5	41
856	Fatty Acids in Energy Metabolism of the Central Nervous System. BioMed Research International, 2014, 2014, 1-22.	0.9	132
857	Ising-like model for neural representation of natural images. , 2014, , .		1
858	The Biochemistry of Creatine. , 2014, , 91-103.		9
859	Resource Allocation in the Brain. Review of Economic Studies, 2014, 81, 501-534.	2.9	44
860	The Myth of Cognitive Decline: Non-Linear Dynamics of Lifelong Learning. Topics in Cognitive Science, 2014, 6, 5-42.	1.1	235
861	Mesoscale Transcranial Spontaneous Activity Mapping in GCaMP3 Transgenic Mice Reveals Extensive Reciprocal Connections between Areas of Somatomotor Cortex. Journal of Neuroscience, 2014, 34, 15931-15946.	1.7	155
862	The cellular composition of the marsupial neocortex. Journal of Comparative Neurology, 2014, 522, 2286-2298.	0.9	13
863	Neural ECM and synaptogenesis. Progress in Brain Research, 2014, 214, 29-51.	0.9	41

#	ARTICLE	IF	CITATIONS
864	Improved automatic speech recognition system using sparse decomposition by basis pursuit with deep rectifier neural networks and compressed sensing recombination of speech signals. , 2014, , .		6
865	Switching neuronal state: optimal stimuli revealed using a stochastically-seeded gradient algorithm. Journal of Computational Neuroscience, 2014, 37, 569-582.	0.6	11
866	Seizure Termination. International Review of Neurobiology, 2014, 114, 187-207.	0.9	24
867	Modulation of GABAergic transmission in development and neurodevelopmental disorders: investigating physiology and pathology to gain therapeutic perspectives. Frontiers in Cellular Neuroscience, 2014, 8, 119.	1.8	151
868	Stochastic geometric network models for groups of functional and structural connectomes. NeuroImage, 2014, 101, 473-484.	2.1	16
869	Fusing Concurrent EEG and fMRI Intrinsic Networks. , 2014, , 213-235.		4
870	Age-related increase of resting metabolic rate in the human brain. NeuroImage, 2014, 98, 176-183.	2.1	89
871	Direct evidence for activity-dependent glucose phosphorylation in neurons with implications for the astrocyte-to-neuron lactate shuttle. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5385-5390.	3.3	160
872	On-Site Energy Supply at Synapses through Monocarboxylate Transporters Maintains Excitatory Synaptic Transmission. Journal of Neuroscience, 2014, 34, 2605-2617.	1.7	55
873	Flow Sensing in Air and Water. , 2014, , .		28
874	The Odyssey of a Young Gene: Structureâ€“Function Studies in Human Glutamate Dehydrogenases Reveal Evolutionary-Acquired Complex Allosteric Regulation Mechanisms. Neurochemical Research, 2014, 39, 471-486.	1.6	16
875	Aerobic glycolysis in the primate brain: reconsidering the implications for growth and maintenance. Brain Structure and Function, 2014, 219, 1149-1167.	1.2	84
876	Mitochondrial dysfunction as a central actor in intellectual disability-related diseases: An overview of Down syndrome, autism, Fragile X and Rett syndrome. Neuroscience and Biobehavioral Reviews, 2014, 46, 202-217.	2.9	151
877	Power Consumption During Neuronal Computation. Proceedings of the IEEE, 2014, 102, 738-750.	16.4	65
878	Stochastic Electronics: A Neuro-Inspired Design Paradigm for Integrated Circuits. Proceedings of the IEEE, 2014, 102, 843-859.	16.4	59
879	Oxygen Transport to Tissue XXXVI. Advances in Experimental Medicine and Biology, 2014, , .	0.8	5
880	Action Potential Energetics at the Organismal Level Reveal a Trade-Off in Efficiency at High Firing Rates. Journal of Neuroscience, 2014, 34, 197-201.	1.7	44
881	The glia/neuron ratio: How it varies uniformly across brain structures and species and what that means for brain physiology and evolution. Glia, 2014, 62, 1377-1391.	2.5	461

#	ARTICLE	IF	CITATIONS
882	Mitochondria: a multimodal hub of hypoxia tolerance. <i>Canadian Journal of Zoology</i> , 2014, 92, 569-589.	0.4	63
883	How to deal with oxygen radicals stemming from mitochondrial fatty acid oxidation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130446.	1.8	44
884	Non-preferential fuelling of the Na ⁺ /K ⁺ -ATPase pump. <i>Biochemical Journal</i> , 2014, 460, 353-361.	1.7	36
885	3D BrainCV: Simultaneous visualization and analysis of cells and capillaries in a whole mouse brain with one-micron voxel resolution. <i>NeuroImage</i> , 2014, 87, 199-208.	2.1	108
886	The Oxygen Paradox of Neurovascular Coupling. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2014, 34, 19-29.	2.4	112
887	Metabolic differences in hippocampal α -Retn TM neurons revealed by ATP imaging. <i>Molecular and Cellular Neurosciences</i> , 2014, 59, 47-56.	1.0	47
888	Higher Transport and Metabolism of Glucose in Astrocytes Compared with Neurons: A Multiphoton Study of Hippocampal and Cerebellar Tissue Slices. <i>Cerebral Cortex</i> , 2014, 24, 222-231.	1.6	91
889	Flies, Optic Flow and Multisensory Stabilization Reflexes. , 2014, , 215-243.		4
890	Mitochondrial respiration as a target for neuroprotection and cognitive enhancement. <i>Biochemical Pharmacology</i> , 2014, 88, 584-593.	2.0	92
891	Aerobic Glycolysis in the Human Brain Is Associated with Development and Neotenus Gene Expression. <i>Cell Metabolism</i> , 2014, 19, 49-57.	7.2	305
892	Mitochondrial reactive oxygen species regulate the strength of inhibitory GABA-mediated synaptic transmission. <i>Nature Communications</i> , 2014, 5, 3168.	5.8	62
893	Contextual modulation and stimulus selectivity in extrastriate cortex. <i>Vision Research</i> , 2014, 104, 36-46.	0.7	21
894	Does metabolic failure at the synapse cause Alzheimer's disease?. <i>Medical Hypotheses</i> , 2014, 83, 802-808.	0.8	10
895	Resting-State Blood Oxygen Level-Dependent Functional Magnetic Resonance Imaging for Presurgical Planning. <i>Neuroimaging Clinics of North America</i> , 2014, 24, 655-669.	0.5	14
896	Optimal size of stochastic Hodgkin-Huxley neuronal systems for maximal energy efficiency in coding pulse signals. <i>Physical Review E</i> , 2014, 89, 032725.	0.8	22
897	Modulation of brain plasticity in stroke: a novel model for neurorehabilitation. <i>Nature Reviews Neurology</i> , 2014, 10, 597-608.	4.9	644
898	Unification of Neuronal Spikes, Seizures, and Spreading Depression. <i>Journal of Neuroscience</i> , 2014, 34, 11733-11743.	1.7	183
899	Quantitative assessment of global cerebral metabolic rate of oxygen (CMRO ₂) in neonates using MRI. <i>NMR in Biomedicine</i> , 2014, 27, 332-340.	1.6	70

#	ARTICLE	IF	CITATIONS
900	Highly Energized Inhibitory Interneurons are a Central Element for Information Processing in Cortical Networks. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2014, 34, 1270-1282.	2.4	219
901	A genetic perspective on glucose consumption in the cerebral cortex during human development. <i>Diabetes, Obesity and Metabolism</i> , 2014, 16, 21-25.	2.2	17
902	Non-invasive assessment of neonatal brain oxygen metabolism: A review of newly available techniques. <i>Early Human Development</i> , 2014, 90, 695-701.	0.8	17
903	The appropriation of glucose through primate neurodevelopment. <i>Journal of Human Evolution</i> , 2014, 77, 132-140.	1.3	24
904	Resting state alpha frequency is associated with menstrual cycle phase, estradiol and use of oral contraceptives. <i>Brain Research</i> , 2014, 1577, 36-44.	1.1	66
905	Motor and memory function in rat models of cyanide toxicity and vascular occlusion induced ischemic injury. <i>Pathophysiology</i> , 2014, 21, 191-198.	1.0	6
906	Role of astrocytic glycolytic metabolism in Alzheimer's disease pathogenesis. <i>Biogerontology</i> , 2014, 15, 579-586.	2.0	23
907	Clinicopathologic assessment and imaging of tauopathies in neurodegenerative dementias. <i>Alzheimer's Research and Therapy</i> , 2014, 6, 1.	3.0	156
908	Iron and mechanisms of emotional behavior. <i>Journal of Nutritional Biochemistry</i> , 2014, 25, 1101-1107.	1.9	191
909	Analysing neurobiological models using communicating automata. <i>Formal Aspects of Computing</i> , 2014, 26, 1169-1204.	1.4	6
910	The molecular dynamics of neural metabolism during the action potential. <i>Science China Technological Sciences</i> , 2014, 57, 857-863.	2.0	21
911	Diabetes Mellitus and Disturbances in Brain Connectivity: A Bidirectional Relationship?. <i>NeuroMolecular Medicine</i> , 2014, 16, 658-668.	1.8	25
912	γ -Aminobutyric Acid (GABA) Concentration Inversely Correlates with Basal Perfusion in Human Occipital Lobe. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2014, 34, 532-541.	2.4	9
913	Network Structure within the Cerebellar Input Layer Enables Lossless Sparse Encoding. <i>Neuron</i> , 2014, 83, 960-974.	3.8	135
914	Imaging pericytes and capillary diameter in brain slices and isolated retinae. <i>Nature Protocols</i> , 2014, 9, 323-336.	5.5	98
915	Determination of effective brain connectivity from functional connectivity with application to resting state connectivities. <i>Physical Review E</i> , 2014, 90, 012707.	0.8	48
916	The rhythm of retinoids in the brain. <i>Journal of Neurochemistry</i> , 2014, 129, 366-376.	2.1	60
917	Dietary restriction in cerebral bioenergetics and redox state. <i>Redox Biology</i> , 2014, 2, 296-304.	3.9	41

#	ARTICLE	IF	CITATIONS
918	Parallel evolution of <i>IDH2</i> gene in cetaceans, primates and bats. <i>FEBS Letters</i> , 2014, 588, 450-454.	1.3	3
919	Tissue-type plasminogen activator mediates neuroglial coupling in the central nervous system. <i>Neuroscience</i> , 2014, 257, 41-48.	1.1	39
920	Chronic stress modulates regional cerebral glucose transporter expression in an age-specific and sexually-dimorphic manner. <i>Physiology and Behavior</i> , 2014, 126, 39-49.	1.0	24
921	The relationship between MEG and fMRI. <i>NeuroImage</i> , 2014, 102, 80-91.	2.1	124
922	Mild hypoxia affects synaptic connectivity in cultured neuronal networks. <i>Brain Research</i> , 2014, 1557, 180-189.	1.1	43
923	Mitochondrial trafficking and anchoring in neurons: New insight and implications. <i>Journal of Cell Biology</i> , 2014, 204, 1087-1098.	2.3	327
924	Insect Neurobiology: How Small Brains Perform Complex Tasks. <i>Current Biology</i> , 2014, 24, R528-R529.	1.8	5
925	Epilepsy, energy deficiency and new therapeutic approaches including diet. , 2014, 144, 192-201.		35
926	Gray Matter-Specific Changes in Brain Bioenergetics after Acute Sleep Deprivation: A 31P Magnetic Resonance Spectroscopy Study at 4 Tesla. <i>Sleep</i> , 2014, 37, 1919-1927.	0.6	17
927	Saltatory conduction in unmyelinated axons: clustering of Na ⁺ channels on lipid rafts enables micro-saltatory conduction in C-fibers. <i>Frontiers in Neuroanatomy</i> , 2014, 8, 109.	0.9	38
928	MRI Mapping of Cerebrovascular Reactivity via Gas Inhalation Challenges. <i>Journal of Visualized Experiments</i> , 2014, , .	0.2	57
929	Oxygen and seizure dynamics: I. Experiments. <i>Journal of Neurophysiology</i> , 2014, 112, 205-212.	0.9	35
930	Reductions in muscle coactivation and metabolic cost during visuomotor adaptation. <i>Journal of Neurophysiology</i> , 2014, 112, 2264-2274.	0.9	21
931	Developmental Patterns of Sleep Slow Wave Activity and Synaptic Density in Adolescent Mice. <i>Sleep</i> , 2014, 37, 689-700.	0.6	38
933	Longitudinal MR cortical thinning of individuals and its correlation with PET metabolic reduction: a measurement consistency and correctness studies. , 2014, , .		0
934	Oxygen and seizure dynamics: II. Computational modeling. <i>Journal of Neurophysiology</i> , 2014, 112, 213-223.	0.9	73
935	The energetic basis of behavior: bridging behavioral ecology and neuroscience. <i>Current Opinion in Behavioral Sciences</i> , 2015, 6, 19-27.	2.0	26
936	Plasticity as panacea? Nerves, hormones, and the currencies of trade-offs. <i>Environmental Epigenetics</i> , 2015, 61, 251-264.	0.9	6

#	ARTICLE	IF	CITATIONS
937	Adaptive shut-down of EEG activity predicts critical acidemia in the near-term ovine fetus. <i>Physiological Reports</i> , 2015, 3, e12435.	0.7	19
938	Localization of the kinesin adaptor proteins trafficking kinesin proteins 1 and 2 in primary cultures of hippocampal pyramidal and cortical neurons. <i>Journal of Neuroscience Research</i> , 2015, 93, 1056-1066.	1.3	20
939	Two-population model for medial temporal lobe neurons: The vast majority are almost silent. <i>Physical Review E</i> , 2015, 92, 012712.	0.8	0
940	An effective plasma membrane proteomics approach for small tissue samples. <i>Scientific Reports</i> , 2015, 5, 10917.	1.6	28
941	Temperature Effects on Information Capacity and Energy Efficiency of Hodgkin-Huxley Neuron. <i>Chinese Physics Letters</i> , 2015, 32, 108701.	1.3	10
942	Quantitative Phosphoproteomic Analyses of the Inferior Parietal Lobule from Three Different Pathological Stages of Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2015, 49, 45-62.	1.2	33
943	A highly polarized excitable cell separates sodium channels from sodium-activated potassium channels by more than a millimeter. <i>Journal of Neurophysiology</i> , 2015, 114, 520-530.	0.9	13
944	Quantitative Measurement of [Na ⁺] and [K ⁺] in Postmortem Human Brain Tissue Indicates Disturbances in Subjects with Alzheimer's Disease and Dementia with Lewy Bodies. <i>Journal of Alzheimer's Disease</i> , 2015, 44, 851-857.	1.2	16
945	The neuromechanics of hearing. <i>AIP Conference Proceedings</i> , 2015, , .	0.3	0
946	Energy-Efficient Information Transfer by Visual Pathway Synapses. <i>Current Biology</i> , 2015, 25, 3151-3160.	1.8	60
947	Parallel sparse and dense information coding streams in the electrosensory midbrain. <i>Neuroscience Letters</i> , 2015, 607, 1-6.	1.0	20
948	The Evolution of Mechanisms Underlying Behaviour. <i>Environmental Epigenetics</i> , 2015, 61, 221-225.	0.9	8
949	Regulation of density of functional presynaptic terminals by local energy supply. <i>Molecular Brain</i> , 2015, 8, 42.	1.3	8
950	Antioxidant-Mediated Reversal of Oxidative Damage in Mouse Modeling of Complex I Inhibition. <i>Drug Development Research</i> , 2015, 76, 72-81.	1.4	9
951	Contrast and response gain control depend on cortical map architecture. <i>European Journal of Neuroscience</i> , 2015, 42, 2963-2973.	1.2	0
952	The interplay between metabolic homeostasis and neurodegeneration: insights into the neurometabolic nature of amyotrophic lateral sclerosis. <i>Cell Regeneration</i> , 2015, 4, 4:5.	1.1	44
953	Distribution of the creatine transporter throughout the human brain reveals a spectrum of creatine transporter immunoreactivity. <i>Journal of Comparative Neurology</i> , 2015, 523, 699-725.	0.9	37
956	Dynamic correlations between hemodynamic, metabolic, and neuronal responses to acute whole-brain ischemia. <i>NMR in Biomedicine</i> , 2015, 28, 1357-1365.	1.6	15

#	ARTICLE	IF	CITATIONS
957	Pharmacological MRI response to a selective dopamine transporter inhibitor, GBR12909, in awake and anesthetized rats. <i>Synapse</i> , 2015, 69, 203-212.	0.6	4
959	Mechanisms for Discomfort Glare in Central Vision. <i>Investigative Ophthalmology and Visual Science</i> , 2015, 56, 464-471.	3.3	16
960	Microstructural effects of Ramadan fasting on the brain: a diffusion tensor imaging study. <i>Diagnostic and Interventional Radiology</i> , 2015, 21, 256-261.	0.7	5
961	Optimal Size for Maximal Energy Efficiency in Information Processing of Biological Systems Due to Bistability. <i>Chinese Physics Letters</i> , 2015, 32, 110501.	1.3	2
962	The Fisher Information as a Neural Guiding Principle for Independent Component Analysis. <i>Entropy</i> , 2015, 17, 3838-3856.	1.1	6
963	Dehydroascorbic Acid Attenuates Ischemic Brain Edema and Neurotoxicity in Cerebral Ischemia: An <i>in vivo</i> Study. <i>Experimental Neurobiology</i> , 2015, 24, 41-54.	0.7	21
964	A New Outlook on Mental Illnesses: Glial Involvement Beyond the Glue. <i>Frontiers in Cellular Neuroscience</i> , 2015, 9, 468.	1.8	49
965	Phase diagram of spiking neural networks. <i>Frontiers in Computational Neuroscience</i> , 2015, 9, 19.	1.2	3
966	A stimulus-dependent spike threshold is an optimal neural coder. <i>Frontiers in Computational Neuroscience</i> , 2015, 9, 61.	1.2	10
967	Input-output relation and energy efficiency in the neuron with different spike threshold dynamics. <i>Frontiers in Computational Neuroscience</i> , 2015, 9, 62.	1.2	22
968	Solving difficult problems creatively: a role for energy optimised deterministic/stochastic hybrid computing. <i>Frontiers in Computational Neuroscience</i> , 2015, 9, 124.	1.2	5
969	Analysis of Neural-BOLD Coupling Through Four Models of the Neural Metabolic Demand. <i>Frontiers in Neuroscience</i> , 2015, 9, 419.	1.4	5
970	Investigating Human Neurovascular Coupling Using Functional Neuroimaging: A Critical Review of Dynamic Models. <i>Frontiers in Neuroscience</i> , 2015, 9, 467.	1.4	91
971	Rethinking energy in parkinsonian motor symptoms: a potential role for neural metabolic deficits. <i>Frontiers in Systems Neuroscience</i> , 2015, 8, 242.	1.2	14
972	Philosophy of the Spike: Rate-Based vs. Spike-Based Theories of the Brain. <i>Frontiers in Systems Neuroscience</i> , 2015, 9, 151.	1.2	170
973	Editorial: "Transcellular Cycles Underlying Neurotransmission". <i>Frontiers in Nutrition</i> , 2015, 2, 18.	1.6	1
974	Neurobiology of Alzheimer's Disease: Integrated Molecular, Physiological, Anatomical, Biomarker, and Cognitive Dimensions. <i>Current Alzheimer Research</i> , 2015, 12, 712-722.	0.7	134
975	Energy Efficient Sparse Connectivity from Imbalanced Synaptic Plasticity Rules. <i>PLoS Computational Biology</i> , 2015, 11, e1004265.	1.5	16

#	ARTICLE	IF	CITATIONS
976	Old Things New View: Ascorbic Acid Protects the Brain in Neurodegenerative Disorders. <i>International Journal of Molecular Sciences</i> , 2015, 16, 28194-28217.	1.8	111
977	Neuroimaging in Dementias. , 2015, , 107-118.		0
978	Biochemistry and Psychology of Chess and Classical Physical Exercise: Concurring or Conflicting Evidence?., 2015, 05, .		4
979	A Cellular Perspective on Brain Energy Metabolism and Functional Imaging. <i>Neuron</i> , 2015, 86, 883-901.	3.8	871
980	A mathematical model relating cortical oxygenated and deoxygenated hemoglobin flows and volumes to neural activity. <i>Journal of Neural Engineering</i> , 2015, 12, 046013.	1.8	0
981	â€˜Activity-silentâ€™ working memory in prefrontal cortex: a dynamic coding framework. <i>Trends in Cognitive Sciences</i> , 2015, 19, 394-405.	4.0	606
982	Resolving presynaptic structure by electron tomography. <i>Synapse</i> , 2015, 69, 268-282.	0.6	19
983	The Default Mode of Human Brain Function Primes the Intentional Stance. <i>Journal of Cognitive Neuroscience</i> , 2015, 27, 1116-1124.	1.1	73
984	Increased segregation of brain networks in focal epilepsy: An fMRI graph theory finding. <i>NeuroImage: Clinical</i> , 2015, 8, 536-542.	1.4	93
985	Establishing task- and modality-dependent dissociations between the semantic and default mode networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 7857-7862.	3.3	170
986	Convergent evolution of brain morphology and communication modalities in lizards. <i>Environmental Epigenetics</i> , 2015, 61, 281-291.	0.9	14
987	Coupling cellular metabolism to neuronal signalling. <i>Journal of Physiology</i> , 2015, 593, 3413-3415.	1.3	2
988	Morphine Tolerance and Physical Dependence Are Altered in Conditional HIV-1 Tat Transgenic Mice. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2015, 356, 96-105.	1.3	19
989	Fear is the mother of invention: anuran embryos exposed to predator cues alter life-history traits, post-hatching behaviour, and neuronal activity patterns. <i>Journal of Experimental Biology</i> , 2015, 218, 3919-30.	0.8	19
990	Energy dependence on the electric activities of a neuron. <i>Chinese Physics B</i> , 2015, 24, 128710.	0.7	65
991	Preferential reduction of synaptic efficacy in the dentate gyrus of hippocampal slices from aged rats during reduced glucose availability. <i>Neuroscience</i> , 2015, 307, 262-272.	1.1	1
992	Generalized periodic discharges: Pathophysiology and clinical considerations. <i>Epilepsy and Behavior</i> , 2015, 49, 228-233.	0.9	53
993	Hemodynamic and EEG Time-Courses During Unilateral Hand Movement in Patients with Cortical Myoclonus. An EEG-fMRI and EEG-TD-fNIRS Study. <i>Brain Topography</i> , 2015, 28, 915-925.	0.8	30

#	ARTICLE	IF	CITATIONS
994	Cortical hyperexcitability and sensitivity to discomfort glare. <i>Neuropsychologia</i> , 2015, 69, 194-200.	0.7	37
995	The Role of Telomerase Protein TERT in Alzheimer's Disease and in Tau-Related Pathology<i>In Vitro</i>. <i>Journal of Neuroscience</i> , 2015, 35, 1659-1674.	1.7	117
996	GABAAR Receptor-Mediated Bidirectional Control of Synaptic Activity, Intracellular Ca ²⁺ , Cerebral Blood Flow, and Oxygen Consumption in Mouse Somatosensory Cortex In Vivo. <i>Cerebral Cortex</i> , 2015, 25, 2594-2609.	1.6	20
997	Does acute caffeine ingestion alter brain metabolism in young adults?. <i>NeuroImage</i> , 2015, 110, 39-47.	2.1	54
998	A New Work Mechanism on Neuronal Activity. <i>International Journal of Neural Systems</i> , 2015, 25, 1450037.	3.2	48
999	The Astrocyte: Powerhouse and Recycling Center. <i>Cold Spring Harbor Perspectives in Biology</i> , 2015, 7, a020396.	2.3	127
1000	Improved sparse decomposition based on a smoothed L0 norm using a Laplacian kernel to select features from fMRI data. <i>Journal of Neuroscience Methods</i> , 2015, 245, 15-24.	1.3	13
1001	Brain hemodynamic response to somatosensory stimulation in Neuroligin-1 knockout mice. <i>Neuroscience</i> , 2015, 289, 242-250.	1.1	1
1002	Visual discomfort and the spatial distribution of Fourier energy. <i>Vision Research</i> , 2015, 108, 1-7.	0.7	78
1003	Ageing and inflammation â€œ A central role for mitochondria in brain health and disease. <i>Ageing Research Reviews</i> , 2015, 21, 30-42.	5.0	92
1004	Brain size variation in extremophile fish: local adaptation versus phenotypic plasticity. <i>Journal of Zoology</i> , 2015, 295, 143-153.	0.8	55
1005	Identifying and Mapping Connectivity Patterns of Brain Network Hubs in Alzheimer's Disease. <i>Cerebral Cortex</i> , 2015, 25, 3723-3742.	1.6	270
1006	Smoking Normalizes Cerebral Blood Flow and Oxygen Consumption after 12-Hour Abstinence. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2015, 35, 699-705.	2.4	26
1007	Nonâ€œsignalling energy use in the brain. <i>Journal of Physiology</i> , 2015, 593, 3417-3429.	1.3	170
1008	A Slow or Modulatory Role of Astrocytes in Neurovascular Coupling. <i>Microcirculation</i> , 2015, 22, 197-203.	1.0	28
1009	REAL-TIME MEASUREMENT OF ATP AND ADENOSINE IN THE NERVOUS SYSTEM. , 2015, , 45-77.		0
1010	Patterned Optogenetic Modulation of Neurovascular and Metabolic Signals. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2015, 35, 140-147.	2.4	15
1011	Mitochondrial ATP-Mg/Pi Carrier S _{Ca} MC-3/Slc25a23 Counteracts PARP-1-Dependent Fall in Mitochondrial ATP Caused by Excitotoxic Insults in Neurons. <i>Journal of Neuroscience</i> , 2015, 35, 3566-3581.	1.7	50

#	ARTICLE	IF	CITATIONS
1012	Astrocytes restrict discharge duration and neuronal sodium loads during recurrent network activity. <i>Glia</i> , 2015, 63, 936-957.	2.5	64
1013	Sleep and Early Cortical Development. <i>Current Sleep Medicine Reports</i> , 2015, 1, 64-73.	0.7	53
1014	Neural Mechanisms of Brain Plasticity with Complex Cognitive Training in Healthy Seniors. <i>Cerebral Cortex</i> , 2015, 25, 396-405.	1.6	191
1015	Spectrum enhancement with sparse coding for robust speech recognition. , 2015, 43, 59-70.		11
1016	Invariance in current dipole moment density across brain structures and species: Physiological constraint for neuroimaging. <i>NeuroImage</i> , 2015, 111, 49-58.	2.1	48
1017	Scaling of cerebral blood perfusion in primates and marsupials. <i>Journal of Experimental Biology</i> , 2015, 218, 2631-40.	0.8	20
1018	Optimal decoding and information transmission in Hodgkinâ€“Huxley neurons under metabolic cost constraints. <i>BioSystems</i> , 2015, 136, 3-10.	0.9	17
1019	Vinpocetine modulates metabolic activity and function during retinal ischemia. <i>American Journal of Physiology - Cell Physiology</i> , 2015, 308, C737-C749.	2.1	13
1020	The Resting-State Physiology of the Human Cerebral Cortex. , 2015, , 203-209.		4
1021	Alzheimer's disease: the amyloid hypothesis and the Inverse Warburg effect. <i>Frontiers in Physiology</i> , 2014, 5, 522.	1.3	103
1022	Quantifying the Number of Discriminable Coincident Dendritic Input Patterns through Dendritic Tree Morphology. <i>Scientific Reports</i> , 2015, 5, 11543.	1.6	5
1023	Monoaminergic Control of Cellular Glucose Utilization by Glycogenolysis in Neocortex and Hippocampus. <i>Neurochemical Research</i> , 2015, 40, 2493-2504.	1.6	18
1024	A two-step super-Gaussian independent component analysis approach for fMRI data. <i>NeuroImage</i> , 2015, 118, 344-358.	2.1	7
1025	Control of cerebrovascular patterning by neural activity during postnatal development. <i>Mechanisms of Development</i> , 2015, 138, 43-49.	1.7	50
1026	Brain metabolic changes in Hodgkin disease patients following diagnosis and during the disease course: An 18F-FDG PET/CT study. <i>Oncology Letters</i> , 2015, 9, 685-690.	0.8	16
1027	Multi-timescale Modeling of Activity-Dependent Metabolic Coupling in the Neuron-Glia-Vasculature Ensemble. <i>PLoS Computational Biology</i> , 2015, 11, e1004036.	1.5	86
1028	Insulin and Insulin-like Growth Factor 1 (IGF-1) Modulate Cytoplasmic Glucose and Glycogen Levels but Not Glucose Transport across the Membrane in Astrocytes. <i>Journal of Biological Chemistry</i> , 2015, 290, 11167-11176.	1.6	46
1029	Neural Evolution: Marginal Gains through Soma Location. <i>Current Biology</i> , 2015, 25, R330-R332.	1.8	2

#	ARTICLE	IF	CITATIONS
1030	Externalization of neuronal somata as an evolutionary strategy for energy economization. <i>Current Biology</i> , 2015, 25, R324-R325.	1.8	15
1031	Cell Division: Molecular Pathways for KMN Kinetochore Recruitment. <i>Current Biology</i> , 2015, 25, R332-R335.	1.8	3
1032	Transcriptional regulation of N-acetylaspartate metabolism in the 5xFAD model of Alzheimer's disease: Evidence for neuron-glia communication during energetic crisis. <i>Molecular and Cellular Neurosciences</i> , 2015, 65, 143-152.	1.0	14
1033	Spike detection methods for polytrodes and high density microelectrode arrays. <i>Journal of Computational Neuroscience</i> , 2015, 38, 249-261.	0.6	22
1034	Metabolic regulation of adult stem cell-derived neurons. <i>Frontiers in Biology</i> , 2015, 10, 107-116.	0.7	5
1035	Understanding the dynamic relationship between cerebral blood flow and the BOLD signal: Implications for quantitative functional MRI. <i>NeuroImage</i> , 2015, 116, 158-167.	2.1	34
1036	Modeling fMRI signals can provide insights into neural processing in the cerebral cortex. <i>Journal of Neurophysiology</i> , 2015, 114, 768-780.	0.9	8
1037	The Contribution of Mitochondria to Sensory Processing and Pain. <i>Progress in Molecular Biology and Translational Science</i> , 2015, 131, 119-146.	0.9	99
1038	Relationship between simultaneously acquired resting-state regional cerebral glucose metabolism and functional MRI: A PET/MR hybrid scanner study. <i>NeuroImage</i> , 2015, 113, 111-121.	2.1	182
1040	The neuroenergetics of stress hormones in the hippocampus and implications for memory. <i>Frontiers in Neuroscience</i> , 2015, 9, 164.	1.4	55
1041	Dictionary evaluation and optimization for sparse coding based speech processing. <i>Information Sciences</i> , 2015, 310, 77-96.	4.0	7
1042	FDG PET Findings of the Brain in Sudden Blindness Caused by Bilateral Central Retinal Artery Occlusion Revealing Giant Cell Arteritis. <i>Clinical Nuclear Medicine</i> , 2015, 40, 45-46.	0.7	7
1043	The regulation of neuronal mitochondrial metabolism by calcium. <i>Journal of Physiology</i> , 2015, 593, 3447-3462.	1.3	130
1044	The Functional Role of Neocortical Activity in the Processes of Interregional Interaction. <i>Neuroscience and Behavioral Physiology</i> , 2015, 45, 239-251.	0.2	1
1045	Functional correlates of t-Tau, p-Tau and A β 1-42 amyloid cerebrospinal fluid levels in Alzheimer's disease. <i>Nuclear Medicine Communications</i> , 2015, 36, 461-468.	0.5	22
1046	Neuronal and Vascular Interactions. <i>Annual Review of Neuroscience</i> , 2015, 38, 25-46.	5.0	200
1047	Interactions between mitochondria and the transcription factor myocyte enhancer factor 2 (MEF2) regulate neuronal structural and functional plasticity and metaplasticity. <i>Journal of Physiology</i> , 2015, 593, 3471-3481.	1.3	25
1048	Synergistic Action of Dendritic Mitochondria and Creatine Kinase Maintains ATP Homeostasis and Actin Dynamics in Growing Neuronal Dendrites. <i>Journal of Neuroscience</i> , 2015, 35, 5707-5723.	1.7	59

#	ARTICLE	IF	CITATIONS
1049	ATP6AP2/(Pro)renin Receptor Contributes to Glucose Metabolism via Stabilizing the Pyruvate Dehydrogenase E1 β Subunit. <i>Journal of Biological Chemistry</i> , 2015, 290, 9690-9700.	1.6	35
1050	Astroglia and Brain Metabolism: Focus on Energy and Neurotransmitter Amino Acid Homeostasis. <i>Colloquium Series on Neuroglia in Biology and Medicine From Physiology To Disease</i> , 2015, 2, 1-64.	0.5	1
1051	Neural Evolution: Costing the Benefits of Eye Loss. <i>Current Biology</i> , 2015, 25, R840-R841.	1.8	8
1052	Online computation of sparse representations of time varying stimuli using a biologically motivated neural network. , 2015, , .		0
1053	Understanding the susceptibility of dopamine neurons to mitochondrial stressors in Parkinson's disease. <i>FEBS Letters</i> , 2015, 589, 3702-3713.	1.3	99
1054	Neuron sparseness versus connection sparseness in deep neural network for large vocabulary speech recognition. , 2015, , .		1
1055	Origin and Function of Tuning Diversity in Macaque Visual Cortex. <i>Neuron</i> , 2015, 88, 819-831.	3.8	75
1056	Heterogeneity and Efficiency in the Brain. <i>Proceedings of the IEEE</i> , 2015, 103, 1346-1358.	16.4	34
1057	Adenosine A2B receptor activation stimulates glucose uptake in the mouse forebrain. <i>Purinergic Signalling</i> , 2015, 11, 561-569.	1.1	26
1058	Mitochondrial dysfunction and seizures: the neuronal energy crisis. <i>Lancet Neurology</i> , The, 2015, 14, 956-966.	4.9	176
1059	Creatine as a booster for human brain function. How might it work?. <i>Neurochemistry International</i> , 2015, 89, 249-259.	1.9	71
1060	Energy Efficient Neurons With Generalized Inverse Gaussian Conditional and Marginal Hitting Times. <i>IEEE Transactions on Information Theory</i> , 2015, 61, 4390-4398.	1.5	11
1061	Altered age-related changes in bioenergetic properties and mitochondrial morphology in fibroblasts from sporadic amyotrophic lateral sclerosis patients. <i>Neurobiology of Aging</i> , 2015, 36, 2893-2903.	1.5	38
1062	Using a combination of fMRI and anterior temporal lobe rTMS to measure intrinsic and induced activation changes across the semantic cognition network. <i>Neuropsychologia</i> , 2015, 76, 170-181.	0.7	63
1063	Layer-Specific fMRI Responses to Excitatory and Inhibitory Neuronal Activities in the Olfactory Bulb. <i>Journal of Neuroscience</i> , 2015, 35, 15263-15275.	1.7	61
1064	The effect of isocapnic hyperoxia on neurophysiology as measured with MRI and MEG. <i>NeuroImage</i> , 2015, 105, 323-331.	2.1	16
1065	Isoform-selective regulation of glycogen phosphorylase by energy deprivation and phosphorylation in astrocytes. <i>Glia</i> , 2015, 63, 154-162.	2.5	47
1066	The Glutamine-Glutamate/GABA Cycle: Function, Regional Differences in Glutamate and GABA Production and Effects of Interference with GABA Metabolism. <i>Neurochemical Research</i> , 2015, 40, 402-409.	1.6	177

#	ARTICLE	IF	CITATIONS
1067	Electrophysiological correlates of the BOLD signal for EEG-informed fMRI. <i>Human Brain Mapping</i> , 2015, 36, 391-414.	1.9	137
1068	Thiamine Deficiency-Mediated Brain Mitochondrial Pathology in <i>A</i> <i>laskan</i> <i>H</i> <i>uskies</i> with Mutation in <i>SLC19A3.1</i> . <i>Brain Pathology</i> , 2015, 25, 441-453.	2.1	27
1069	Monocarboxylate transporters in temporal lobe epilepsy: roles of lactate and ketogenic diet. <i>Brain Structure and Function</i> , 2015, 220, 1-12.	1.2	33
1070	The return of metabolism: biochemistry and physiology of the pentose phosphate pathway. <i>Biological Reviews</i> , 2015, 90, 927-963.	4.7	908
1071	Novel synaptic memory device for neuromorphic computing. <i>Scientific Reports</i> , 2014, 4, 5333.	1.6	85
1072	Can lactate serve as an energy substrate for axons in good times and in bad, in sickness and in health?. <i>Metabolic Brain Disease</i> , 2015, 30, 25-30.	1.4	55
1073	Brain metabolism and Alzheimer's disease: The prospect of a metabolite-based therapy. <i>Journal of Nutrition, Health and Aging</i> , 2015, 19, 58-63.	1.5	34
1074	The metabolic response to excitotoxicity " lessons from single-cell imaging. <i>Journal of Bioenergetics and Biomembranes</i> , 2015, 47, 75-88.	1.0	30
1075	Topography of Excitatory Cortico-cortical Connections in Three Main Tiers of the Visual Cortex. , 2016, , 135-158.		4
1076	Altered Energy Metabolism Pathways in the Posterior Cingulate in Young Adult Apolipoprotein E ϵ 4 Carriers. <i>Journal of Alzheimer's Disease</i> , 2016, 53, 95-106.	1.2	64
1077	Wnt5a Increases the Glycolytic Rate and the Activity of the Pentose Phosphate Pathway in Cortical Neurons. <i>Neural Plasticity</i> , 2016, 2016, 1-13.	1.0	10
1078	Linking Mitochondria to Synapses: New Insights for Stress-Related Neuropsychiatric Disorders. <i>Neural Plasticity</i> , 2016, 2016, 1-13.	1.0	60
1079	Exercise Counteracts Aging-Related Memory Impairment: A Potential Role for the Astrocytic Metabolic Shuttle. <i>Frontiers in Aging Neuroscience</i> , 2016, 8, 57.	1.7	28
1080	Structural Plasticity, Effectual Connectivity, and Memory in Cortex. <i>Frontiers in Neuroanatomy</i> , 2016, 10, 63.	0.9	27
1081	Contextual Modulation is Related to Efficiency in a Spiking Network Model of Visual Cortex. <i>Frontiers in Computational Neuroscience</i> , 2016, 9, 155.	1.2	0
1082	Modeling of Cerebral Oxygen Transport Based on In vivo Microscopic Imaging of Microvascular Network Structure, Blood Flow, and Oxygenation. <i>Frontiers in Computational Neuroscience</i> , 2016, 10, 82.	1.2	60
1083	New Perspectives on Spontaneous Brain Activity: Dynamic Networks and Energy Matter. <i>Frontiers in Human Neuroscience</i> , 2016, 10, 247.	1.0	31
1084	Metabolic Energy of Action Potentials Modulated by Spike Frequency Adaptation. <i>Frontiers in Neuroscience</i> , 2016, 10, 534.	1.4	11

#	ARTICLE	IF	CITATIONS
1085	Energy and Potassium Ion Homeostasis during Gamma Oscillations. <i>Frontiers in Molecular Neuroscience</i> , 2016, 9, 47.	1.4	26
1086	Plasma Biomarkers for Monitoring Brain Pathophysiology in FMR1 Premutation Carriers. <i>Frontiers in Molecular Neuroscience</i> , 2016, 9, 71.	1.4	24
1087	Cell type specificity of neurovascular coupling in cerebral cortex. <i>ELife</i> , 2016, 5, .	2.8	176
1088	Decreased haemodynamic response and decoupling of cortical gamma-band activity and tissue oxygen perfusion after striatal interleukin-1 injection. <i>Journal of Neuroinflammation</i> , 2016, 13, 195.	3.1	6
1089	Chromatic Information and Feature Detection in Fast Visual Analysis. <i>PLoS ONE</i> , 2016, 11, e0159898.	1.1	3
1090	Role of Heterogeneous Macromolecular Crowding and Geometrical Irregularity at Central Excitatory Synapses in Shaping Synaptic Transmission. <i>PLoS ONE</i> , 2016, 11, e0167505.	1.1	2
1091	Optical coherence tomography angiography of stimulus evoked hemodynamic responses in individual retinal layers. <i>Biomedical Optics Express</i> , 2016, 7, 3151.	1.5	36
1092	Connectivity Matrices and Brain Graphs. , 2016, , 89-113.		14
1093	Insights into the Pathology of the $\hat{\pm}3$ Na ⁺ /K ⁺ -ATPase Ion Pump in Neurological Disorders; Lessons from Animal Models. <i>Frontiers in Physiology</i> , 2016, 7, 209.	1.3	85
1094	Mitochondria and Synaptic Plasticity in the Mature and Aging Nervous System. <i>Current Neuropharmacology</i> , 2017, 15, 166-173.	1.4	156
1096	Building a minimum frustration framework for brain functions over long time scales. <i>Journal of Neuroscience Research</i> , 2016, 94, 702-716.	1.3	16
1097	Activity-dependent calcium, oxygen, and vascular responses in a mouse model of familial hemiplegic migraine type 1. <i>Annals of Neurology</i> , 2016, 80, 219-232.	2.8	25
1098	Determinants of resting cerebral blood flow in sickle cell disease. <i>American Journal of Hematology</i> , 2016, 91, 912-917.	2.0	76
1099	Normalization of network connectivity in hemispatial neglect recovery. <i>Annals of Neurology</i> , 2016, 80, 127-141.	2.8	101
1100	The Effects of Physiological and Methodological Determinants on ¹⁸ F-FDG Mouse Brain Imaging Exemplified in a Double Transgenic Alzheimer Model. <i>Molecular Imaging</i> , 2016, 15, 153601211562491.	0.7	21
1103	A neuronal lactate uptake inhibitor slows recovery of extracellular ion concentration changes in the hippocampal CA3 region by affecting energy metabolism. <i>Journal of Neurophysiology</i> , 2016, 116, 2420-2430.	0.9	15
1104	Personalized approach in brain protection by hypothermia: individual changes in non-pathological and ischemia-related glutamate transport in brain nerve terminals. <i>EPMA Journal</i> , 2016, 7, 26.	3.3	13
1105	Anaplerosis for Glutamate Synthesis in the Neonate and in Adulthood. <i>Advances in Neurobiology</i> , 2016, 13, 43-58.	1.3	12

#	ARTICLE	IF	CITATIONS
1106	Novel neuroprotective and hepatoprotective effects of citric acid in acute malathion intoxication. <i>Asian Pacific Journal of Tropical Medicine</i> , 2016, 9, 1181-1194.	0.4	29
1107	Spontaneous activity is correlated with coding density in primary auditory cortex. <i>Journal of Neurophysiology</i> , 2016, 116, 2789-2798.	0.9	8
1108	EEG Monitoring in Cerebral Ischemia. <i>Journal of Clinical Neurophysiology</i> , 2016, 33, 203-210.	0.9	57
1110	Further Insight into the Brain's Rich-Club Architecture. <i>Journal of Neuroscience</i> , 2016, 36, 5675-5676.	1.7	9
1111	HIV-1 Tat and Cocaine Impair Survival of Cultured Primary Neuronal Cells via a Mitochondrial Pathway. <i>Journal of NeuroImmune Pharmacology</i> , 2016, 11, 358-368.	2.1	34
1112	Metabolic reprogramming during neuronal differentiation. <i>Cell Death and Differentiation</i> , 2016, 23, 1502-1514.	5.0	193
1113	MRI-based methods for quantification of the cerebral metabolic rate of oxygen. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2016, 36, 1165-1185.	2.4	41
1114	Uncertainty quantification in flux balance analysis of spatially lumped and distributed models of neuron-astrocyte metabolism. <i>Journal of Mathematical Biology</i> , 2016, 73, 1823-1849.	0.8	8
1115	Predictors of cerebral blood flow in patients with and without anemia. <i>Journal of Applied Physiology</i> , 2016, 120, 976-981.	1.2	42
1116	A spiking and bursting neuron circuit based on memristor. <i>Neurocomputing</i> , 2016, 203, 86-91.	3.5	135
1117	High-Probability Neurotransmitter Release Sites Represent an Energy-Efficient Design. <i>Current Biology</i> , 2016, 26, 2562-2571.	1.8	40
1119	The quantum mitochondrion and optimal health. <i>Biochemical Society Transactions</i> , 2016, 44, 1101-1110.	1.6	24
1120	Neuronal energy consumption: biophysics, efficiency and evolution. <i>Current Opinion in Neurobiology</i> , 2016, 41, 129-135.	2.0	96
1121	An active inference theory of allostasis and interoception in depression. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2016, 371, 20160011.	1.8	314
1122	Gene transcription profiles associated with inter-modular hubs and connection distance in human functional magnetic resonance imaging networks. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2016, 371, 20150362.	1.8	188
1123	Activation of Wnt Signaling in Cortical Neurons Enhances Glucose Utilization through Glycolysis. <i>Journal of Biological Chemistry</i> , 2016, 291, 25950-25964.	1.6	46
1124	Optimistic and realistic perspectives on cognitive biases. <i>Current Opinion in Behavioral Sciences</i> , 2016, 12, 37-43.	2.0	14
1125	Î²-hydroxybutyrate, pyruvate and metabolic profiles in patients with schizophrenia: A case control study. <i>Psychoneuroendocrinology</i> , 2016, 73, 1-8.	1.3	12

#	ARTICLE	IF	CITATIONS
1126	Motifs, Small Worlds, and Network Economy. , 2016, , 257-301.		1
1127	Magnetic Resonance Spectroscopy in Epilepsy. , 2016, , 241-259.		0
1128	Functional magnetic resonance imaging. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2016, 135, 61-92.	1.0	46
1129	Characterization of glucose-related metabolic pathways in differentiated rat oligodendrocyte lineage cells. Glia, 2016, 64, 21-34.	2.5	71
1130	Magnetic Resonance Spectroscopy of Degenerative Brain Diseases. Contemporary Clinical Neuroscience, 2016, , .	0.3	3
1131	Energetics of Sensing and Communication in Electric Fish: A Blessing and a Curse in the Anthropocene?. Integrative and Comparative Biology, 2016, 56, 889-900.	0.9	31
1132	Interpreting BOLD: towards a dialogue between cognitive and cellular neuroscience. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150348.	1.8	46
1133	Autophagy in the eye: Development, degeneration, and aging. Progress in Retinal and Eye Research, 2016, 55, 206-245.	7.3	184
1134	Effect of different glucose supply conditions on neuronal energy metabolism. Cognitive Neurodynamics, 2016, 10, 563-571.	2.3	16
1135	The roadmap for estimation of cell-type-specific neuronal activity from non-invasive measurements. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150356.	1.8	41
1136	Neural metabolic coupling in the central visual pathway. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150357.	1.8	22
1137	How networks communicate: propagation patterns in spontaneous brain activity. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150546.	1.8	112
1138	A ketogenic diet accelerates neurodegeneration in mice with induced mitochondrial DNA toxicity in the forebrain. Neurobiology of Aging, 2016, 48, 34-47.	1.5	30
1139	Glutaminases. Advances in Neurobiology, 2016, 13, 133-171.	1.3	23
1140	Encoding sparse features in a Bidirectional Associative Memory. , 2016, , .		1
1141	Promotion of mitochondrial biogenesis by necdin protects neurons against mitochondrial insults. Nature Communications, 2016, 7, 10943.	5.8	60
1142	Cable energy function of cortical axons. Scientific Reports, 2016, 6, 29686.	1.6	27
1143	A cannabinoid link between mitochondria and memory. Nature, 2016, 539, 555-559.	13.7	331

#	ARTICLE	IF	CITATIONS
1144	Social complexity influences brain investment and neural operation costs in ants. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2016, 283, 20161949.	1.2	44
1145	Evolution of Biological Image Stabilization. <i>Current Biology</i> , 2016, 26, R1010-R1021.	1.8	50
1146	The theory of constructed emotion: an active inference account of interoception and categorization. <i>Social Cognitive and Affective Neuroscience</i> , 2017, 12, nsw154.	1.5	535
1147	The Influence of Wiring Economy on Nervous System Evolution. <i>Current Biology</i> , 2016, 26, R1101-R1108.	1.8	33
1148	Energy-efficient population coding constrains network size of a neuronal array system. <i>Scientific Reports</i> , 2016, 6, 19369.	1.6	24
1150	Mitochondrial Dysfunction in Neurodegenerative Disorders. , 2016, , .		3
1151	Prediction of Alzheimer's disease pathophysiology based on cortical thickness patterns. <i>Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring</i> , 2016, 2, 58-67.	1.2	58
1152	A brain stress test: Cerebral perfusion during memory encoding in mild cognitive impairment. <i>NeuroImage: Clinical</i> , 2016, 11, 388-397.	1.4	30
1153	Alterations in Prefrontal Cortical Circuitry and Cognitive Dysfunction in Schizophrenia. <i>Nebraska Symposium on Motivation</i> , 2016, 63, 31-75.	0.9	10
1154	Commissural Gain Control Enhances the Midbrain Representation of Sound Location. <i>Journal of Neuroscience</i> , 2016, 36, 4470-4481.	1.7	15
1155	Mitochondria, the Synapse, and Neurodegeneration. , 2016, , 219-239.		1
1156	$\hat{1}^2$ -Hydroxybutyrate supports synaptic vesicle cycling but reduces endocytosis and exocytosis in rat brain synaptosomes. <i>Neurochemistry International</i> , 2016, 93, 73-81.	1.9	36
1157	The effects of therapeutic hypothermia on cerebral metabolism in neonates with hypoxic-ischemic encephalopathy: An in vivo ¹ H-MR spectroscopy study. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2016, 36, 1075-1086.	2.4	52
1158	A transcriptional signature of hub connectivity in the mouse connectome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 1435-1440.	3.3	197
1159	Leveraging Optogenetic-Based Neurovascular Circuit Characterization for Repair. <i>Neurotherapeutics</i> , 2016, 13, 341-347.	2.1	4
1160	Direct 3D Analyses Reveal Barrel-Specific Vascular Distribution and Cross-Barrel Branching in the Mouse Barrel Cortex. <i>Cerebral Cortex</i> , 2016, 26, 23-31.	1.6	36
1161	Analytic Models of Oxygen and Nutrient Diffusion, Metabolism Dynamics, and Architecture Optimization in Three-Dimensional Tissue Constructs with Applications and Insights in Cerebral Organoids. <i>Tissue Engineering - Part C: Methods</i> , 2016, 22, 221-249.	1.1	151
1162	Thermodynamic analysis of the squid mantle muscles and giant axon during slow swimming and jet escape propulsion. <i>Energy</i> , 2016, 102, 537-549.	4.5	10

#	ARTICLE	IF	CITATIONS
1163	Chloride Regulation: A Dynamic Equilibrium Crucial for Synaptic Inhibition. <i>Neuron</i> , 2016, 89, 1157-1172.	3.8	202
1164	Sodium MRI of glioma in animal models at ultrahigh magnetic fields. <i>NMR in Biomedicine</i> , 2016, 29, 175-186.	1.6	31
1165	Resting-state functional MRI and [18F]-FDG PET demonstrate differences in neuronal activity between commonly used mouse strains. <i>NeuroImage</i> , 2016, 125, 571-577.	2.1	24
1166	Improved FastICA algorithm in fMRI data analysis using the sparsity property of the sources. <i>Journal of Neuroscience Methods</i> , 2016, 263, 103-114.	1.3	18
1167	Feature-Based Attention by Lateral Spike Synchronization. <i>Neural Computation</i> , 2016, 28, 629-651.	1.3	0
1168	Can predictive coding explain repetition suppression?. <i>Cortex</i> , 2016, 80, 113-124.	1.1	83
1169	Discriminative Power of Arterial Spin Labeling Magnetic Resonance Imaging and ^{18}F -Fluorodeoxyglucose Positron Emission Tomography Changes for Amyloid- β -Positive Subjects in the Alzheimer's Disease Continuum. <i>Neurodegenerative Diseases</i> , 2016, 16, 87-94.	0.8	35
1170	A physiological basis for visual discomfort: Application in lighting design. <i>Lighting Research and Technology</i> , 2016, 48, 44-54.	1.2	49
1171	Brain cortex mitochondrial bioenergetics in synaptosomes and non-synaptic mitochondria during aging. <i>Neurochemical Research</i> , 2016, 41, 353-363.	1.6	57
1172	The anticonvulsant action of the galanin receptor agonist NAX-5055 involves modulation of both excitatory- and inhibitory neurotransmission. <i>Epilepsy Research</i> , 2016, 121, 55-63.	0.8	5
1173	What do we mean by prediction in language comprehension?. <i>Language, Cognition and Neuroscience</i> , 2016, 31, 32-59.	0.7	665
1174	A minimum-error, energy-constrained neural code is an instantaneous-rate code. <i>Journal of Computational Neuroscience</i> , 2016, 40, 193-206.	0.6	6
1175	Large extracellular space leads to neuronal susceptibility to ischemic injury in a Na ⁺ /K ⁺ + pumps-dependent manner. <i>Journal of Computational Neuroscience</i> , 2016, 40, 177-192.	0.6	17
1176	Regulation of neuron-astrocyte metabolic coupling across the sleep-wake cycle. <i>Neuroscience</i> , 2016, 323, 135-156.	1.1	67
1177	Metabolic connectivity mapping reveals effective connectivity in the resting human brain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 428-433.	3.3	84
1178	The absolute CBF response to activation is preserved during elevated perfusion: Implications for neurovascular coupling measures. <i>NeuroImage</i> , 2016, 125, 198-207.	2.1	50
1179	Efficient Associative Computation with Discrete Synapses. <i>Neural Computation</i> , 2016, 28, 118-186.	1.3	9
1180	Effects of Intermittent Fasting, Caloric Restriction, and Ramadan Intermittent Fasting on Cognitive Performance at Rest and During Exercise in Adults. <i>Sports Medicine</i> , 2016, 46, 35-47.	3.1	74

#	ARTICLE	IF	CITATIONS
1181	White Matter Pathophysiology. , 2016, , 113-128.		0
1182	Antiretrovirals, Methamphetamine, and HIV-1 Envelope Protein gp120 Compromise Neuronal Energy Homeostasis in Association with Various Degrees of Synaptic and Neuritic Damage. Antimicrobial Agents and Chemotherapy, 2016, 60, 168-179.	1.4	44
1183	Cortical spreading depolarization: Pathophysiology, implications, and future directions. Journal of Clinical Neuroscience, 2016, 24, 22-27.	0.8	79
1184	Ratcheting and energetic aspects of synchronization in coupled bursting neurons. Nonlinear Dynamics, 2016, 83, 541-554.	2.7	5
1185	Can the activities of the large scale cortical network be expressed by neural energy? A brief review. Cognitive Neurodynamics, 2016, 10, 1-5.	2.3	38
1186	Optimization of learned dictionary for sparse coding in speech processing. Neurocomputing, 2016, 173, 471-482.	3.5	10
1187	The interneuron energy hypothesis: Implications for brain disease. Neurobiology of Disease, 2016, 90, 75-85.	2.1	197
1188	Astrocytic vesicles and gliotransmitters: Slowness of vesicular release and synaptobrevin2-laden vesicle nanoarchitecture. Neuroscience, 2016, 323, 67-75.	1.1	51
1189	Modulation of Synaptic Plasticity by Exercise Training as a Basis for Ischemic Stroke Rehabilitation. Cellular and Molecular Neurobiology, 2017, 37, 5-16.	1.7	54
1190	Alternative mitochondrial electron transfer for the treatment of neurodegenerative diseases and cancers: Methylene blue connects the dots. Progress in Neurobiology, 2017, 157, 273-291.	2.8	52
1191	Non-signalling energy use in the developing rat brain. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 951-966.	2.4	37
1192	Neurocognitive mechanisms of mathematical giftedness: A literature review. Applied Neuropsychology: Child, 2017, 6, 79-94.	0.7	17
1193	Review: Central nervous system involvement in mitochondrial disease. Neuropathology and Applied Neurobiology, 2017, 43, 102-118.	1.8	42
1194	The Neural Mechanism Exploration of Adaptive Motor Control: Dynamical Economic Cell Allocation in the Primary Motor Cortex. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 492-501.	2.7	2
1195	Differential Presynaptic ATP Supply for Basal and High-Demand Transmission. Journal of Neuroscience, 2017, 37, 1888-1899.	1.7	55
1196	Role of Mitochondrial Metabolism in the Control of Early Lineage Progression and Aging Phenotypes in Adult Hippocampal Neurogenesis. Neuron, 2017, 93, 560-573.e6.	3.8	221
1197	Modulation of Fast Narrowband Oscillations in the Mouse Retina and dLGN According to Background Light Intensity. Neuron, 2017, 93, 299-307.	3.8	73
1198	A Spiking Working Memory Model Based on Hebbian Short-Term Potentiation. Journal of Neuroscience, 2017, 37, 83-96.	1.7	6

#	ARTICLE	IF	CITATIONS
1199	Reduced metabolism in the hypothalamus of the anorectic anx/anx mouse. <i>Journal of Endocrinology</i> , 2017, 233, 15-24.	1.2	24
1200	Neuromemristive Systems: A Circuit Design Perspective. <i>Cognitive Systems Monographs</i> , 2017, , 45-64.	0.1	3
1201	Mitochondrial Dysfunction and Synaptic Transmission Failure in Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2017, 57, 1071-1086.	1.2	137
1202	Optimal trajectories of brain state transitions. <i>NeuroImage</i> , 2017, 148, 305-317.	2.1	143
1203	Differential effects of energy deprivation on intracellular sodium homeostasis in neurons and astrocytes. <i>Journal of Neuroscience Research</i> , 2017, 95, 2275-2285.	1.3	33
1204	Age differences in arterial and venous extra-cerebral blood flow in healthy adults: contributions of vascular risk factors and genetic variants. <i>Brain Structure and Function</i> , 2017, 222, 2641-2653.	1.2	5
1205	The Interplay of Axonal Energy Homeostasis and Mitochondrial Trafficking and Anchoring. <i>Trends in Cell Biology</i> , 2017, 27, 403-416.	3.6	158
1206	Biogenetic and morphofunctional heterogeneity of mitochondria: the case of synaptic mitochondria. <i>Reviews in the Neurosciences</i> , 2017, 28, 363-373.	1.4	32
1207	27-Hydroxycholesterol impairs neuronal glucose uptake through an IRAP/GLUT4 system dysregulation. <i>Journal of Experimental Medicine</i> , 2017, 214, 699-717.	4.2	64
1208	Imaging and spectroscopic approaches to probe brain energy metabolism dysregulation in neurodegenerative diseases. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2017, 37, 1927-1943.	2.4	24
1209	Developmental changes in trak-mediated mitochondrial transport in neurons. <i>Molecular and Cellular Neurosciences</i> , 2017, 80, 134-147.	1.0	20
1210	Cerebral vascular structure in the motor cortex of adult mice is stable and is not altered by voluntary exercise. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2017, 37, 3725-3743.	2.4	44
1211	Selective ligands for Na ⁺ /K ⁺ -ATPase α isoforms differentially and cooperatively regulate excitability of pyramidal neurons in distinct brain regions. <i>Neuropharmacology</i> , 2017, 117, 338-351.	2.0	15
1212	Effects of Near-Infrared Light on Cerebral Bioenergetics Measured with Phosphorus Magnetic Resonance Spectroscopy. <i>Photomedicine and Laser Surgery</i> , 2017, 35, 395-400.	2.1	14
1213	The novel anticonvulsant neuropeptide and galanin analogue, NAX-5055, does not alter energy and amino acid metabolism in cultured brain cells. <i>Journal of Neuroscience Research</i> , 2017, 95, 2286-2296.	1.3	0
1214	Creatine supplementation reduces sleep need and homeostatic sleep pressure in rats. <i>Journal of Sleep Research</i> , 2017, 26, 377-385.	1.7	8
1215	Brain metabolism in health, aging, and neurodegeneration. <i>EMBO Journal</i> , 2017, 36, 1474-1492.	3.5	467
1216	Information Rate Analysis of a Synaptic Release Site Using a Two-State Model of Short-Term Depression. <i>Neural Computation</i> , 2017, 29, 1528-1560.	1.3	3

#	ARTICLE	IF	CITATIONS
1217	Transcriptional signatures of connectomic subregions of the human striatum. <i>Genes, Brain and Behavior</i> , 2017, 16, 647-663.	1.1	36
1218	Maintenance of neuronal size gradient in MNTB requires sound-evoked activity. <i>Journal of Neurophysiology</i> , 2017, 117, 756-766.	0.9	20
1219	Hyperalgesic priming (type II) induced by repeated opioid exposure: maintenance mechanisms. <i>Pain</i> , 2017, 158, 1204-1216.	2.0	39
1220	Sensory system plasticity in a visually specialized, nocturnal spider. <i>Scientific Reports</i> , 2017, 7, 46627.	1.6	16
1221	Neurovascular-neuroenergetic coupling axis in the brain: master regulation by nitric oxide and consequences in aging and neurodegeneration. <i>Free Radical Biology and Medicine</i> , 2017, 108, 668-682.	1.3	66
1222	Interplay between Cortical Spreading Depolarization and Seizures. <i>Stereotactic and Functional Neurosurgery</i> , 2017, 95, 1-5.	0.8	2,441
1223	Voltage-dependent K ⁺ channels improve the energy efficiency of signalling in blowfly photoreceptors. <i>Journal of the Royal Society Interface</i> , 2017, 14, 20160938.	1.5	7
1224	Diuretic-sensitive electroneutral Na ⁺ movement and temperature effects on central axons. <i>Journal of Physiology</i> , 2017, 595, 3471-3482.	1.3	6
1225	Automated identification of mouse visual areas with intrinsic signal imaging. <i>Nature Protocols</i> , 2017, 12, 32-43.	5.5	84
1226	Mitochondrial Aspects of Synaptic Dysfunction in Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2017, 57, 1087-1103.	1.2	176
1227	Brain glucose metabolism: Role of Wnt signaling in the metabolic impairment in Alzheimer's disease. <i>Neuroscience and Biobehavioral Reviews</i> , 2017, 80, 316-328.	2.9	32
1228	Brain-Inspired Photonic Neuromorphic Devices using Photodynamic Amorphous Oxide Semiconductors and their Persistent Photoconductivity. <i>Advanced Materials</i> , 2017, 29, 1700951.	11.1	346
1229	Energy dependence on modes of electric activities of neuron driven by multi-channel signals. <i>Nonlinear Dynamics</i> , 2017, 89, 1967-1987.	2.7	46
1230	Relationship between pubertal timing and chronic nonspecific pain in adolescent girls: the Young-HUNT3 study (2006-2008). <i>Pain</i> , 2017, 158, 1554-1560.	2.0	11
1231	A longitudinal study of the influence of comorbidities and lifestyle factors on low back pain in older men. <i>Pain</i> , 2017, 158, 1571-1576.	2.0	15
1232	Post-stimulus fMRI and EEG responses: Evidence for a neuronal origin hypothesised to be inhibitory. <i>NeuroImage</i> , 2017, 157, 388-399.	2.1	40
1233	Cellular Gauge Symmetry and the Li Organization Principle: A Mathematical Addendum. Quantifying energetic dynamics in physical and biological systems through a simple geometric tool and geodetic curves. <i>Progress in Biophysics and Molecular Biology</i> , 2017, 131, 153-161.	1.4	2
1234	Advances in Imaging Brain Metabolism. <i>Annual Review of Biomedical Engineering</i> , 2017, 19, 485-515.	5.7	40

#	ARTICLE	IF	CITATIONS
1235	Protein kinase C epsilon delays latency until anoxic depolarization through arc expression and GluR2 internalization. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2017, 37, 3774-3788.	2.4	10
1236	Modulation of brainstem activity and connectivity by respiratory-gated auricular vagal afferent nerve stimulation in migraine patients. <i>Pain</i> , 2017, 158, 1461-1472.	2.0	99
1237	Paclitaxel-induced painful neuropathy is associated with changes in mitochondrial bioenergetics, glycolysis, and an energy deficit in dorsal root ganglia neurons. <i>Pain</i> , 2017, 158, 1499-1508.	2.0	76
1238	Interacting influences of gender and chronic pain status on parasympathetically mediated heart rate variability in adolescents and young adults. <i>Pain</i> , 2017, 158, 1509-1516.	2.0	35
1239	The evolution of lossy compression. <i>Journal of the Royal Society Interface</i> , 2017, 14, 20170166.	1.5	35
1240	Noise in Neuronal and Electronic Circuits: A General Modeling Framework and Non-Monte Carlo Simulation Techniques. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2017, 11, 958-974.	2.7	2
1241	Brain energy metabolism spurns fatty acids as fuel due to their inherent mitotoxicity and potential capacity to unleash neurodegeneration. <i>Neurochemistry International</i> , 2017, 109, 68-77.	1.9	56
1242	Neuroprotective effects of 2,4-dinitrophenol in an acute model of Parkinson's disease. <i>Brain Research</i> , 2017, 1663, 184-193.	1.1	23
1243	Inference of direct and multistep effective connectivities from functional connectivity of the brain and of relationships to cortical geometry. <i>Journal of Neuroscience Methods</i> , 2017, 283, 42-54.	1.3	18
1244	Multiasociative Memory: Recurrent Synapses Increase Storage Capacity. <i>Neural Computation</i> , 2017, 29, 1375-1405.	1.3	3
1245	Glucose metabolism in mammalian photoreceptor inner and outer segments. <i>Clinical and Experimental Ophthalmology</i> , 2017, 45, 730-741.	1.3	66
1246	From abstract topology to real thermodynamic brain activity. <i>Cognitive Neurodynamics</i> , 2017, 11, 283-292.	2.3	25
1247	Central Regulation of Glucose Homeostasis. , 2017, 7, 741-764.		52
1248	Energy metabolism in the rat cortex under thiopental anaesthesia measured <i>In Vivo</i> by ¹³ C MRS. <i>Journal of Neuroscience Research</i> , 2017, 95, 2297-2306.	1.3	14
1249	Glutamate and Brain Glutaminases in Drug Addiction. <i>Neurochemical Research</i> , 2017, 42, 846-857.	1.6	35
1250	Dissecting neurovascular coupling mechanisms: a role for adenosine A _{2A} receptor. <i>Journal of Neurochemistry</i> , 2017, 140, 10-12.	2.1	3
1251	Comparison of Glutamate Turnover in Nerve Terminals and Brain Tissue During [1,6- ¹³ C]Glucose Metabolism in Anesthetized Rats. <i>Neurochemical Research</i> , 2017, 42, 173-190.	1.6	7
1252	Mitostasis in Neurons: Maintaining Mitochondria in an Extended Cellular Architecture. <i>Neuron</i> , 2017, 96, 651-666.	3.8	379

#	ARTICLE	IF	CITATIONS
1253	Zdhhc13-dependent Drp1 S-palmitoylation impacts brain bioenergetics, anxiety, coordination and motor skills. <i>Scientific Reports</i> , 2017, 7, 12796.	1.6	34
1254	Control of brain energy supply by astrocytes. <i>Current Opinion in Neurobiology</i> , 2017, 47, 80-85.	2.0	97
1255	A trade-off between cognitive and physical performance, with relative preservation of brain function. <i>Scientific Reports</i> , 2017, 7, 13709.	1.6	21
1256	Dynamical response, information transition and energy dependence in a neuron model driven by autapse. <i>Nonlinear Dynamics</i> , 2017, 90, 2893-2902.	2.7	24
1257	Energy-efficient neural information processing in individual neurons and neuronal networks. <i>Journal of Neuroscience Research</i> , 2017, 95, 2253-2266.	1.3	72
1258	<i>Streptococcus agalactiae</i> impairs cerebral bioenergetics in experimentally infected silver catfish. <i>Microbial Pathogenesis</i> , 2017, 111, 28-32.	1.3	6
1259	Defining Optimal Brain Health in Adults: A Presidential Advisory From the American Heart Association/American Stroke Association. <i>Stroke</i> , 2017, 48, e284-e303.	1.0	279
1260	26th Annual Computational Neuroscience Meeting (CNS*2017): Part 3. <i>BMC Neuroscience</i> , 2017, 18, .	0.8	7
1261	Low cerebral blood flow after cardiac arrest is not associated with anaerobic cerebral metabolism. <i>Resuscitation</i> , 2017, 120, 45-50.	1.3	23
1262	Contribution of transcranial magnetic stimulation to assessment of brain connectivity and networks. <i>Clinical Neurophysiology</i> , 2017, 128, 2125-2139.	0.7	119
1263	Fluctuations When Driving Between Nonequilibrium Steady States. <i>Journal of Statistical Physics</i> , 2017, 168, 873-918.	0.5	12
1264	Dynamic coupling between fMRI local connectivity and interictal EEG in focal epilepsy: A wavelet analysis approach. <i>Human Brain Mapping</i> , 2017, 38, 5356-5374.	1.9	23
1265	The anatomical scaffold underlying the functional centrality of known cortical hubs. <i>Human Brain Mapping</i> , 2017, 38, 5141-5160.	1.9	13
1266	Potential avenues for exercise to activate episodic memory-related pathways: a narrative review. <i>European Journal of Neuroscience</i> , 2017, 46, 2067-2077.	1.2	118
1267	Genome integrity and disease prevention in the nervous system. <i>Genes and Development</i> , 2017, 31, 1180-1194.	2.7	117
1268	More than the Useful Field: Considering peripheral vision in driving. <i>Applied Ergonomics</i> , 2017, 65, 316-325.	1.7	101
1269	Anti-correlations in the degree distribution increase stimulus detection performance in noisy spiking neural networks. <i>Journal of Computational Neuroscience</i> , 2017, 42, 87-106.	0.6	7
1270	Oligodendrocytes Do Not Export NAA-Derived Aspartate In Vitro. <i>Neurochemical Research</i> , 2017, 42, 827-837.	1.6	15

#	ARTICLE	IF	CITATIONS
1271	Efficiency of rate and latency coding with respect to metabolic cost and time. <i>BioSystems</i> , 2017, 161, 31-40.	0.9	0
1272	Altered brain metabolic connectivity at multiscale level in early Parkinson's disease. <i>Scientific Reports</i> , 2017, 7, 4256.	1.6	64
1273	Neural inhibition can explain negative BOLD responses: A mechanistic modelling and fMRI study. <i>NeuroImage</i> , 2017, 158, 219-231.	2.1	47
1274	Resource-efficient perceptron has sparse synaptic weight distribution. , 2017, , .		2
1275	Acetyl-CoA production from pyruvate is not necessary for preservation of myelin. <i>Glia</i> , 2017, 65, 1626-1639.	2.5	24
1276	Transient global cerebral ischemia induces rapid and sustained reorganization of synaptic structures. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2017, 37, 2756-2767.	2.4	36
1277	Homeostatic dynamics, hysteresis and synchronization in a low-dimensional model of burst suppression. <i>Journal of Mathematical Biology</i> , 2017, 74, 1011-1035.	0.8	12
1278	A Spiking Working Memory Model Based on Hebbian Short-Term Potentiation. <i>Journal of Neuroscience</i> , 2017, 37, 83-96.	1.7	88
1279	Hierarchical Address Event Routing for Reconfigurable Large-Scale Neuromorphic Systems. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2017, 28, 2408-2422.	7.2	88
1280	Regulation of autophagy by mitochondrial phospholipids in health and diseases. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2017, 1862, 114-129.	1.2	61
1281	Effective Mechanism for Synthesis of Neurotransmitter Glutamate and its Loading into Synaptic Vesicles. <i>Neurochemical Research</i> , 2017, 42, 64-76.	1.6	12
1282	Synaptic reliability and temporal precision are achieved via high quantal content and effective replenishment: auditory brainstem versus hippocampus. <i>Journal of Physiology</i> , 2017, 595, 839-864.	1.3	28
1283	Glycogen: Multiple Roles in the CNS. <i>Neuroscientist</i> , 2017, 23, 356-363.	2.6	8
1284	Hyperpolarized MRS: New tool to study real-time brain function and metabolism. <i>Analytical Biochemistry</i> , 2017, 529, 270-277.	1.1	16
1285	Vision as a Beachhead. <i>Biological Psychiatry</i> , 2017, 81, 832-837.	0.7	28
1286	Assessing the mean strength and variations of the time-to-time fluctuations of resting-state brain activity. <i>Medical and Biological Engineering and Computing</i> , 2017, 55, 631-640.	1.6	14
1287	Energy Model of Neuron Activation. <i>Neural Computation</i> , 2017, 29, 502-518.	1.3	1
1288	Computational Flux Balance Analysis Predicts that Stimulation of Energy Metabolism in Astrocytes and their Metabolic Interactions with Neurons Depend on Uptake of K ⁺ Rather than Glutamate. <i>Neurochemical Research</i> , 2017, 42, 202-216.	1.6	39

#	ARTICLE	IF	CITATIONS
1289	Binaural blood flow control by astrocytes: listening to synapses and the vasculature. <i>Journal of Physiology</i> , 2017, 595, 1885-1902.	1.3	82
1290	Impact of Structural Plasticity on Memory Formation and Decline. , 2017, , 361-386.		7
1291	Less hippocampal neuronal death in young gerbils following transient global cerebral ischemia is associated with long-term maintenance of insulin-like growth factor-1 and its receptors in the hippocampal CA1 region. <i>Molecular Medicine Reports</i> , 2018, 17, 3055-3061.	1.1	10
1292	The Oxygen Paradox, the French Paradox, and age-related diseases. <i>GeroScience</i> , 2017, 39, 499-550.	2.1	59
1293	Remote sensing image classification based on convolutional neural networks with two-fold sparse regularization. , 2017, , .		6
1294	Energy use constrains brain information processing. , 2017, , .		9
1295	The Structure and Function of the Na,K-ATPase Isoforms in Health and Disease. <i>Frontiers in Physiology</i> , 2017, 8, 371.	1.3	334
1296	Fluorescence lifetime microscopy of NADH distinguishes alterations in cerebral metabolism in vivo. <i>Biomedical Optics Express</i> , 2017, 8, 2368.	1.5	60
1297	Mitochondrial Metabolism-Mediated Regulation of Adult Neurogenesis. <i>Brain Plasticity</i> , 2017, 3, 73-87.	1.9	74
1298	Metabolic and Homeostatic Changes in Seizures and Acquired Epilepsy—Mitochondria, Calcium Dynamics and Reactive Oxygen Species. <i>International Journal of Molecular Sciences</i> , 2017, 18, 1935.	1.8	84
1299	Insulin Resistance and Alzheimer's Disease: Bioenergetic Linkages. <i>Frontiers in Aging Neuroscience</i> , 2017, 9, 345.	1.7	188
1300	Reduced Synaptic Vesicle Recycling during Hypoxia in Cultured Cortical Neurons. <i>Frontiers in Cellular Neuroscience</i> , 2017, 11, 32.	1.8	17
1301	Dendritic Properties Control Energy Efficiency of Action Potentials in Cortical Pyramidal Cells. <i>Frontiers in Cellular Neuroscience</i> , 2017, 11, 265.	1.8	22
1302	Mechanisms of Hierarchical Cortical Maturation. <i>Frontiers in Cellular Neuroscience</i> , 2017, 11, 272.	1.8	26
1303	Determine Neuronal Tuning Curves by Exploring Optimum Firing Rate Distribution for Information Efficiency. <i>Frontiers in Computational Neuroscience</i> , 2017, 11, 10.	1.2	3
1304	Lactate Shuttles in Neuroenergetics—Homeostasis, Allostasis and Beyond. <i>Frontiers in Neuroscience</i> , 2017, 11, 43.	1.4	142
1305	Energetic Constraints Produce Self-sustained Oscillatory Dynamics in Neuronal Networks. <i>Frontiers in Neuroscience</i> , 2017, 11, 80.	1.4	11
1306	A 4-fj/Spike Artificial Neuron in 65 nm CMOS Technology. <i>Frontiers in Neuroscience</i> , 2017, 11, 123.	1.4	126

#	ARTICLE	IF	CITATIONS
1307	How Energy Metabolism Supports Cerebral Function: Insights from 13C Magnetic Resonance Studies In vivo. <i>Frontiers in Neuroscience</i> , 2017, 11, 288.	1.4	64
1308	The Energy Metabolism Dysfunction in Psychiatric Disorders Postmortem Brains: Focus on Proteomic Evidence. <i>Frontiers in Neuroscience</i> , 2017, 11, 493.	1.4	108
1310	Neural Energy Supply-Consumption Properties Based on Hodgkin-Huxley Model. <i>Neural Plasticity</i> , 2017, 2017, 1-11.	1.0	35
1311	The Active Isopotential Cell. , 2017, , 33-52.		0
1312	The Quasi-Active Isopotential Cell. , 2017, , 53-71.		0
1313	Neurovascular Coupling, the BOLD Signal and MRI. , 2017, , 255-306.		0
1314	Spatial Memory in Food-Hoarding Animals \hat{a} t. , 2017, , 285-307.		1
1315	Differential Proteomics of the Cerebral Cortex of Juvenile, Adult and Aged Rats: An Ontogenetic Study. <i>Journal of Proteomics and Bioinformatics</i> , 2017, 10, .	0.4	3
1316	Neurovascular Coupling: A Unifying Theory for Post-Concussion Syndrome Treatment and Functional Neuroimaging. <i>Journal of Neurology & Neurophysiology</i> , 2017, 08, .	0.1	2
1317	Quantitative Nucleotide Level Analysis of Regulation of Translation in Response to Depolarization of Cultured Neural Cells. <i>Frontiers in Molecular Neuroscience</i> , 2017, 10, 9.	1.4	12
1318	The Role of Glucagon-Like Peptide 1 (GLP1) in Type 3 Diabetes: GLP-1 Controls Insulin Resistance, Neuroinflammation and Neurogenesis in the Brain. <i>International Journal of Molecular Sciences</i> , 2017, 18, 2493.	1.8	52
1319	White Matter Expansion. , 2017, , 291-308.		2
1320	Metabolic Disturbances: Hypo- and Hyperglycemic Seizures In Vivo and In Vitro a. , 2017, , 941-949.		2
1321	Fluctuations of extracellular glucose and lactate in the mouse primary visual cortex during visual stimulation. <i>Behavioural Brain Research</i> , 2018, 344, 91-102.	1.2	7
1322	Radionuclide Imaging of Cerebral Blood Flow. , 2018, , 451-469.		0
1323	SpiNNaker: Event-Based Simulation \hat{a} Quantitative Behavior. <i>IEEE Transactions on Multi-Scale Computing Systems</i> , 2018, 4, 450-462.	2.5	5
1325	A computational model integrating brain electrophysiology and metabolism highlights the key role of extracellular potassium and oxygen. <i>Journal of Theoretical Biology</i> , 2018, 446, 238-258.	0.8	16
1326	Brain alpha \hat{a} mylase: a novel energy regulator important in Alzheimer disease?. <i>Brain Pathology</i> , 2018, 28, 920-932.	2.1	33

#	ARTICLE	IF	CITATIONS
1327	Spike timing precision of neuronal circuits. <i>Journal of Computational Neuroscience</i> , 2018, 44, 341-362.	0.6	8
1328	Mapping pathologic circuitry in schizophrenia. <i>Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn</i> , 2018, 150, 389-417.	1.0	44
1329	Functional energetic responses and individual variance of the human brain revealed by quantitative imaging of adenosine triphosphate production rates. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2018, 38, 959-972.	2.4	17
1330	Transitional correlation between inner-membrane potential and ATP levels of neuronal mitochondria. <i>Scientific Reports</i> , 2018, 8, 2993.	1.6	25
1331	Neurovascular dysfunction in dementia – human cellular models and molecular mechanisms. <i>Clinical Science</i> , 2018, 132, 399-418.	1.8	23
1332	Free energy dissipation of the spontaneous gating of a single voltage-gated potassium channel. <i>Chaos</i> , 2018, 28, 023103.	1.0	2
1333	Sex- and sex hormone-related variations in energy-metabolic frontal brain asymmetries: A magnetic resonance spectroscopy study. <i>NeuroImage</i> , 2018, 172, 817-825.	2.1	24
1334	13 reasons why the brain is susceptible to oxidative stress. <i>Redox Biology</i> , 2018, 15, 490-503.	3.9	738
1335	Ghrelin Causes a Decline in GABA Release by Reducing Fatty Acid Oxidation in Cortex. <i>Molecular Neurobiology</i> , 2018, 55, 7216-7228.	1.9	10
1336	Glia Maturation Factor Dependent Inhibition of Mitochondrial PGC-1 β Triggers Oxidative Stress-Mediated Apoptosis in N27 Rat Dopaminergic Neuronal Cells. <i>Molecular Neurobiology</i> , 2018, 55, 7132-7152.	1.9	30
1337	Keeping the home fires burning: AMP-activated protein kinase. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20170774.	1.5	137
1338	The Energy Landscape of Neurophysiological Activity Implicit in Brain Network Structure. <i>Scientific Reports</i> , 2018, 8, 2507.	1.6	81
1339	An auditory brainstem nucleus as a model system for neuronal metabolic demands. <i>European Journal of Neuroscience</i> , 2018, 47, 222-235.	1.2	11
1340	Coupled Imaging with [18F]FBB and [18F]FDG in AD Subjects Show a Selective Association Between Amyloid Burden and Cortical Dysfunction in the Brain. <i>Molecular Imaging and Biology</i> , 2018, 20, 659-666.	1.3	14
1341	Understanding Miro GTPases: Implications in the Treatment of Neurodegenerative Disorders. <i>Molecular Neurobiology</i> , 2018, 55, 7352-7365.	1.9	31
1342	Glucose and lactate as metabolic constraints on presynaptic transmission at an excitatory synapse. <i>Journal of Physiology</i> , 2018, 596, 1699-1721.	1.3	30
1343	Pathways to Brain Aging and Their Modifiers: Free-Radical-Induced Energetic and Neural Decline in Senescence (FRIENDS) Model - A Mini-Review. <i>Gerontology</i> , 2018, 64, 49-57.	1.4	88
1344	The CAPOS mutation in ATP1A3 alters Na/K-ATPase function and results in auditory neuropathy which has implications for management. <i>Human Genetics</i> , 2018, 137, 111-127.	1.8	24

#	ARTICLE	IF	CITATIONS
1345	Genetically Encoded Glutamate Indicators with Altered Color and Topology. ACS Chemical Biology, 2018, 13, 1832-1837.	1.6	67
1346	The Stress-Induced Transcription Factor NR4A1 Adjusts Mitochondrial Function and Synapse Number in Prefrontal Cortex. Journal of Neuroscience, 2018, 38, 1335-1350.	1.7	57
1347	Reverse NCX Attenuates Cellular Sodium Loading in Metabolically Compromised Cortex. Cerebral Cortex, 2018, 28, 4264-4280.	1.6	44
1348	Sparse Temporal Encoding of Visual Features for Robust Object Recognition by Spiking Neurons. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 5823-5833.	7.2	24
1349	Topology of Functional Connectivity and Hub Dynamics in the Beta Band As Temporal Prior for Natural Vision in the Human Brain. Journal of Neuroscience, 2018, 38, 3858-3871.	1.7	31
1350	Improving energy consumption of pattern recognition by combining processor-centric and bio-inspired considerations. Biologically Inspired Cognitive Architectures, 2018, 23, 54-63.	0.9	0
1351	Linearization of excitatory synaptic integration at no extra cost. Journal of Computational Neuroscience, 2018, 44, 173-188.	0.6	4
1352	An approach to variable-order prediction via multiple distal dendrites of neurons. Neural Computing and Applications, 2018, 29, 1-12.	3.2	48
1353	Evaluating the gray and white matter energy budgets of human brain function. Journal of Cerebral Blood Flow and Metabolism, 2018, 38, 1339-1353.	2.4	131
1354	Explanation in Computational Neuroscience: Causal and Non-causal. British Journal for the Philosophy of Science, 2018, 69, 849-880.	1.4	39
1355	Cortical cores in network dynamics. NeuroImage, 2018, 180, 370-382.	2.1	93
1356	Coordinate invariance as a fundamental constraint on the form of stimulus-specific information measures. Biological Cybernetics, 2018, 112, 13-23.	0.6	2
1357	Efficiency: an underlying principle of learning?. Reviews in the Neurosciences, 2018, 29, 183-197.	1.4	3
1358	Multi-modal fitness and cognitive training to enhance fluid intelligence. Intelligence, 2018, 66, 32-43.	1.6	27
1359	The hypoxia-tolerant vertebrate brain: Arresting synaptic activity. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2018, 224, 61-70.	0.7	42
1360	Mitochondria-Bound Hexokinase (mt-HK) Activity Differ in Cortical and Hypothalamic Synaptosomes: Differential Role of mt-HK in H2O2 Depuration. Molecular Neurobiology, 2018, 55, 5889-5900.	1.9	9
1361	Astrocytic and neuronal oxidative metabolism are coupled to the rate of glutamate-glutamine cycle in the tree shrew visual cortex. Glia, 2018, 66, 477-491.	2.5	45
1362	The Role of Astrocytes in Tumor Growth and Progression. , 0, , .		6

#	ARTICLE	IF	CITATIONS
1363	Effect of Neural Intrinsic Dynamics on Ionic Energy Consumptions in Action Potential Generations. , 2018, , .		0
1364	Highly Heterogeneous Excitatory Connections Require Less Amount of Noise to Sustain Firing Activities in Cortical Networks. <i>Frontiers in Computational Neuroscience</i> , 2018, 12, 104.	1.2	2
1365	In vivo X-Nuclear MRS Imaging Methods for Quantitative Assessment of Neuroenergetic Biomarkers in Studying Brain Function and Aging. <i>Frontiers in Aging Neuroscience</i> , 2018, 10, 394.	1.7	11
1366	Human Miro Proteins Act as NTP Hydrolases through a Novel, Non-Canonical Catalytic Mechanism. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3839.	1.8	13
1367	Modulation of voltage-dependent K ⁺ conductances in photoreceptors trades off investment in contrast gain for bandwidth. <i>PLoS Computational Biology</i> , 2018, 14, e1006566.	1.5	4
1369	Neuronal Synchronization Can Control the Energy Efficiency of Inter-Spike Interval Coding. <i>IEEE Transactions on Molecular, Biological, and Multi-Scale Communications</i> , 2018, 4, 221-236.	1.4	5
1370	Effect of starvation on brain glucose metabolism and 18F-2-fluoro-2-deoxyglucose uptake: an experimental in-vivo and ex-vivo study. <i>EJNMMI Research</i> , 2018, 8, 44.	1.1	14
1371	Analyzing Neuronal Mitochondria in vivo Using Fluorescent Reporters in Zebrafish. <i>Frontiers in Cell and Developmental Biology</i> , 2018, 6, 144.	1.8	57
1372	Comparing Bayesian and non-Bayesian accounts of human confidence reports. <i>PLoS Computational Biology</i> , 2018, 14, e1006572.	1.5	77
1373	Constraints of Metabolic Energy on the Number of Synaptic Connections of Neurons and the Density of Neuronal Networks. <i>Frontiers in Computational Neuroscience</i> , 2018, 12, 91.	1.2	11
1374	AMP-activated Protein Kinase Controls Immediate Early Genes Expression Following Synaptic Activation Through the PKA/CREB Pathway. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3716.	1.8	29
1375	Evolution of Excitationâ€™Inhibition Ratio in Cortical Cultures Exposed to Hypoxia. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 183.	1.8	15
1376	Function and energy consumption constrain neuronal biophysics in a canonical computation: Coincidence detection. <i>PLoS Computational Biology</i> , 2018, 14, e1006612.	1.5	14
1377	Photoreceptive retinal ganglion cells control the information rate of the optic nerve. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E11817-E11826.	3.3	39
1378	Sleep and Wake Affect Glycogen Content and Turnover at Perisynaptic Astrocytic Processes. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 308.	1.8	31
1379	Molecular Communication of a Dying Neuron in Stroke. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2834.	1.8	109
1380	Synaptosome Bioenergetics and Calcium Handling: Aging Response. <i>Neuromethods</i> , 2018, , 131-151.	0.2	1
1381	Brain imaging in comatose survivors of cardiac arrest: Pathophysiological correlates and prognostic properties. <i>Resuscitation</i> , 2018, 133, 124-136.	1.3	73

#	ARTICLE	IF	CITATIONS
1382	Choice overload reduces neural signatures of choice set value in dorsal striatum and anterior cingulate cortex. <i>Nature Human Behaviour</i> , 2018, 2, 925-935.	6.2	29
1383	Dexpramipexole enhances hippocampal synaptic plasticity and memory in the rat. <i>Neuropharmacology</i> , 2018, 143, 306-316.	2.0	11
1384	Subthalamic nucleus pathology contributes to repetitive behavior expression and is reversed by environmental enrichment. <i>Genes, Brain and Behavior</i> , 2018, 17, e12468.	1.1	15
1385	AMP-Activated Protein Kinase Is Essential for the Maintenance of Energy Levels during Synaptic Activation. <i>IScience</i> , 2018, 9, 1-13.	1.9	59
1386	Regulation of Neuronal Na,K-ATPase by Extracellular Scaffolding Proteins. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2214.	1.8	8
1387	Effects of Metabolic Energy on Synaptic Transmission and Dendritic Integration in Pyramidal Neurons. <i>Frontiers in Computational Neuroscience</i> , 2018, 12, 79.	1.2	17
1388	Synaptic Excitatory-Inhibitory Balance Underlying Efficient Neural Coding. <i>Advances in Neurobiology</i> , 2018, 21, 85-100.	1.3	1
1389	Advances in PET Methodology. <i>International Review of Neurobiology</i> , 2018, 141, 3-30.	0.9	7
1390	Gating Sensory Noise in a Spiking Subtractive LSTM. <i>Lecture Notes in Computer Science</i> , 2018, , 284-293.	1.0	2
1391	Spatial brain networks. <i>Comptes Rendus Physique</i> , 2018, 19, 253-264.	0.3	9
1392	Control of movement vigor and decision making during foraging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E10476-E10485.	3.3	83
1393	Optical imaging and modulation of neurovascular responses. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2018, 38, 2057-2072.	2.4	17
1394	Setting the stage for a role of the postsynaptic proteome in inherited neurometabolic disorders. <i>Journal of Inherited Metabolic Disease</i> , 2018, 41, 1093-1101.	1.7	3
1395	A model for studying the energetics of sustained high frequency firing. <i>PLoS ONE</i> , 2018, 13, e0196508.	1.1	2
1396	Human Immunodeficiency Virus Type 1 gp120 and Tat Induce Mitochondrial Fragmentation and Incomplete Mitophagy in Human Neurons. <i>Journal of Virology</i> , 2018, 92, .	1.5	71
1397	Population Dynamics and Long-Term Trajectory of Dendritic Spines. <i>Frontiers in Synaptic Neuroscience</i> , 2018, 10, 25.	1.3	1
1398	Metabolic regulation of synaptic activity. <i>Reviews in the Neurosciences</i> , 2018, 29, 825-835.	1.4	16
1399	Glutamate metabolism in cerebral mitochondria after ischemia and post-ischemic recovery during aging: relationships with brain energy metabolism. <i>Journal of Neurochemistry</i> , 2018, 146, 416-428.	2.1	20

#	ARTICLE	IF	CITATIONS
1400	An efficient coding approach to the debate on grounded cognition. <i>Synthese</i> , 2018, 195, 5245-5269.	0.6	7
1401	Analysis of respiratory capacity in brain tissue preparations: high-resolution respirometry for intact hippocampal slices. <i>Analytical Biochemistry</i> , 2018, 551, 43-50.	1.1	11
1402	Decoupling of Local Metabolic Activity and Functional Connectivity Links to Amyloid in Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2018, 64, 405-415.	1.2	21
1403	Integrative Characterization of the R6/2 Mouse Model of Huntington's Disease Reveals Dysfunctional Astrocyte Metabolism. <i>Cell Reports</i> , 2018, 23, 2211-2224.	2.9	79
1404	Astrocytes and the Warning Signs of Intracerebral Hemorrhagic Stroke. <i>Neural Plasticity</i> , 2018, 2018, 1-11.	1.0	25
1405	Synchronized Astrocytic Ca ²⁺ Responses in Neurovascular Coupling during Somatosensory Stimulation and for the Resting State. <i>Cell Reports</i> , 2018, 23, 3878-3890.	2.9	55
1406	Hypoexcitability precedes denervation in the large fast-contracting motor units in two unrelated mouse models of ALS. <i>ELife</i> , 2018, 7, .	2.8	111
1407	Reduced task durations in functional PET imaging with [18F]FDG approaching that of functional MRI. <i>NeuroImage</i> , 2018, 181, 323-330.	2.1	59
1408	Advances in Cognitive Neurodynamics (VI). <i>Advances in Cognitive Neurodynamics</i> , 2018, , .	0.1	2
1409	Glia-neuron energy metabolism in health and diseases: New insights into the role of nervous system metabolic transporters. <i>Experimental Neurology</i> , 2018, 309, 23-31.	2.0	123
1410	Ketogenic diet as a metabolic therapy for mood disorders: Evidence and developments. <i>Neuroscience and Biobehavioral Reviews</i> , 2018, 94, 11-16.	2.9	102
1411	Optogenetic interrogation of neurovascular coupling in the cerebral cortex of transgenic mice. <i>Journal of Neural Engineering</i> , 2018, 15, 056033.	1.8	10
1412	The Role of Biomaterials as Angiogenic Modulators of Spinal Cord Injury: Mimetics of the Spinal Cord, Cell and Angiogenic Factor Delivery Agents. <i>Frontiers in Pharmacology</i> , 2018, 9, 164.	1.6	34
1413	Functional Magnetic Resonance Spectroscopy: The "New" MRS for Cognitive Neuroscience and Psychiatry Research. <i>Frontiers in Psychiatry</i> , 2018, 9, 76.	1.3	85
1414	Physiology of Astroglia. <i>Physiological Reviews</i> , 2018, 98, 239-389.	13.1	1,044
1415	The Axon-Myelin Unit in Development and Degenerative Disease. <i>Frontiers in Neuroscience</i> , 2018, 12, 467.	1.4	161
1416	Autophosphorylated CaMKII Facilitates Spike Propagation in Rat Optic Nerve. <i>Journal of Neuroscience</i> , 2018, 38, 8087-8105.	1.7	4
1417	Efficient Coding and Energy Efficiency Are Promoted by Balanced Excitatory and Inhibitory Synaptic Currents in Neuronal Network. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 123.	1.8	12

#	ARTICLE	IF	CITATIONS
1418	Understanding Spreading Depression from Headache to Sudden Unexpected Death. <i>Frontiers in Neurology</i> , 2018, 9, 19.	1.1	51
1419	Synaptic E-I Balance Underlies Efficient Neural Coding. <i>Frontiers in Neuroscience</i> , 2018, 12, 46.	1.4	112
1420	The Energy Coding of a Structural Neural Network Based on the Hodgkin-Huxley Model. <i>Frontiers in Neuroscience</i> , 2018, 12, 122.	1.4	47
1421	The Relationship Between Dopamine Neurotransmitter Dynamics and the Blood-Oxygen-Level-Dependent (BOLD) Signal: A Review of Pharmacological Functional Magnetic Resonance Imaging. <i>Frontiers in Neuroscience</i> , 2018, 12, 238.	1.4	26
1422	An Energy Model of Place Cell Network in Three Dimensional Space. <i>Frontiers in Neuroscience</i> , 2018, 12, 264.	1.4	16
1423	Performance Comparison of the Digital Neuromorphic Hardware SpiNNaker and the Neural Network Simulation Software NEST for a Full-Scale Cortical Microcircuit Model. <i>Frontiers in Neuroscience</i> , 2018, 12, 291.	1.4	100
1424	Brain Energy and Oxygen Metabolism: Emerging Role in Normal Function and Disease. <i>Frontiers in Molecular Neuroscience</i> , 2018, 11, 216.	1.4	237
1425	Hypoxia-Induced MicroRNA-210 Targets Neurodegenerative Pathways. <i>Non-coding RNA</i> , 2018, 4, 10.	1.3	18
1426	3.15 Neuronal Energy Production. , 2018, , 638-672.		0
1427	Ambient but not local lactate underlies neuronal tolerance to prolonged glucose deprivation. <i>PLoS ONE</i> , 2018, 13, e0195520.	1.1	10
1428	The Role of Endothelial Ca ²⁺ Signaling in Neurovascular Coupling: A View from the Lumen. <i>International Journal of Molecular Sciences</i> , 2018, 19, 938.	1.8	71
1429	A New Tool for Clinical Neuroscience—Synaptic Imaging. <i>JAMA Neurology</i> , 2018, 75, 1181.	4.5	5
1430	Complementary Tuning of Na ⁺ and K ⁺ Channel Gating Underlies Fast and Energy-Efficient Action Potentials in GABAergic Interneuron Axons. <i>Neuron</i> , 2018, 98, 156-165.e6.	3.8	57
1431	Molecular imaging in dementia: Past, present, and future. <i>Alzheimer's and Dementia</i> , 2018, 14, 1522-1552.	0.4	68
1432	Adaptive coding for dynamic sensory inference. <i>ELife</i> , 2018, 7, .	2.8	61
1433	New Targets for Parkinson's Disease: Adhesion G Protein-Coupled Receptor B1 is Downregulated by AMP-Activated Protein Kinase Activation. <i>OMICS A Journal of Integrative Biology</i> , 2018, 22, 493-501.	1.0	7
1434	Fueling thought: Management of glycolysis and oxidative phosphorylation in neuronal metabolism. <i>Journal of Cell Biology</i> , 2018, 217, 2235-2246.	2.3	248
1435	A Quantitative Study on the Distribution of Mitochondria in the Neuropil of the Juvenile Rat Somatosensory Cortex. <i>Cerebral Cortex</i> , 2018, 28, 3673-3684.	1.6	39

#	ARTICLE	IF	CITATIONS
1436	Voltage- and Branch-Specific Climbing Fiber Responses in Purkinje Cells. <i>Cell Reports</i> , 2018, 24, 1536-1549.	2.9	44
1437	Synapse Pruning: Mitochondrial ROS with Their Hands on the Shears. <i>BioEssays</i> , 2018, 40, 1800031.	1.2	36
1438	CPT1a-Dependent Long-Chain Fatty Acid Oxidation Contributes to Maintaining Glucagon Secretion from Pancreatic Islets. <i>Cell Reports</i> , 2018, 23, 3300-3311.	2.9	71
1439	Sum Rate of MISO Neuro-Spike Communication Channel With Constant Spiking Threshold. <i>IEEE Transactions on Nanobioscience</i> , 2018, 17, 342-351.	2.2	18
1440	Basic functional trade-offs in cognition: An integrative framework. <i>Cognition</i> , 2018, 179, 56-70.	1.1	44
1441	Chronic Dysregulation of Cortical and Subcortical Metabolism After Experimental Traumatic Brain Injury. <i>Molecular Neurobiology</i> , 2019, 56, 2908-2921.	1.9	17
1442	Modulation of Glucose Metabolism in Hippocampal Neurons by Adiponectin and Resistin. <i>Molecular Neurobiology</i> , 2019, 56, 3024-3037.	1.9	34
1443	Functional MRI of brain physiology in aging and neurodegenerative diseases. <i>NeuroImage</i> , 2019, 187, 209-225.	2.1	55
1444	Metabolic constraints on synaptic learning and memory. <i>Journal of Neurophysiology</i> , 2019, 122, 1473-1490.	0.9	28
1445	A New Nonlinear Sparse Component Analysis for a Biologically Plausible Model of Neurons. <i>Neural Computation</i> , 2019, 31, 1853-1873.	1.3	0
1446	Plasma metabolites related to cellular energy metabolism are altered in adults with Down syndrome and Alzheimer's disease. <i>Developmental Neurobiology</i> , 2019, 79, 622-638.	1.5	29
1447	The energetic brain "A review from students to students. <i>Journal of Neurochemistry</i> , 2019, 151, 139-165.	2.1	148
1448	Cerebral Blood Flow in Community-Based Older Twins Is Moderately Heritable: An Arterial Spin Labeling Perfusion Imaging Study. <i>Frontiers in Aging Neuroscience</i> , 2019, 11, 169.	1.7	2
1449	Identifying Buildings with Ramp Entrances Using Convolutional Neural Networks. , 2019, , .		2
1450	Copper imbalance in Alzheimer's disease: Convergence of the chemistry and the clinic. <i>Coordination Chemistry Reviews</i> , 2019, 397, 168-187.	9.5	65
1451	Functional Oxides for Photoneuromorphic Engineering: Toward a Solar Brain. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900471.	1.9	31
1452	Considerable differences between auditory medulla, auditory midbrain, and hippocampal synapses during sustained high-frequency stimulation: Exceptional vesicle replenishment restricted to sound localization circuit. <i>Hearing Research</i> , 2019, 381, 107771.	0.9	8
1453	Emulation of synaptic behaviors using amorphous indium-gallium-zinc-oxide-based photoelectric synaptic devices. <i>Japanese Journal of Applied Physics</i> , 2019, 58, 090607.	0.8	4

#	ARTICLE	IF	CITATIONS
1454	Purinergic Signaling in the Vertebrate Olfactory System. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 112.	1.8	22
1455	Information processing in the LGN: a comparison of neural codes and cell types. <i>Biological Cybernetics</i> , 2019, 113, 453-464.	0.6	5
1456	Energy Metabolism of Neural Cells Under the Control of Phospholipases A2 and Docosahexaenoic Acid. , 2019, , 131-141.		0
1457	Obesity-induced type 2 diabetes impairs neurological recovery after stroke in correlation with decreased neurogenesis and persistent atrophy of parvalbumin-positive interneurons. <i>Clinical Science</i> , 2019, 133, 1367-1386.	1.8	21
1458	Residual learning of deep convolutional neural networks for image denoising. <i>Journal of Intelligent and Fuzzy Systems</i> , 2019, 37, 2809-2818.	0.8	13
1459	Pleiotropic Mitochondria: The Influence of Mitochondria on Neuronal Development and Disease. <i>Journal of Neuroscience</i> , 2019, 39, 8200-8208.	1.7	124
1460	Energetic substrate availability regulates synchronous activity in an excitatory neural network. <i>PLoS ONE</i> , 2019, 14, e0220937.	1.1	13
1461	In vivo ¹³ C and ¹ H- ¹³ C MRS studies of neuroenergetics and neurotransmitter cycling, applications to neurological and psychiatric disease and brain cancer. <i>NMR in Biomedicine</i> , 2019, 32, e4172.	1.6	34
1462	Development of a Model to Test Whether Glycogenolysis Can Support Astrocytic Energy Demands of Na ⁺ , K ⁺ -ATPase and Glutamate-Glutamine Cycling, Sparing an Equivalent Amount of Glucose for Neurons. <i>Advances in Neurobiology</i> , 2019, 23, 385-433.	1.3	9
1463	Normal Cerebral Oxygen Consumption Despite Elevated Cerebral Blood Flow in Adolescents With Bipolar Disorder: Putative Neuroimaging Evidence of Anomalous Energy Metabolism. <i>Frontiers in Psychiatry</i> , 2019, 10, 739.	1.3	15
1464	Effects of Resistance Exercise on Cerebral Redox Regulation and Cognition: An Interplay Between Muscle and Brain. <i>Antioxidants</i> , 2019, 8, 529.	2.2	26
1465	When Does Alzheimer's Disease Really Start? The Role of Biomarkers. <i>International Journal of Molecular Sciences</i> , 2019, 20, 5536.	1.8	57
1466	Plugging in to Human Memory: Advantages, Challenges, and Insights from Human Single-Neuron Recordings. <i>Cell</i> , 2019, 179, 1015-1032.	13.5	42
1467	The Impact of the Geometric Correction Scheme on MEC Functional Topology at Rest. <i>Frontiers in Neuroscience</i> , 2019, 13, 1114.	1.4	15
1468	Large-Artery Stiffness in Health and Disease. <i>Journal of the American College of Cardiology</i> , 2019, 74, 1237-1263.	1.2	512
1469	Synaptic Information Transmission in a Two-State Model of Short-Term Facilitation. <i>Entropy</i> , 2019, 21, 756.	1.1	3
1470	Expression of Na/K-ATPase subunits in the human cochlea: a confocal and super-resolution microscopy study with special reference to auditory nerve excitation and cochlear implantation. <i>Uppsala Journal of Medical Sciences</i> , 2019, 124, 168-179.	0.4	13
1471	Creatine for the Treatment of Depression. <i>Biomolecules</i> , 2019, 9, 406.	1.8	36

#	ARTICLE	IF	CITATIONS
1472	On the Usefulness of Statistical Normalisation of Bottleneck Features for Speech Recognition. , 2019, , .		2
1473	Non-adiabatic membrane voltage fluctuations driven by two ligand-gated ion channels. <i>Chaos</i> , 2019, 29, 073108.	1.0	2
1474	Energy-efficient information transfer at thalamocortical synapses. <i>PLoS Computational Biology</i> , 2019, 15, e1007226.	1.5	22
1475	Mitochondrial dysfunction and role in spreading depolarization and seizure. <i>Journal of Computational Neuroscience</i> , 2019, 47, 91-108.	0.6	6
1476	The Energy Homeostasis Principle: Neuronal Energy Regulation Drives Local Network Dynamics Generating Behavior. <i>Frontiers in Computational Neuroscience</i> , 2019, 13, 49.	1.2	74
1477	An Adaptive Memory Management Strategy Towards Energy Efficient Machine Inference in Event-Driven Neuromorphic Accelerators. , 2019, , .		1
1478	Neurovascular Interactions in the Nervous System. <i>Annual Review of Cell and Developmental Biology</i> , 2019, 35, 615-635.	4.0	67
1479	The cerebral angiome: High resolution MicroCT imaging of the whole brain cerebrovasculature in female and male mice. <i>NeuroImage</i> , 2019, 202, 116109.	2.1	25
1480	Age and Ketogenic Diet Have Dissociable Effects on Synapse-Related Gene Expression Between Hippocampal Subregions. <i>Frontiers in Aging Neuroscience</i> , 2019, 11, 239.	1.7	15
1481	Neural signatures of temporal regularity processing in sounds differ between younger and older adults. <i>Neurobiology of Aging</i> , 2019, 83, 73-85.	1.5	34
1482	Neurofeedback for Pediatric Emotional Dysregulation. , 2019, , 277-311.		0
1483	Effective connectivity in the default mode network is distinctively disrupted in Alzheimer's diseaseâ€™A simultaneous restingâ€state FDGâ€PET/fMRI study. <i>Human Brain Mapping</i> , 2021, 42, 4134-4143.	1.9	43
1484	Distinct differences in rates of oxygen consumption and ATP synthesis of regionally isolated nonâ€synaptic mouse brain mitochondria. <i>Journal of Neuroscience Research</i> , 2019, 97, 961-974.	1.3	22
1485	Glycogen distribution in mouse hippocampus. <i>Journal of Neuroscience Research</i> , 2019, 97, 923-932.	1.3	20
1486	The Role of Astrocytes in Neurotransmitter Uptake and Brain Metabolism. <i>Springer Series in Computational Neuroscience</i> , 2019, , 309-328.	0.3	1
1487	Chronic insulinopenia/hyperglycemia decreases cannabinoid CB1 receptor density and impairs glucose uptake in the mouse forebrain. <i>Brain Research Bulletin</i> , 2019, 147, 101-109.	1.4	4
1488	How Far can Neural Correlations Reduce Uncertainty? Comparison of Information Transmission Rates for Markov and Bernoulli Processes. <i>International Journal of Neural Systems</i> , 2019, 29, 1950003.	3.2	11
1489	Neural energy mechanism and neurodynamics of memory transformation. <i>Nonlinear Dynamics</i> , 2019, 97, 697-714.	2.7	16

#	ARTICLE	IF	CITATIONS
1490	Dynamical exploration of the repertoire of brain networks at rest is modulated by psilocybin. <i>NeuroImage</i> , 2019, 199, 127-142.	2.1	152
1491	A hypothesis linking the energy demand of the brain to obesity risk. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 13266-13275.	3.3	36
1492	How glycogen sustains brain function: A plausible allosteric signaling pathway mediated by glucose phosphates. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2019, 39, 1452-1459.	2.4	12
1493	Motor cost affects the decision of when to shift gaze for guiding movement. <i>Journal of Neurophysiology</i> , 2019, 122, 378-388.	0.9	18
1494	Measuring Respiration in Isolated Murine Brain Mitochondria: Implications for Mechanistic Stroke Studies. <i>NeuroMolecular Medicine</i> , 2019, 21, 493-504.	1.8	9
1495	Cholinergic neural activity directs retinal layer-specific angiogenesis and blood retinal barrier formation. <i>Nature Communications</i> , 2019, 10, 2477.	5.8	24
1496	Exercise induces region-specific remodeling of astrocyte morphology and reactive astrocyte gene expression patterns in male mice. <i>Journal of Neuroscience Research</i> , 2019, 97, 1081-1094.	1.3	30
1497	Miniature spiders (with miniature brains) forget sooner. <i>Animal Behaviour</i> , 2019, 153, 25-32.	0.8	6
1498	Oxygen-sensitive interneurons exhibit increased activity and GABA release during ROS scavenging in the cerebral cortex of the western painted turtle. <i>Journal of Neurophysiology</i> , 2019, 122, 466-479.	0.9	6
1499	Environmental temperature variation affects brain protein expression and cognitive abilities in adult zebrafish (<i>Danio rerio</i>): A proteomic and behavioural study. <i>Journal of Proteomics</i> , 2019, 204, 103396.	1.2	47
1500	In vivo real-time dynamics of ATP and ROS production in axonal mitochondria show decoupling in mouse models of peripheral neuropathies. <i>Acta Neuropathologica Communications</i> , 2019, 7, 86.	2.4	44
1501	HIV-1 infection alters energy metabolism in the brain: Contributions to HIV-associated neurocognitive disorders. <i>Progress in Neurobiology</i> , 2019, 181, 101616.	2.8	38
1502	Average firing rate rather than temporal pattern determines metabolic cost of activity in thalamocortical relay neurons. <i>Scientific Reports</i> , 2019, 9, 6940.	1.6	13
1503	An amplitude code transmits information at a visual synapse. <i>Nature Neuroscience</i> , 2019, 22, 1140-1147.	7.1	51
1505	Tortuous Paths of Insulin Signaling and Mitochondria in Alzheimer's Disease. <i>Advances in Experimental Medicine and Biology</i> , 2019, 1128, 161-183.	0.8	5
1506	Fundamental bounds on learning performance in neural circuits. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 10537-10546.	3.3	26
1507	Neuronal Cells Rearrangement During Aging and Neurodegenerative Disease: Metabolism, Oxidative Stress and Organelles Dynamic. <i>Frontiers in Molecular Neuroscience</i> , 2019, 12, 132.	1.4	148
1508	A quantitative model of human neurodegenerative diseases involving protein aggregation. <i>Neurobiology of Aging</i> , 2019, 80, 46-55.	1.5	23

#	ARTICLE	IF	CITATIONS
1509	Sparse neuromorphic computing based on spin-torque diodes. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	28
1510	VARIETIES OF DIFFERENCE-MAKERS: CONSIDERATIONS ON CHIRIMUUTAâ€™S APPROACH TO NON-CAUSAL EXPLANATION IN NEUROSCIENCE. <i>Manuscrito</i> , 2019, 42, 91-119.	0.1	0
1511	Neuronal Mitophagy: Lessons from a Pathway Linked to Parkinsonâ€™s Disease. <i>Neurotoxicity Research</i> , 2019, 36, 292-305.	1.3	9
1512	The Response to Stimulation in Neurons and Astrocytes. <i>Neurochemical Research</i> , 2019, 44, 2385-2391.	1.6	24
1513	Astrocyte alterations in neurodegenerative pathologies and their modeling in human induced pluripotent stem cell platforms. <i>Cellular and Molecular Life Sciences</i> , 2019, 76, 2739-2760.	2.4	88
1514	Differential expression patterns of sodium potassium ATPase alpha and beta subunit isoforms in mouse brain during postnatal development. <i>Neurochemistry International</i> , 2019, 128, 163-174.	1.9	14
1515	Improving the Antinoise Ability of DNNs via a Bio-Inspired Noise Adaptive Activation Function Rand Softplus. <i>Neural Computation</i> , 2019, 31, 1215-1233.	1.3	16
1516	Drosophila Nrf2/Keap1 Mediated Redox Signaling Supports Synaptic Function and Longevity and Impacts on Circadian Activity. <i>Frontiers in Molecular Neuroscience</i> , 2019, 12, 86.	1.4	31
1517	The Understanding Capacity and Information Dynamics in the Human Brain. <i>Entropy</i> , 2019, 21, 308.	1.1	15
1518	Brain mitochondrial proteome alteration driven by creatine deficiency suggests novel therapeutic venues for creatine deficiency syndromes. <i>Neuroscience</i> , 2019, 409, 276-289.	1.1	8
1519	Determination of effective brain connectivity from activity correlations. <i>Physical Review E</i> , 2019, 99, 042404.	0.8	6
1520	Emotional Theory of Rationality. <i>Frontiers in Integrative Neuroscience</i> , 2019, 13, 11.	1.0	11
1521	Neurological, Psychiatric, and Biochemical Aspects of Thiamine Deficiency in Children and Adults. <i>Frontiers in Psychiatry</i> , 2019, 10, 207.	1.3	127
1522	Acute Inescapable Stress Rapidly Increases Synaptic Energy Metabolism in Prefrontal Cortex and Alters Working Memory Performance. <i>Cerebral Cortex</i> , 2019, 29, 4948-4957.	1.6	20
1523	The upper frequency limit for the use of phase locking to code temporal fine structure in humans: A compilation of viewpoints. <i>Hearing Research</i> , 2019, 377, 109-121.	0.9	76
1524	Microglia-Specific Metabolic Changes in Neurodegeneration. <i>Journal of Molecular Biology</i> , 2019, 431, 1830-1842.	2.0	83
1525	Crosstalk between mitochondria, calcium channels and actin cytoskeleton modulates noradrenergic activity of locus coeruleus neurons. <i>Journal of Neurochemistry</i> , 2019, 149, 471-487.	2.1	12
1526	Neuronal AMP-activated protein kinase hyper-activation induces synaptic loss by an autophagy-mediated process. <i>Cell Death and Disease</i> , 2019, 10, 221.	2.7	54

#	ARTICLE	IF	CITATIONS
1527	Estimate of the adenosine triphosphate requirement of human retinal ganglion cells. <i>Clinical and Experimental Ophthalmology</i> , 2019, 47, 683-684.	1.3	3
1528	Bortezomib-induced aerobic glycolysis contributes to chemotherapy-induced painful peripheral neuropathy. <i>Molecular Pain</i> , 2019, 15, 174480691983742.	1.0	29
1529	Cost of auditory sharpness: Model-Based estimate of energy use by auditory brainstem octopus neurons. <i>Journal of Theoretical Biology</i> , 2019, 469, 137-147.	0.8	2
1530	Cellular Injury Biomechanics of Central Nervous System Trauma. , 2019, , 63-86.		1
1531	A Non-cognitive Behavioral Model for Interpreting Functional Neuroimaging Studies. <i>Frontiers in Human Neuroscience</i> , 2019, 13, 28.	1.0	5
1532	Resource allocation in phonological working memory: Same or different principles from vision?. <i>Journal of Memory and Language</i> , 2019, 106, 172-188.	1.1	4
1533	Mitophagy could fight Parkinson's disease through antioxidant action. <i>Reviews in the Neurosciences</i> , 2019, 30, 729-742.	1.4	6
1534	The anx/anx Mouse – A Valuable Resource in Anorexia Nervosa Research. <i>Frontiers in Neuroscience</i> , 2019, 13, 59.	1.4	18
1535	Mechanisms for the maintenance and regulation of axonal energy supply. <i>Journal of Neuroscience Research</i> , 2019, 97, 897-913.	1.3	75
1536	ECS Dynamism and Its Influence on Neuronal Excitability and Seizures. <i>Neurochemical Research</i> , 2019, 44, 1020-1036.	1.6	20
1537	Antidepressants affect gut microbiota and <i>Ruminococcus flavefaciens</i> is able to abolish their effects on depressive-like behavior. <i>Translational Psychiatry</i> , 2019, 9, 133.	2.4	159
1538	Processing bias: extending sensory drive to include efficacy and efficiency in information processing. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20190165.	1.2	20
1539	Imaging in Neurodegeneration: Movement Disorders. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , 2019, 3, 262-274.	2.7	4
1540	Energy Cost of Action Potential Generation and Propagation in Thalamocortical Relay Neurons During Deep Brain Stimulation. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 3457-3471.	2.5	6
1541	Dysfunctional Mitochondrial Bioenergetics and Synaptic Degeneration in Alzheimer Disease. <i>International Neurourology Journal</i> , 2019, 23, S5-10.	0.5	50
1542	Axonal sodium and potassium conductance density determines spiking dynamical properties of regular- and fast-spiking neurons. <i>Nonlinear Dynamics</i> , 2019, 95, 1035-1052.	2.7	3
1543	Synaptic energy metabolism and neuronal excitability, in sickness and health. <i>Journal of Inherited Metabolic Disease</i> , 2019, 42, 220-236.	1.7	36
1544	Age- and AD-related redox state of NADH in subcellular compartments by fluorescence lifetime imaging microscopy. <i>GeroScience</i> , 2019, 41, 51-67.	2.1	35

#	ARTICLE	IF	CITATIONS
1545	Taxifolin protects neurons against ischemic injury in vitro via the activation of antioxidant systems and signal transduction pathways of GABAergic neurons. <i>Molecular and Cellular Neurosciences</i> , 2019, 96, 10-24.	1.0	34
1546	NLRP3 inflammasome inhibition with MCC950 improves diabetes-mediated cognitive impairment and vasoneuronal remodeling after ischemia. <i>Pharmacological Research</i> , 2019, 142, 237-250.	3.1	151
1547	The role of mitochondrial defects and oxidative stress in Alzheimer's disease. <i>Journal of Drug Targeting</i> , 2019, 27, 932-942.	2.1	25
1548	Genes, Cells and Brain Areas of Intelligence. <i>Frontiers in Human Neuroscience</i> , 2019, 13, 44.	1.0	59
1549	Re-evaluating Circuit Mechanisms Underlying Pattern Separation. <i>Neuron</i> , 2019, 101, 584-602.	3.8	166
1550	Efficacy of Cilostazol Administration in Alzheimer's Disease Patients with White Matter Lesions: A Positron-Emission Tomography Study. <i>Neurotherapeutics</i> , 2019, 16, 394-403.	2.1	28
1551	signADAM++: Learning Confidences for Deep Neural Networks. , 2019, , .		5
1552	Brain Fuel Utilization in the Developing Brain. <i>Annals of Nutrition and Metabolism</i> , 2019, 75, 8-18.	1.0	73
1553	A Silicon-Compatible Synaptic Transistor Capable of Multiple Synaptic Weights toward Energy-Efficient Neuromorphic Systems. <i>Electronics (Switzerland)</i> , 2019, 8, 1102.	1.8	9
1554	Mitochondrial metabolism: a common link between neuroinflammation and neurodegeneration. <i>Behavioural Pharmacology</i> , 2019, 30, 641-651.	0.8	31
1555	Molecular Imaging in Pediatric Brain Tumors. <i>Cancers</i> , 2019, 11, 1853.	1.7	12
1556	Energy Dynamics in the Brain: Contributions of Astrocytes to Metabolism and pH Homeostasis. <i>Frontiers in Neuroscience</i> , 2019, 13, 1301.	1.4	77
1557	Mitochondrial morphology provides a mechanism for energy buffering at synapses. <i>Scientific Reports</i> , 2019, 9, 18306.	1.6	52
1558	Ageing and Central Auditory Disinhibition: Is It a Reflection of Homeostatic Downregulation or Metabolic Vulnerability?. <i>Brain Sciences</i> , 2019, 9, 351.	1.1	17
1559	Higher neuron densities in the cerebral cortex and larger cerebellums may limit dive times of delphinids compared to deep-diving toothed whales. <i>PLoS ONE</i> , 2019, 14, e0226206.	1.1	16
1560	The effect of inhibition on rate code efficiency indicators. <i>PLoS Computational Biology</i> , 2019, 15, e1007545.	1.5	10
1561	Metabolic Cost of Dendritic Ca ²⁺ Action Potentials in Layer 5 Pyramidal Neurons. <i>Frontiers in Neuroscience</i> , 2019, 13, 1221.	1.4	5
1562	Detecting Surface Defects of Wind Turbine Blades Using an Alexnet Deep Learning Algorithm. <i>IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences</i> , 2019, E102.A, 1817-1824.	0.2	19

#	ARTICLE	IF	CITATIONS
1563	On Energy Efficiency and the Brain's Resistance to Change: The Neurological Evolution of Dogmatism and Close-Mindedness. <i>Psychological Reports</i> , 2019, 122, 2406-2416.	0.9	7
1564	Mitochondria and neuroprotection in stroke: Cationic arginine-rich peptides (CARPs) as a novel class of mitochondria-targeted neuroprotective therapeutics. <i>Neurobiology of Disease</i> , 2019, 121, 17-33.	2.1	37
1565	The possible beneficial effects of creatine for the management of depression. <i>Progress in Neuro-Psychopharmacology and Biological Psychiatry</i> , 2019, 89, 193-206.	2.5	28
1566	Spatiotemporal pattern of calcium activity in astrocytic network. <i>Cell Calcium</i> , 2019, 78, 15-25.	1.1	62
1567	Broadening the definition of brain insulin resistance in aging and Alzheimer's disease. <i>Experimental Neurology</i> , 2019, 313, 79-87.	2.0	45
1568	Sparse Computation in Adaptive Spiking Neural Networks. <i>Frontiers in Neuroscience</i> , 2018, 12, 987.	1.4	32
1569	Neurons rely on glucose rather than astrocytic lactate during stimulation. <i>Journal of Neuroscience Research</i> , 2019, 97, 883-889.	1.3	90
1570	Upregulation of the lactate transporter monocarboxylate transporter 1 at the blood-brain barrier in a rat model of attention-deficit/hyperactivity disorder suggests hyperactivity could be a form of self-treatment. <i>Behavioural Brain Research</i> , 2019, 360, 279-285.	1.2	16
1571	Cognitive costs of reproduction: life-history trade-offs explain cognitive decline during pregnancy in women. <i>Biological Reviews</i> , 2019, 94, 1105-1115.	4.7	11
1572	Current Practice and New Developments in the Use of In Vivo Magnetic Resonance Spectroscopy for the Assessment of Key Metabolites Implicated in the Pathophysiology of Schizophrenia. <i>Current Topics in Medicinal Chemistry</i> , 2019, 18, 1908-1924.	1.0	4
1573	Brain Glucose Metabolism: Integration of Energetics with Function. <i>Physiological Reviews</i> , 2019, 99, 949-1045.	13.1	442
1574	The brain in flux: Genetic, physiologic, and therapeutic perspectives on transporters in the CNS. <i>Neurochemistry International</i> , 2019, 123, 1-6.	1.9	4
1575	Stability of representational geometry across a wide range of fMRI activity levels. <i>NeuroImage</i> , 2019, 186, 155-163.	2.1	25
1576	What is the key mediator of the neurovascular coupling response?. <i>Neuroscience and Biobehavioral Reviews</i> , 2019, 96, 174-181.	2.9	117
1577	Spontaneous astrocytic Ca ²⁺ activity abounds in electrically suppressed ischemic penumbra of aged mice. <i>Glia</i> , 2019, 67, 37-52.	2.5	22
1578	Advanced Multinuclear Magnetic Resonance Spectroscopy (MRS) Imaging Approaches for Studying Brain Metabolism, Neuroenergetics, and Function. , 2019, , 463-491.		1
1579	Implications for You and Society. , 2019, , 205-218.		0
1580	Short-term synaptic depression can increase the rate of information transfer at a release site. <i>PLoS Computational Biology</i> , 2019, 15, e1006666.	1.5	12

#	ARTICLE	IF	CITATIONS
1581	Toward a brain theory of meditation. <i>Progress in Brain Research</i> , 2019, 244, 207-232.	0.9	37
1582	The dark matter of the brain. <i>Brain Structure and Function</i> , 2019, 224, 973-983.	1.2	15
1583	Extracellular ATP and glutamate drive pyruvate production and energy demand to regulate mitochondrial respiration in astrocytes. <i>Glia</i> , 2019, 67, 759-774.	2.5	24
1584	Sum rate analysis of multiple-access neuro-spike communication channel with dynamic spiking threshold. <i>Nano Communication Networks</i> , 2019, 19, 110-118.	1.6	9
1585	Tubulin- Na^+K^+ -ATPase interaction: Involvement in enzymatic regulation and cellular function. <i>Journal of Cellular Physiology</i> , 2019, 234, 7752-7763.	2.0	9
1586	Oxygen, evolution and redox signalling in the human brain; quantum in the quotidian. <i>Journal of Physiology</i> , 2019, 597, 15-28.	1.3	54
1587	Isolation of synaptic vesicles from genetically engineered cultured neurons. <i>Journal of Neuroscience Methods</i> , 2019, 312, 114-121.	1.3	1
1588	Energy expenditure computation of a single bursting neuron. <i>Cognitive Neurodynamics</i> , 2019, 13, 75-87.	2.3	43
1589	Deciphering neural circuits for <i>Caenorhabditis elegans</i> behavior by computations and perturbations to genome and connectome. <i>Current Opinion in Systems Biology</i> , 2019, 13, 44-51.	1.3	5
1590	Heterogeneity of Astrocytic and Neuronal GLT-1 at Cortical Excitatory Synapses, as Revealed by its Colocalization With Na^+K^+ -ATPase \pm Isoforms. <i>Cerebral Cortex</i> , 2019, 29, 3331-3350.	1.6	37
1591	Light at night affects hippocampal and nidopallial cytoarchitecture: Implication for impairment of brain function in diurnal corvids. <i>Journal of Experimental Zoology Part A: Ecological and Integrative Physiology</i> , 2019, 331, 149-156.	0.9	12
1592	HMG-CoA synthase 2 drives brain metabolic reprogramming in cocaine exposure. <i>Neuropharmacology</i> , 2019, 148, 377-393.	2.0	9
1593	Vascular density and distribution in neocortex. <i>NeuroImage</i> , 2019, 197, 792-805.	2.1	86
1594	Non-BOLD contrast for laminar fMRI in humans: CBF, CBV, and CMRO ₂ . <i>NeuroImage</i> , 2019, 197, 742-760.	2.1	96
1595	Cerebral metabolism and vascular reactivity during breath-hold and hypoxic challenge in freedivers and healthy controls. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2019, 39, 834-848.	2.4	25
1596	Delta Rhythm Orchestrates the Neural Activity Underlying the Resting State BOLD Signal via Phase-amplitude Coupling. <i>Cerebral Cortex</i> , 2019, 29, 119-133.	1.6	28
1597	The stronger one-sided relative hypoperfusion, the more pronounced ipsilateral spatial attentional bias in patients with asymptomatic carotid stenosis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2020, 40, 314-327.	2.4	10
1598	Longitudinal evaluation of surrogates of regional cerebral blood flow computed from dynamic amyloid PET imaging. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2020, 40, 288-297.	2.4	33

#	ARTICLE	IF	CITATIONS
1599	The development of executive function in early childhood is inversely related to change in body mass index: Evidence for an energetic tradeoff?. <i>Developmental Science</i> , 2020, 23, e12860.	1.3	22
1600	Role of Delayed Neuroglial Activation in Impaired Cerebral Blood Flow Restoration Following Comorbid Injury. <i>Cellular and Molecular Neurobiology</i> , 2020, 40, 369-380.	1.7	3
1601	Glut4: A central player in hippocampal memory and brain insulin resistance. <i>Experimental Neurology</i> , 2020, 323, 113076.	2.0	73
1602	Astrocytic Metabolism Focusing on Glutamate Homeostasis: A Short Review Dedicated to Vittorio Gallo. <i>Neurochemical Research</i> , 2020, 45, 522-525.	1.6	6
1603	Modification of oxygen consumption and blood flow in mouse somatosensory cortex by cell-type-specific neuronal activity. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2020, 40, 2010-2025.	2.4	16
1604	Association of Cortical Glutamate and Working Memory Activation in Patients With Schizophrenia: A Multimodal Proton Magnetic Resonance Spectroscopy and Functional Magnetic Resonance Imaging Study. <i>Biological Psychiatry</i> , 2020, 87, 225-233.	0.7	27
1605	Artificial Sensory Memory. <i>Advanced Materials</i> , 2020, 32, e1902434.	11.1	200
1606	Development of a Deep Rectifier Neural Network for dose prediction in nuclear emergencies with radioactive material releases. <i>Progress in Nuclear Energy</i> , 2020, 118, 103110.	1.3	18
1607	Graded Coexpression of Ion Channel, Neurofilament, and Synaptic Genes in Fast-Spiking Vestibular Nucleus Neurons. <i>Journal of Neuroscience</i> , 2020, 40, 496-508.	1.7	24
1608	The effect of chronic neuroglycopenia on resting state networks in GLUT1 syndrome across the lifespan. <i>Human Brain Mapping</i> , 2020, 41, 453-466.	1.9	2
1609	Memristive-synapse spiking neural networks based on single-electron transistors. <i>Journal of Computational Electronics</i> , 2020, 19, 435-450.	1.3	9
1610	Metabolic regulation of neurodifferentiation in the adult brain. <i>Cellular and Molecular Life Sciences</i> , 2020, 77, 2483-2496.	2.4	46
1611	<i>In Vitro</i> Effects of Paclitaxel and Cremophor EL on Human Riboflavin Transporter SLC52A2. <i>Biological and Pharmaceutical Bulletin</i> , 2020, 43, 175-178.	0.6	1
1612	Malware detection in mobile environments based on Autoencoders and API-images. <i>Journal of Parallel and Distributed Computing</i> , 2020, 137, 26-33.	2.7	76
1613	Metabolic Network Topology of Alzheimer's Disease and Dementia with Lewy Bodies Generated Using Fluorodeoxyglucose Positron Emission Tomography. <i>Journal of Alzheimer's Disease</i> , 2020, 73, 197-207.	1.2	10
1614	Oral glutamine supplementation increases seizure severity in a rodent model of mesial temporal lobe epilepsy. <i>Nutritional Neuroscience</i> , 2020, , 1-6.	1.5	1
1615	Broadband Optoelectronic Synaptic Thin-Film Transistors Based on Oxide Semiconductors. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 1900630.	1.2	19
1616	Susceptibility to capillary plugging can predict brain region specific vessel loss with aging. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2020, 40, 2475-2490.	2.4	39

#	ARTICLE	IF	CITATIONS
1617	Adenosine 5â€™-Monophosphate Protects from Hypoxia by Lowering Mitochondrial Metabolism and Oxygen Demand. <i>Shock</i> , 2020, 54, 237-244.	1.0	6
1618	The distribution and density of monocarboxylate transporter 2 in cerebral cortex, hippocampus and cerebellum of wild-type mice. <i>Journal of Anatomy</i> , 2020, 236, 370-377.	0.9	6
1619	Three-dimensional imaging of spatio-temporal dynamics of small blood capillary network in the cortex based on optical coherence tomography: A review. <i>Journal of Innovative Optical Health Sciences</i> , 2020, 13, .	0.5	7
1620	Emerging Devices for Biologically Accurate Neuron. <i>ACS Applied Electronic Materials</i> , 2020, 2, 389-397.	2.0	7
1621	Mild metabolic stress is sufficient to disturb the formation of pyramidal cell ensembles during gamma oscillations. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2020, 40, 2401-2415.	2.4	11
1622	Altered Outer Hair Cell Mitochondrial and Subsurface Cisternae Connectomics Are Candidate Mechanisms for Hearing Loss in Mice. <i>Journal of Neuroscience</i> , 2020, 40, 8556-8572.	1.7	21
1623	Monitoring Fetal Electroencephalogram Intrapartum: A Systematic Literature Review. <i>Frontiers in Pediatrics</i> , 2020, 8, 584.	0.9	1
1624	Neuromodulation of Glial Function During Neurodegeneration. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 278.	1.8	35
1625	AIBP protects retinal ganglion cells against neuroinflammation and mitochondrial dysfunction in glaucomatous neurodegeneration. <i>Redox Biology</i> , 2020, 37, 101703.	3.9	21
1626	Microglial Immunometabolism in Alzheimer's Disease. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 563446.	1.8	27
1627	Circadian Modulation of Neurons and Astrocytes Controls Synaptic Plasticity in Hippocampal Area CA1. <i>Cell Reports</i> , 2020, 33, 108255.	2.9	45
1628	Astrocytes regulate brain extracellular pH via a neuronal activity-dependent bicarbonate shuttle. <i>Nature Communications</i> , 2020, 11, 5073.	5.8	72
1629	Computational capacity of pyramidal neurons in the cerebral cortex. <i>Brain Research</i> , 2020, 1748, 147069.	1.1	16
1630	Axonal mRNA translation in neurological disorders. <i>RNA Biology</i> , 2021, 18, 936-961.	1.5	21
1631	Vascular contributions to 16p11.2 deletion autism syndrome modeled in mice. <i>Nature Neuroscience</i> , 2020, 23, 1090-1101.	7.1	70
1632	Î±-Synuclein aggregation and transmission in Parkinson's disease: a link to mitochondria and lysosome. <i>Science China Life Sciences</i> , 2020, 63, 1850-1859.	2.3	16
1633	Simultaneous voltammetric detection of glucose and lactate fluctuations in rat striatum evoked by electrical stimulation of the midbrain. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 6611-6624.	1.9	18
1634	An in vitro bioengineered model of the human arterial neurovascular unit to study neurodegenerative diseases. <i>Molecular Neurodegeneration</i> , 2020, 15, 70.	4.4	9

#	ARTICLE	IF	CITATIONS
1635	An Overview on the Differential Interplay Among Neuronsâ€™Astrocytesâ€™Microglia in CA1 and CA3 Hippocampus in Hypoxia/Ischemia. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 585833.	1.8	48
1636	Corticotropin-releasing hormone (CRH) alters mitochondrial morphology and function by activating the NF- κ B-DRP1 axis in hippocampal neurons. <i>Cell Death and Disease</i> , 2020, 11, 1004.	2.7	16
1637	Lower Cardiac Output Relates to Longitudinal Cognitive Decline in Aging Adults. <i>Frontiers in Psychology</i> , 2020, 11, 569355.	1.1	5
1638	Caloric Restriction and Ketogenic Diet Therapy for Epilepsy: A Molecular Approach Involving Wnt Pathway and KATP Channels. <i>Frontiers in Neurology</i> , 2020, 11, 584298.	1.1	13
1639	Information-devoid routes for scale-free neurodynamics. <i>Synthese</i> , 2021, 199, 2491-2504.	0.6	3
1640	Neuron Activity Dependent Redox Compartmentation Revealed with a Second Generation Red-Shifted Ratiometric Sensor. <i>ACS Chemical Neuroscience</i> , 2020, 11, 2666-2678.	1.7	3
1641	Brain glucose and ketone utilization in brain aging and neurodegenerative diseases. <i>International Review of Neurobiology</i> , 2020, 154, 79-110.	0.9	27
1642	Neuronal spike-rate adaptation supports working memory in language processing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 20881-20889.	3.3	23
1643	Effect of Aging on Daily Rhythms of Lactate Metabolism in the Medial Prefrontal Cortex of Male Mice. <i>Neuroscience</i> , 2020, 448, 300-310.	1.1	10
1644	Physics for neuromorphic computing. <i>Nature Reviews Physics</i> , 2020, 2, 499-510.	11.9	422
1645	Elevated energy requirement of cone photoreceptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 19599-19603.	3.3	58
1646	Information processing and energy efficiency of temperature-sensitive Morris-Lecar neuron. <i>BioSystems</i> , 2020, 197, 104215.	0.9	7
1647	Attention and Capacity Limits in Perception: A Cellular Metabolism Account. <i>Journal of Neuroscience</i> , 2020, 40, 6801-6811.	1.7	35
1648	The effects of temperature on the biophysical properties of optic nerve F-fibres. <i>Scientific Reports</i> , 2020, 10, 12755.	1.6	4
1649	How IQ depends on the running mode of brain network?. <i>Chaos</i> , 2020, 30, 073111.	1.0	7
1650	Coordination Dynamics: A Foundation for Understanding Social Behavior. <i>Frontiers in Human Neuroscience</i> , 2020, 14, 317.	1.0	40
1651	Structure of Population Activity in Primary Motor Cortex for Single Finger Flexion and Extension. <i>Journal of Neuroscience</i> , 2020, 40, 9210-9223.	1.7	13
1652	In vivo assessment of mechanisms underlying the neurovascular basis of postictal amnesia. <i>Scientific Reports</i> , 2020, 10, 14992.	1.6	16

#	ARTICLE	IF	CITATIONS
1653	Alzheimer's Disease: A Thermodynamic Perspective. Applied Sciences (Switzerland), 2020, 10, 7562.	1.3	1
1654	Neuroimaging in dementias. , 2020, , 187-197.		0
1655	A role of oligodendrocytes in information processing. Nature Communications, 2020, 11, 5497.	5.8	58
1656	Characteristics of Changes in Lipid Peroxidation and Na ⁺ /K ⁺ -ATPase Activity in the Cortex of Old Rats in Conditions of Two-Vessel Cerebral Ischemia/Reperfusion. Advances in Gerontology, 2020, 10, 156-161.	0.1	3
1657	Fate of Duplicated Neural Structures. Entropy, 2020, 22, 928.	1.1	4
1658	Metabolic tuning of inhibition regulates hippocampal neurogenesis in the adult brain. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25818-25829.	3.3	13
1659	Unraveling why we sleep: Quantitative analysis reveals abrupt transition from neural reorganization to repair in early development. Science Advances, 2020, 6, .	4.7	50
1660	Reevaluation of Astrocyte-Neuron Energy Metabolism with Astrocyte Volume Fraction Correction: Impact on Cellular Glucose Oxidation Rates, Glutamate-Glutamine Cycle Energetics, Glycogen Levels and Utilization Rates vs. Exercising Muscle, and Na ⁺ /K ⁺ Pumping Rates. Neurochemical Research, 2020, 45, 2607-2630.	1.6	28
1661	Cerebral blood flow decrease as an early pathological mechanism in Alzheimer's disease. Acta Neuropathologica, 2020, 140, 793-810.	3.9	154
1662	Glutamate-glutamine homeostasis is perturbed in neurons and astrocytes derived from patient iPSC models of frontotemporal dementia. Molecular Brain, 2020, 13, 125.	1.3	36
1663	Mice Preferentially Use Increases in Cerebral Cortex Spiking to Detect Changes in Visual Stimuli. Journal of Neuroscience, 2020, 40, 7902-7920.	1.7	14
1664	Association of $\hat{\gamma}$ -aminobutyric acid and glutamate/glutamine in the lateral prefrontal cortex with patterns of intrinsic functional connectivity in adults. Brain Structure and Function, 2020, 225, 1903-1919.	1.2	6
1665	Creative destruction: Sparse activity emerges on the mammal connectome under a simulated communication strategy with collisions and redundancy. Network Neuroscience, 2020, 4, 1055-1071.	1.4	5
1666	A proof of concept $\hat{\gamma}$ -phase zero study of neurodevelopment using brain organoid models with Vis/near-infrared spectroscopy and electrophysiology. Scientific Reports, 2020, 10, 20987.	1.6	5
1667	The Relationship between Sparseness and Energy Consumption of Neural Networks. Neural Plasticity, 2020, 2020, 1-13.	1.0	2
1668	Metabolic Control of Epilepsy: A Promising Therapeutic Target for Epilepsy. Frontiers in Neurology, 2020, 11, 592514.	1.1	25
1669	A unified neurocomputational bilateral model of spoken language production in healthy participants and recovery in poststroke aphasia. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 32779-32790.	3.3	26
1670	Mitochondrial Metabolism in Astrocytes Regulates Brain Bioenergetics, Neurotransmission and Redox Balance. Frontiers in Neuroscience, 2020, 14, 536682.	1.4	77

#	ARTICLE	IF	CITATIONS
1671	Impairment of Everyday Spatial Navigation Abilities in Mild Cognitive Impairment Is Weakly Associated with Reduced Grey Matter Volume in the Medial Part of the Entorhinal Cortex. <i>Journal of Alzheimer's Disease</i> , 2020, 78, 1149-1159.	1.2	5
1672	Energy Metabolism Decline in the Aging Brain—Pathogenesis of Neurodegenerative Disorders. <i>Metabolites</i> , 2020, 10, 450.	1.3	55
1673	Distinct regulation of bioenergetics and translation by group I mGluR and NMDAR. <i>EMBO Reports</i> , 2020, 21, e48037.	2.0	12
1674	AMPK and the Need to Breathe and Feed: What's the Matter with Oxygen?. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3518.	1.8	12
1675	<i>In Vivo</i> Glutamate Sensing inside the Mouse Brain with Perovskite Nickelate—Nafion Heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24564-24574.	4.0	27
1676	Long-term Preservation of Micro-algal Stock for Fish Hatcheries. <i>Aquaculture Reports</i> , 2020, 17, 100329.	0.7	1
1677	Premature synaptic mitochondrial dysfunction in the hippocampus during aging contributes to memory loss. <i>Redox Biology</i> , 2020, 34, 101558.	3.9	62
1678	Short-Term Plasticity at Hippocampal Mossy Fiber Synapses Is Induced by Natural Activity Patterns and Associated with Vesicle Pool Engram Formation. <i>Neuron</i> , 2020, 107, 509-521.e7.	3.8	77
1679	Sex-specific molecular specialization and activity rhythm dependent gene expression in honey bee antennae. <i>Journal of Experimental Biology</i> , 2020, 223, .	0.8	11
1680	The Evolution-Driven Signature of Parkinson's Disease. <i>Trends in Neurosciences</i> , 2020, 43, 475-492.	4.2	22
1681	Purines: From Diagnostic Biomarkers to Therapeutic Agents in Brain Injury. <i>Neuroscience Bulletin</i> , 2020, 36, 1315-1326.	1.5	16
1682	Overarching Principles and Dimensions of the Functional Organization in the Inferior Parietal Cortex. <i>Cerebral Cortex</i> , 2020, 30, 5639-5653.	1.6	26
1683	CyNAPSE: A Low-power Reconfigurable Neural Inference Accelerator for Spiking Neural Networks. <i>Journal of Signal Processing Systems</i> , 2020, 92, 907-929.	1.4	2
1684	Fluorescent Biosensors for Neuronal Metabolism and the Challenges of Quantitation. <i>Current Opinion in Neurobiology</i> , 2020, 63, 111-121.	2.0	32
1685	Recent progress in optoelectronic neuromorphic devices*. <i>Chinese Physics B</i> , 2020, 29, 078502.	0.7	21
1686	Upper Limit on the Thermodynamic Information Content of an Action Potential. <i>Frontiers in Computational Neuroscience</i> , 2020, 14, 37.	1.2	11
1687	Bifurcations Features of the Hodgkin-Huxley Neuron Model. , 2020, , .		0
1688	Conditional Knockout of GLT-1 in Neurons Leads to Alterations in Aspartate Homeostasis and Synaptic Mitochondrial Metabolism in Striatum and Hippocampus. <i>Neurochemical Research</i> , 2020, 45, 1420-1437.	1.6	17

#	ARTICLE	IF	CITATIONS
1689	The noise cancelation effects caused by spike-frequency adaptation in single neurons. <i>Nonlinear Dynamics</i> , 2020, 100, 1825-1835.	2.7	2
1690	Clustering of Neural Activity: A Design Principle for Population Codes. <i>Frontiers in Computational Neuroscience</i> , 2020, 14, 20.	1.2	9
1691	Cysteine becomes conditionally essential during hypobaric hypoxia and regulates adaptive neuro-physiological responses through CBS/H2S pathway. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2020, 1866, 165769.	1.8	13
1692	Modulations in the ATPases during ketamine-induced schizophrenia and regulatory effect of α -3(3), Tj ETQq1 1 0.784314 rgBT /Overl Receptor and Signal Transduction Research, 2020, 40, 148-156.	1.3	8
1693	The Effects of Early-Life Iron Deficiency on Brain Energy Metabolism. <i>Neuroscience Insights</i> , 2020, 15, 263310552093510.	0.9	38
1694	Extensive astrocyte metabolism of γ -aminobutyric acid (<sc>GABA</sc>) sustains glutamine synthesis in the mammalian cerebral cortex. <i>Glia</i> , 2020, 68, 2601-2612.	2.5	28
1695	Relationship between oxygen consumption and neuronal activity in a defined neural circuit. <i>BMC Biology</i> , 2020, 18, 76.	1.7	24
1696	Survival of the cheapest: how proteome cost minimization drives evolution. <i>Quarterly Reviews of Biophysics</i> , 2020, 53, e7.	2.4	12
1697	AMP-activated protein kinase (AMPK) regulates astrocyte oxidative metabolism by balancing TCA cycle dynamics. <i>Glia</i> , 2020, 68, 1824-1839.	2.5	31
1698	Diversity of Axonal and Dendritic Contributions to Neuronal Output. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 570.	1.8	28
1699	Bioenergetic adaptations to HIV infection. Could modulation of energy substrate utilization improve brain health in people living with HIV-1?. <i>Experimental Neurology</i> , 2020, 327, 113181.	2.0	6
1700	Human athletic paleobiology; using sport as a model to investigate human evolutionary adaptation. <i>American Journal of Physical Anthropology</i> , 2020, 171, 42-59.	2.1	26
1701	Glutamate Transporters and Mitochondria: Signaling, Co-compartmentalization, Functional Coupling, and Future Directions. <i>Neurochemical Research</i> , 2020, 45, 526-540.	1.6	25
1702	An electrodiffusive, ion conserving Pinsky-Rinzel model with homeostatic mechanisms. <i>PLoS Computational Biology</i> , 2020, 16, e1007661.	1.5	24
1703	Tackling mitochondrial diversity in brain function: from animal models to human brain organoids. <i>International Journal of Biochemistry and Cell Biology</i> , 2020, 123, 105760.	1.2	12
1704	What is bipolar disorder? A disease model of dysregulated energy expenditure. <i>Neuroscience and Biobehavioral Reviews</i> , 2020, 113, 529-545.	2.9	15
1705	Revealing the neural networks that extract conceptual gestalts from continuously evolving or changing semantic contexts. <i>NeuroImage</i> , 2020, 220, 116802.	2.1	32
1706	Developmental regulation of microtubule-based trafficking and anchoring of axonal mitochondria in health and diseases. <i>Developmental Neurobiology</i> , 2021, 81, 284-299.	1.5	25

#	ARTICLE	IF	CITATIONS
1707	Opposed hemodynamic responses following increased excitation and parvalbumin-based inhibition. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 841-856.	2.4	23
1708	Spontaneous Beta Band Rhythms in the Predictive Coding of Natural Stimuli. <i>Neuroscientist</i> , 2021, 27, 184-201.	2.6	38
1709	The sense of should: A biologically-based framework for modeling social pressure. <i>Physics of Life Reviews</i> , 2021, 36, 100-136.	1.5	64
1710	Synchronous nonmonotonic changes in functional connectivity and white matter integrity in a rat model of sporadic Alzheimer's disease. <i>NeuroImage</i> , 2021, 225, 117498.	2.1	14
1711	Role of glia in optic nerve. <i>Progress in Retinal and Eye Research</i> , 2021, 81, 100886.	7.3	23
1712	Word predictability effects are linear, not logarithmic: Implications for probabilistic models of sentence comprehension. <i>Journal of Memory and Language</i> , 2021, 116, 104174.	1.1	36
1713	The role of lipids in the central nervous system and their pathological implications in amyotrophic lateral sclerosis. <i>Seminars in Cell and Developmental Biology</i> , 2021, 112, 69-81.	2.3	23
1714	Tea With Milk? A Hierarchical Generative Framework of Sequential Event Comprehension. <i>Topics in Cognitive Science</i> , 2021, 13, 256-298.	1.1	29
1715	Variability of mitochondrial energy balance across brain regions. <i>Journal of Neurochemistry</i> , 2021, 157, 1234-1243.	2.1	17
1716	Bidirectional astrocytic <scp>GLUT1</scp> activation by elevated extracellular K⁺. <i>Glia</i> , 2021, 69, 1012-1021.	2.5	11
1717	More than just summed neuronal activity: how multiple cell types shape the BOLD response. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20190630.	1.8	34
1718	Mitochondrial neuropathy and neurogenic features in mitochondrial myopathy. <i>Mitochondrion</i> , 2021, 56, 52-61.	1.6	13
1719	Memory retention in pyramidal neurons: a unified model of energy-based homo and heterosynaptic plasticity with homeostasis. <i>Cognitive Neurodynamics</i> , 2021, 15, 675-692.	2.3	2
1720	The thermodynamics of thinking: connections between neural activity, energy metabolism and blood flow. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20190624.	1.8	33
1721	Regional variation in neurovascular coupling and why we still lack a Rosetta Stone. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20190634.	1.8	26
1722	Importance of lipids for upper motor neuron health and disease. <i>Seminars in Cell and Developmental Biology</i> , 2021, 112, 92-104.	2.3	3
1723	Human torpor: translating insights from nature into manned deep space expedition. <i>Biological Reviews</i> , 2021, 96, 642-672.	4.7	8
1724	Involvement of Pannexin-1 in the Mechanism of Deprivation Potentiation of Population Spikes of Neurons in Rat Hippocampal Field CA1. <i>Neuroscience and Behavioral Physiology</i> , 2021, 51, 48-58.	0.2	0

#	ARTICLE	IF	CITATIONS
1725	Activity labeling in vivo using CaMPARI2 reveals intrinsic and synaptic differences between neurons with high and low firing rate set points. <i>Neuron</i> , 2021, 109, 663-676.e5.	3.8	24
1726	Andrographolide restores glucose uptake in rat hippocampal neurons. <i>Journal of Neurochemistry</i> , 2021, 157, 1222-1233.	2.1	11
1727	Synchronization and metabolic energy consumption in stochastic Hodgkin-Huxley neurons: Patch size and drug blockers. <i>Neurocomputing</i> , 2021, 422, 222-234.	3.5	14
1728	The Complex and Integral Roles of Pericytes Within the Neurovascular Unit in Health and Disease. <i>Pancreatic Islet Biology</i> , 2021, , 39-74.	0.1	1
1729	Integrating Various Neural Features Based on Mechanism of Intricate Balance and Ongoing Activity: Unified Neural Account Underlying and Correspondent to Mental Phenomena. <i>World Journal of Neuroscience</i> , 2021, 11, 161-210.	0.1	1
1730	In-depth quantitative proteomic characterization of organotypic hippocampal slice culture reveals sex-specific differences in biochemical pathways. <i>Scientific Reports</i> , 2021, 11, 2560.	1.6	5
1731	Impaired mitochondrial bioenergetics in psychiatric disorders. , 2021, , 195-221.		1
1732	In vivo synaptic density relates to glucose metabolism at rest in healthy subjects, but is strongly modulated by regional differences. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 0271678X2098150.	2.4	21
1733	Methods 13C MRS Measurements of in Vivo Rates of the Glutamate/Glutamine and GABA/Glutamine Neurotransmitter Cycles. , 2021, , 688-700.		2
1734	High Contrast Allows the Retina to Compute More Than Just Contrast. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 595193.	1.8	3
1735	On the theory of mental representation block. a novel perspective on learning and behavior. <i>Communicative and Integrative Biology</i> , 2021, 14, 41-50.	0.6	0
1736	Imaging Pericytes and the Regulation of Cerebral Blood Flow. <i>Methods in Molecular Biology</i> , 2021, 2235, 89-117.	0.4	4
1737	Energy Metabolism Brain Energy Metabolism. , 2021, , 286-301.		1
1738	Oxidative Stress-Related Mechanisms in Schizophrenia Pathogenesis and New Treatment Perspectives. <i>Oxidative Medicine and Cellular Longevity</i> , 2021, 2021, 1-37.	1.9	92
1739	Roles of the ocular pressure, pressure-sensitive ion channel, and elasticity in pressure-induced retinal diseases. <i>Neural Regeneration Research</i> , 2021, 16, 68.	1.6	12
1740	The nature effect in motion: visual exposure to environmental scenes impacts cognitive load and human gait kinematics. <i>Royal Society Open Science</i> , 2021, 8, 201100.	1.1	6
1741	Influence of energy deficiency on the subcellular processes of Substantia Nigra Pars Compacta cell for understanding Parkinsonian neurodegeneration. <i>Scientific Reports</i> , 2021, 11, 1754.	1.6	21
1742	The interplay of blood flow and temperature in regional hyperthermia: a mathematical approach. <i>Royal Society Open Science</i> , 2021, 8, 201234.	1.1	7

#	ARTICLE	IF	CITATIONS
1743	An Integrative Account of Neural Network Interaction: Neuro-Messenger Theory. World Journal of Neuroscience, 2021, 11, 124-136.	0.1	2
1744	Preclinical studies of transcranial photobiomodulation in the neurological diseases. Translational Biophotonics, 2021, 3, e202000024.	1.4	3
1746	Endothelin B receptor dysfunction mediates elevated myogenic tone in cerebral arteries from aged male Fischer 344 rats. GeroScience, 2021, 43, 1447-1463.	2.1	12
1747	Regulation of neuronal bioenergetics as a therapeutic strategy in neurodegenerative diseases. Neural Regeneration Research, 2021, 16, 1467.	1.6	26
1748	A Synaptic-plasticity Model Inspired by Metabolic Energy. Journal of Physics: Conference Series, 2021, 1746, 012009.	0.3	0
1749	Altered mitochondrial fusion drives defensive glutathione synthesis in cells able to switch to glycolytic ATP production. Biochimica Et Biophysica Acta - Molecular Cell Research, 2021, 1868, 118854.	1.9	14
1750	Changes in brain synapse-related molecules with age. , 2021, , 185-198.		0
1751	Toward three-dimensional in vitro models to study neurovascular unit functions in health and disease. Neural Regeneration Research, 2021, 16, 2132.	1.6	21
1752	CNS glucose metabolism in Amyotrophic Lateral Sclerosis: a therapeutic target?. Cell and Bioscience, 2021, 11, 14.	2.1	56
1753	How neurons exploit fractal geometry to optimize their network connectivity. Scientific Reports, 2021, 11, 2332.	1.6	30
1754	Bioenergetics and abnormal functional connectivity in psychotic disorders. Molecular Psychiatry, 2021, 26, 2483-2492.	4.1	12
1755	Different Roles of Mitochondria in Cell Death and Inflammation: Focusing on Mitochondrial Quality Control in Ischemic Stroke and Reperfusion. Biomedicines, 2021, 9, 169.	1.4	43
1758	The distinct roles of calcium in rapid control of neuronal glycolysis and the tricarboxylic acid cycle. ELife, 2021, 10, .	2.8	51
1759	Brain Size, Metabolism, and Social Evolution. Frontiers in Physiology, 2021, 12, 612865.	1.3	10
1760	Time Course of Alterations in Adult Spinal Motoneuron Properties in the SOD1(G93A) Mouse Model of ALS. ENeuro, 2021, 8, ENEURO.0378-20.2021.	0.9	18
1761	Critical Neural Networks Minimize Metabolic Cost. Physics, 2021, 3, 42-58.	0.5	2
1762	Resting fMRI-guided TMS results in subcortical and brain network modulation indexed by interleaved TMS/fMRI. Experimental Brain Research, 2021, 239, 1165-1178.	0.7	39
1763	Concepts of Neuroinflammation and Their Relationship With Impaired Mitochondrial Functions in Bipolar Disorder. Frontiers in Behavioral Neuroscience, 2021, 15, 609487.	1.0	16

#	ARTICLE	IF	CITATIONS
1764	Adiponectin Controls Nutrient Availability in Hypothalamic Astrocytes. <i>International Journal of Molecular Sciences</i> , 2021, 22, 1587.	1.8	9
1765	Energetics of stochastic BCM type synaptic plasticity and storing of accurate information. <i>Journal of Computational Neuroscience</i> , 2021, 49, 71-106.	0.6	9
1767	How fast do mobile organisms respond to stimuli? Response times from bacteria to elephants and whales. <i>Physical Biology</i> , 2021, 18, 026002.	0.8	0
1769	An investigation into the relationship between stimulus property, neural response and its manifestation in the visual evoked potential involving retinal resolution. <i>European Journal of Neuroscience</i> , 2021, 53, 2612-2628.	1.2	3
1770	Peroxynitrite decomposition catalyst enhances respiratory function in isolated brain mitochondria. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2021, 320, H630-H641.	1.5	7
1773	Membrane Interactions and Toxicity by Misfolded Protein Oligomers. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 642623.	1.8	34
1775	Exploitation of image statistics with sparse coding in the case of stereo vision. <i>Neural Networks</i> , 2021, 135, 158-176.	3.3	6
1776	Modeling Working Memory in a Spiking Neuron Network Accompanied by Astrocytes. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 631485.	1.8	43
1777	Endothelial Control of Cerebral Blood Flow. <i>American Journal of Pathology</i> , 2021, 191, 1906-1916.	1.9	25
1778	Mitochondrial Functioning and the Relations among Health, Cognition, and Aging: Where Cell Biology Meets Cognitive Science. <i>International Journal of Molecular Sciences</i> , 2021, 22, 3562.	1.8	15
1779	Light responses of mammalian cones. <i>Pflugers Archiv European Journal of Physiology</i> , 2021, 473, 1555-1568.	1.3	9
1780	The why and how of sleep-dependent synaptic down-selection. <i>Seminars in Cell and Developmental Biology</i> , 2022, 125, 91-100.	2.3	28
1781	Dual-process brain mitochondria isolation preserves function and clarifies protein composition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	7
1782	An Analysis of the Neurological and Molecular Alterations Underlying the Pathogenesis of Alzheimer's Disease. <i>Cells</i> , 2021, 10, 546.	1.8	11
1783	Early Visual Saliency Based on Isolated Optimal Features. <i>Frontiers in Neuroscience</i> , 2021, 15, 645743.	1.4	4
1784	Light-induced uncertainty and information limits of optical neural recording. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 251, 119351.	2.0	1
1785	Glutamate and GABA Homeostasis and Neurometabolism in Major Depressive Disorder. <i>Frontiers in Psychiatry</i> , 2021, 12, 637863.	1.3	56
1786	Low neuronal metabolism during isoflurane-induced burst suppression is related to synaptic inhibition while neurovascular coupling and mitochondrial function remain intact. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 2640-2655.	2.4	23

#	ARTICLE	IF	CITATIONS
1787	IFN α 2 rescues neurodegeneration by regulating mitochondrial fission via STAT5, PGAM5, and Drp1. <i>EMBO Journal</i> , 2021, 40, e106868.	3.5	26
1788	Energy Metabolism in the Inner Retina in Health and Glaucoma. <i>International Journal of Molecular Sciences</i> , 2021, 22, 3689.	1.8	41
1789	A Brief on Biological Thermodynamics for Human Physiology. <i>Journal of Biomechanical Engineering</i> , 2021, 143, .	0.6	1
1790	Weight correlation reduction and features normalization: improving the performance for shallow networks. <i>Visual Computer</i> , 2022, 38, 2489-2498.	2.5	1
1791	Entropy estimation within in vitro neural-astrocyte networks as a measure of development instability. <i>Physical Review E</i> , 2021, 103, 042412.	0.8	1
1792	Communication consumes 35 times more energy than computation in the human cortex, but both costs are needed to predict synapse number. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	47
1793	Mimicking associative learning using an ion-trapping non-volatile synaptic organic electrochemical transistor. <i>Nature Communications</i> , 2021, 12, 2480.	5.8	128
1794	Changes in Drp1 Function and Mitochondrial Morphology Are Associated with the α -Synuclein Pathology in a Transgenic Mouse Model of Parkinson's Disease. <i>Cells</i> , 2021, 10, 885.	1.8	27
1795	A Metabolic Landscape for Maintaining Retina Integrity and Function. <i>Frontiers in Molecular Neuroscience</i> , 2021, 14, 656000.	1.4	29
1796	Brain microvasculature has a common topology with local differences in geometry that match metabolic load. <i>Neuron</i> , 2021, 109, 1168-1187.e13.	3.8	57
1798	Atypical neurological manifestations in Wernicke's encephalopathy due to hyperemesis gravidarum. <i>Nutritional Neuroscience</i> , 2022, 25, 2051-2056.	1.5	8
1800	Biological insights from the direct measurement of purine release. <i>Biochemical Pharmacology</i> , 2021, 187, 114416.	2.0	9
1801	Data Processing in Functional Near-Infrared Spectroscopy (fNIRS) Motor Control Research. <i>Brain Sciences</i> , 2021, 11, 606.	1.1	16
1802	In vivo brain imaging of mitochondrial Ca ²⁺ in neurodegenerative diseases with multiphoton microscopy. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2021, 1868, 118998.	1.9	8
1804	Curbing action potential generation or ATP-synthase leads to a decrease in in-cell pyruvate dehydrogenase activity in rat cerebrum slices. <i>Scientific Reports</i> , 2021, 11, 10211.	1.6	4
1805	PIP ₂ as the 'coin of the realm' for neurovascular coupling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	1
1806	Functional Weight of Somatic and Cognitive Networks and Asymmetry of Compensatory Mechanisms: Collaboration or Divergency among Hemispheres after Cerebrovascular Accident?. <i>Life</i> , 2021, 11, 495.	1.1	5
1808	Brain metabolism in tau and amyloid mouse models of Alzheimer's disease: An MRI study. <i>NMR in Biomedicine</i> , 2021, 34, e4568.	1.6	11

#	ARTICLE	IF	CITATIONS
1809	Functional dynamics of dopamine synthesis during monetary reward and punishment processing. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 2973-2985.	2.4	17
1810	Good Sense and Good Chemistry. , 2021, , 297-324.		0
1813	Mitochondrial dysfunction and traffic jams in amyotrophic lateral sclerosis. <i>Mitochondrion</i> , 2021, 58, 102-110.	1.6	11
1815	Metabolic dysfunction in OSA: Is there something new under the sun?. <i>Journal of Sleep Research</i> , 2022, 31, e13418.	1.7	31
1816	Understanding, engineering, and modulating the growth of neural networks: An interdisciplinary approach. <i>Biophysics Reviews</i> , 2021, 2, .	1.0	4
1817	LÃ©vy walk dynamics explain gamma burst patterns in primate cerebral cortex. <i>Communications Biology</i> , 2021, 4, 739.	2.0	11
1818	Putative Involvement of Endocrine Disruptors in the Alzheimer's Disease Via the Insulin-Regulated Aminopeptidase/GLUT4 Pathway. <i>Current Neuropharmacology</i> , 2021, 19, 939-956.	1.4	5
1819	Selective Neuron Vulnerability in Common and Rare Diseasesâ€”Mitochondria in the Focus. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 676187.	1.6	14
1820	Location Matters: Navigating Regional Heterogeneity of the Neurovascular Unit. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 696540.	1.8	16
1821	The Influence of Mitochondrial Dynamics and Function on Retinal Ganglion Cell Susceptibility in Optic Nerve Disease. <i>Cells</i> , 2021, 10, 1593.	1.8	23
1822	Bridging Cyanobacteria to Neurodegenerative Diseases: A New Potential Source of Bioactive Compounds against Alzheimerâ€™s Disease. <i>Marine Drugs</i> , 2021, 19, 343.	2.2	8
1824	Neuroprotective mechanisms of chronic physical exercise via reduction of Î²-amyloid protein in experimental models of Alzheimer's disease: A systematic review. <i>Life Sciences</i> , 2021, 275, 119372.	2.0	11
1825	Self-Organized Structuring of Recurrent Neuronal Networks for Reliable Information Transmission. <i>Biology</i> , 2021, 10, 577.	1.3	1
1826	Brain Functional Architecture and Human Understanding. , 0, , .		0
1827	An Unbalanced Synaptic Transmission: Cause or Consequence of the Amyloid Oligomers Neurotoxicity?. <i>International Journal of Molecular Sciences</i> , 2021, 22, 5991.	1.8	28
1828	The Role of Intermittent Fasting in Parkinson's Disease. <i>Frontiers in Neurology</i> , 2021, 12, 682184.	1.1	9
1829	Effects of Severe Sleep Disruption on the Synaptic Ultrastructure of Young Mice. <i>ENeuro</i> , 2021, 8, ENEURO.0077-21.2021.	0.9	6
1830	Systems modeling predicts that mitochondria ER contact sites regulate the postsynaptic energy landscape. <i>Npj Systems Biology and Applications</i> , 2021, 7, 26.	1.4	18

#	ARTICLE	IF	CITATIONS
1831	Microvascular basis of cognitive impairment in type 1 diabetes. , 2022, 229, 107929.		8
1832	Brain activity is contingent on neuropsychological function in a functional magnetic resonance imaging study of verbal working memory in amyotrophic lateral sclerosis. European Journal of Neurology, 2021, 28, 3051-3060.	1.7	2
1833	Synaptopathy Mechanisms in ALS Caused by C9orf72 Repeat Expansion. Frontiers in Cellular Neuroscience, 2021, 15, 660693.	1.8	9
1834	Quantitation of cerebral oxygen tension using phasor analysis and phosphorescence lifetime imaging microscopy (PLIM). Biomedical Optics Express, 2021, 12, 4192.	1.5	2
1835	Modeling and characterizing stochastic neurons based on in vitro voltage-dependent spike probability functions. European Physical Journal: Special Topics, 0, , 1.	1.2	1
1836	Miro1-dependent mitochondrial dynamics in parvalbumin interneurons. ELife, 2021, 10, .	2.8	13
1837	Extending the integrate-and-fire model to account for metabolic dependencies. European Journal of Neuroscience, 2021, 54, 5249-5260.	1.2	5
1838	Neurovascular Coupling in Development and Disease: Focus on Astrocytes. Frontiers in Cell and Developmental Biology, 2021, 9, 702832.	1.8	48
1839	Energy metabolism in childhood neurodevelopmental disorders. EBioMedicine, 2021, 69, 103474.	2.7	23
1841	A Sparsity-Driven Backpropagation-Less Learning Framework Using Populations of Spiking Growth Transform Neurons. Frontiers in Neuroscience, 2021, 15, 715451.	1.4	1
1842	Estrogen Deficiency Induces Mitochondrial Damage Prior to Emergence of Cognitive Deficits in a Postmenopausal Mouse Model. Frontiers in Aging Neuroscience, 2021, 13, 713819.	1.7	12
1843	Heterogeneous Expression of Nuclear Encoded Mitochondrial Genes Distinguishes Inhibitory and Excitatory Neurons. ENeuro, 2021, 8, ENEURO.0232-21.2021.	0.9	13
1845	Brain vulnerability and viability after ischaemia. Nature Reviews Neuroscience, 2021, 22, 553-572.	4.9	46
1846	Reactive Oxygen Species Mediate Activity-Regulated Dendritic Plasticity Through NADPH Oxidase and Aquaporin Regulation. Frontiers in Cellular Neuroscience, 2021, 15, 641802.	1.8	16
1847	When Does Alzheimer's Disease Really Start? The Role of Biomarkers. Focus (American Psychiatric) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.4	1
1848	Active dendrites enable strong but sparse inputs to determine orientation selectivity. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	36
1849	An Implicit Memory-Based Method for Supervised Pattern Recognition. Discrete Dynamics in Nature and Society, 2021, 2021, 1-15.	0.5	0
1850	Bio-inspired Model Based on Global-Local Hybrid Learning in Spiking Neural Network. , 2021, , .		2

#	ARTICLE	IF	CITATIONS
1851	Evolution of Activation Functions: An Empirical Investigation. ACM Transactions on Evolutionary Learning, 2021, 1, 1-36.	2.7	5
1852	How Energy Supports Our Brain to Yield Consciousness: Insights From Neuroimaging Based on the Neuroenergetics Hypothesis. Frontiers in Systems Neuroscience, 2021, 15, 648860.	1.2	3
1855	Cerebral Blood Flow Predicts Recovery in Children with Persistent Post-Concussion Symptoms after Mild Traumatic Brain Injury. Journal of Neurotrauma, 2021, 38, 2275-2283.	1.7	8
1856	Asymmetric left-right hippocampal glutamatergic modulation of cognitive control in ApoE4 isoform subjects is unrelated to neuroinflammation. European Journal of Neuroscience, 2021, 54, 5310-5326.	1.2	1
1857	Nature benefits revisited: Differences in gait kinematics between nature and urban images disappear when image types are controlled for likeability. PLoS ONE, 2021, 16, e0256635.	1.1	2
1858	Delayed cerebral enhancement on post-mortem computed tomography due to residual contrast medium administered shortly before death. Radiology Case Reports, 2021, 16, 2056-2060.	0.2	0
1859	Raman spectroscopy in cell biology and microbiology. Journal of Raman Spectroscopy, 2021, 52, 2348-2443.	1.2	81
1860	Network Structure of the Master Clock Is Important for Its Primary Function. Frontiers in Physiology, 2021, 12, 678391.	1.3	7
1861	Continual Lifelong Learning for Intelligent Agents. , 2021, , .		1
1862	Brain power. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	19
1863	Differential Abundance of Brain Mitochondrial Proteins in Yak and Cattle: A Proteomics-Based Study. Frontiers in Veterinary Science, 2021, 8, 663031.	0.9	2
1864	Glial glucose fuels the neuronal pentose phosphate pathway for long-term memory. Cell Reports, 2021, 36, 109620.	2.9	35
1865	Mini-review: Brain energy metabolism and its role in animal models of depression, bipolar disorder, schizophrenia and autism. Neuroscience Letters, 2021, 760, 136003.	1.0	15
1866	Measuring enzyme activities in crude homogenates: Na ⁺ /K ⁺ -ATPase as a case study in optimizing assays. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2021, 255, 110577.	0.7	9
1867	Mitochondria in Neuronal Health: From Energy Metabolism to Parkinson's Disease. Advanced Biology, 2021, 5, e2100663.	1.4	37
1868	Effect of handling on ATP utilization of cerebral Na,K-ATPase in rats with trimethyltin-induced neurodegeneration. Molecular and Cellular Biochemistry, 2021, 476, 4323-4330.	1.4	1
1869	Copper Imbalance in Alzheimer's Disease and Its Link with the Amyloid Hypothesis: Towards a Combined Clinical, Chemical, and Genetic Etiology. Journal of Alzheimer's Disease, 2021, 83, 23-41.	1.2	31
1870	Necdin: A purposive integrator of molecular interaction networks for mammalian neuron vitality. Genes To Cells, 2021, 26, 641-683.	0.5	7

#	ARTICLE	IF	CITATIONS
1871	A Drive towards Thermodynamic Efficiency for Dissipative Structures in Chemical Reaction Networks. <i>Entropy</i> , 2021, 23, 1115.	1.1	4
1872	Differences in the prevention and control of cardiovascular and cerebrovascular diseases. <i>Pharmacological Research</i> , 2021, 170, 105737.	3.1	26
1873	Decreased Brain pH and Pathophysiology in Schizophrenia. <i>International Journal of Molecular Sciences</i> , 2021, 22, 8358.	1.8	19
1875	Diverse mechanisms regulating brain energy supply at the capillary level. <i>Current Opinion in Neurobiology</i> , 2021, 69, 41-50.	2.0	13
1876	Neuroepithelial progenitors generate and propagate non-neuronal action potentials across the spinal cord. <i>Current Biology</i> , 2021, 31, 4584-4595.e4.	1.8	5
1877	Mitochondrial Dynamics: A Potential Therapeutic Target for Ischemic Stroke. <i>Frontiers in Aging Neuroscience</i> , 2021, 13, 721428.	1.7	29
1878	Glutamate metabolism and recycling at the excitatory synapse in health and neurodegeneration. <i>Neuropharmacology</i> , 2021, 196, 108719.	2.0	145
1879	Electrode pooling can boost the yield of extracellular recordings with switchable silicon probes. <i>Nature Communications</i> , 2021, 12, 5245.	5.8	4
1880	Sulforaphane improves mitochondrial metabolism in fibroblasts from patients with fragile X-associated tremor and ataxia syndrome. <i>Neurobiology of Disease</i> , 2021, 157, 105427.	2.1	9
1881	An artificial optoelectronic synapse based on an InAs nanowire phototransistor with negative photoresponse. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	1.5	5
1882	CB1R-dependent regulation of astrocyte physiology and astrocyte-neuron interactions. <i>Neuropharmacology</i> , 2021, 195, 108678.	2.0	24
1884	Mitochondrial disease, mitophagy, and cellular distress in methylmalonic acidemia. <i>Cellular and Molecular Life Sciences</i> , 2021, 78, 6851-6867.	2.4	16
1885	Modelling on the very large-scale connectome. <i>Journal of Physics Complexity</i> , 0, , .	0.9	3
1886	Primate neuronal connections are sparse in cortex as compared to mouse. <i>Cell Reports</i> , 2021, 36, 109709.	2.9	20
1887	How the brain fights fatty acidsâ€™ toxicity. <i>Neurochemistry International</i> , 2021, 148, 105050.	1.9	26
1888	Cerebrovascular alterations in NAFLD: Is it increasing our risk of Alzheimer's disease?. <i>Analytical Biochemistry</i> , 2022, 636, 114387.	1.1	12
1889	The Neurometabolic Basis of Mood Instability: The Parvalbumin Interneuron Linkâ€™ A Systematic Review and Meta-Analysis. <i>Frontiers in Pharmacology</i> , 2021, 12, 689473.	1.6	13
1890	Spatial information transfer in hippocampal place cells depends on trial-to-trial variability, symmetry of place-field firing, and biophysical heterogeneities. <i>Neural Networks</i> , 2021, 142, 636-660.	3.3	12

#	ARTICLE	IF	CITATIONS
1891	Biophysical models of intrinsic homeostasis: Firing rates and beyond. <i>Current Opinion in Neurobiology</i> , 2021, 70, 81-88.	2.0	4
1892	Optimising the energetic cost of the glutamatergic synapse. <i>Neuropharmacology</i> , 2021, 197, 108727.	2.0	7
1893	A human iPSC-derived inducible neuronal model of Niemann-Pick disease, type C1. <i>BMC Biology</i> , 2021, 19, 218.	1.7	7
1894	Motor patterning, ion regulation and spreading depolarization during CNS shutdown induced by experimental anoxia in <i>Locusta migratoria</i> . <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2021, 260, 111022.	0.8	10
1895	The effect of noise on the synchronization dynamics of the Kuramoto model on a large human connectome graph. <i>Neurocomputing</i> , 2021, 461, 696-704.	3.5	9
1896	Na ⁺ /K ⁺ -ATPase activity is regionally regulated by acute hypoxia in naked mole-rat brain. <i>Neuroscience Letters</i> , 2021, 764, 136244.	1.0	10
1897	Evolution of glutamatergic signaling and synapses. <i>Neuropharmacology</i> , 2021, 199, 108740.	2.0	36
1898	The voltage-depolarization performance vs the free energy cost of a single nACh receptor. <i>Journal of Theoretical Biology</i> , 2021, 531, 110904.	0.8	0
1899	Changes in cerebral arterial pulsatility and hippocampal volume: a transcranial doppler ultrasonography study. <i>Neurobiology of Aging</i> , 2021, 108, 110-121.	1.5	2
1900	White Matter Pathophysiology. , 2022, , 103-116.e4.		0
1901	Excitatoryâ€“inhibitory balance within EEG microstates and resting-state fMRI networks: assessed via simultaneous trimodal PETâ€“MRâ€“EEG imaging. <i>Translational Psychiatry</i> , 2021, 11, 60.	2.4	21
1902	Pericytes in Retinal. <i>Pancreatic Islet Biology</i> , 2021, , 125-144.	0.1	0
1903	PAM (PIK3/AKT/mTOR) signaling in glia: potential contributions to brain tumors in aging. <i>Aging</i> , 2021, 13, 1510-1527.	1.4	8
1904	Cellular bioenergetics in human iPSCâ€“derived glutamatergic neurons in health and disease. , 2021, , 205-221.		0
1905	Reconstruction and flux analysis of coupling between metabolic pathways of astrocytes and neurons: application to cerebral hypoxia. <i>Theoretical Biology and Medical Modelling</i> , 2007, 4, .	2.1	2
1906	Mitochondrial Migraine: Disentangling the angiopathy paradigm in m.3243A>G patients. <i>JIMD Reports</i> , 2019, 46, 52-62.	0.7	16
1907	A Simple Method to Simultaneously Track the Numbers of Expressed Channel Proteins in a Neuron. <i>Lecture Notes in Computer Science</i> , 2006, , 257-267.	1.0	2
1908	14 N-Acetylaspartate and N-Acetylaspartylglutamate. , 2007, , 305-346.		12

#	ARTICLE	IF	CITATIONS
1909	4.7 Ion Transport and Energy Metabolism. , 2007, , 429-465.		1
1910	In-Vivo NMR Spectroscopy of the Brain at High Fields. , 2006, , 373-409.		1
1911	pH regulation and acid/base-mediated transport in glial cells. , 2004, , 263-277.		2
1912	Small World Networks in Computational Neuroscience. , 2013, , 3057-3088.		3
1913	Fluorodeoxyglucose (FDG) Positron Emission Tomography (PET). Advances in Neurobiology, 2012, , 271-304.	1.3	2
1914	Microdialysis and Microfiltration: Technology and Cerebral Applications for Energy Substrates. Advances in Neurobiology, 2012, , 371-414.	1.3	1
1915	Studies of Brain Metabolism: A Historical Perspective. Advances in Neurobiology, 2012, , 909-920.	1.3	12
1917	Modelling and Simulation of Brain Energy Metabolism: Energy and Parkinson's Disease. , 2012, , 19-38.		4
1918	Energetics of Ion Transport in Dopaminergic Substantia nigra Neurons. , 2012, , 81-109.		2
1919	Structures, Mechanisms, and Energetics in Temporal Processing. Springer Handbook of Auditory Research, 2014, , 9-44.	0.3	6
1920	Study of Brain Bioenergetics and Function Using In Vivo MRS. Biological Magnetic Resonance, 2015, , 819-864.	0.4	1
1921	Neurovascular Coupling. Biological Magnetic Resonance, 2015, , 67-104.	0.4	5
1922	Physiology and Physics of the fMRI Signal. Biological Magnetic Resonance, 2015, , 163-213.	0.4	5
1923	Changes of Cerebral Tissue Oxygen Saturation at Sleep Transitions in Adolescents. Advances in Experimental Medicine and Biology, 2014, 812, 279-285.	0.8	8
1924	Physiological Basis of BOLD fMRI Decreases. Neuromethods, 2014, , 221-236.	0.2	2
1925	Imaging Vasodynamics in the Awake Mouse Brain with Two-Photon Microscopy. Neuromethods, 2014, , 55-73.	0.2	8
1926	Pharmaco-Based fMRI and Neurophysiology in Non-Human Primates. Neuromethods, 2017, , 37-66.	0.2	1
1927	Imaging Glutamate with Genetically Encoded Fluorescent Sensors. Neuromethods, 2018, , 117-153.	0.2	3

#	ARTICLE	IF	CITATIONS
1928	Extending the Life Span of Acute Neuronal Tissue for Imaging and Electrophysiological Studies. <i>Neuromethods</i> , 2020, , 235-259.	0.2	7
1929	Dynamic Imaging of Brain Function. <i>Methods in Molecular Biology</i> , 2009, 489, 3-21.	0.4	26
1930	Advanced In Vivo Heteronuclear MRS Approaches for Studying Brain Bioenergetics Driven by Mitochondria. <i>Methods in Molecular Biology</i> , 2009, 489, 317-357.	0.4	37
1931	Two-Photon Imaging of Capillary Blood Flow in Olfactory Bulb Glomeruli. <i>Methods in Molecular Biology</i> , 2009, 489, 81-91.	0.4	19
1932	Functional Neuroimaging of Spike-Wave Seizures. <i>Methods in Molecular Biology</i> , 2009, 489, 189-209.	0.4	18
1933	Pitfalls of Neuropsychometric Assessment and Alternative Investigative Approaches. , 2011, , 57-64.		1
1934	Role of Brain Glycogen During Ischemia, Aging and Cell-to-Cell Interactions. <i>Advances in Neurobiology</i> , 2019, 23, 347-361.	1.3	10
1935	Metabolism of Glycogen in Brain White Matter. <i>Advances in Neurobiology</i> , 2019, 23, 187-207.	1.3	7
1936	Stem Cells in Psychiatry. <i>Advances in Experimental Medicine and Biology</i> , 2019, 1201, 159-174.	0.8	4
1937	PET Neuroimaging in Dementia Conditions. , 2021, , 211-282.		7
1938	Regulated Exocytosis in Astrocytes is as Slow as the Metabolic Availability of Gliotransmitters: Focus on Glutamate and ATP. <i>Advances in Neurobiology</i> , 2014, 11, 81-101.	1.3	15
1939	The Evolution of Aesthetics: A Review of Models. , 2016, , 271-299.		7
1940	The Involvement of 5-HT _{2A} Receptor in the Regulation of Sleep and Wakefulness, and the Potential Therapeutic Use of Selective 5-HT _{2A} Receptor Antagonists and Inverse Agonists for the Treatment of an Insomnia Disorder. , 2018, , 311-337.		5
1941	On the Expressive Power of Deep Architectures. <i>Lecture Notes in Computer Science</i> , 2011, , 1-1.	1.0	34
1942	Consciousness and Neuroscience. , 2013, , 3-21.		3
1943	Two-Photon Imaging of Cerebral Vasodynamics in Awake Mice During Health and Disease. , 2014, , 25-43.		3
1944	Molecular Pathophysiology of White Matter Anoxic-Ischemic Injury. , 2004, , 867-881.		4
1945	Ocular Circulation. , 2011, , 243-273.		13

#	ARTICLE	IF	CITATIONS
1946	Metabolic Interactions between Neurons and Glial Cells. , 2011, , 308-324.		2
1947	Functional Magnetic Resonance Imaging (fMRI). , 2014, , 69-80.		3
1948	Memory in Food Caching Animals. , 2008, , 419-439.		10
1949	Cellular Mechanisms of Brain Energy Metabolism. , 2011, , 123-146.		6
1950	Cerebral Blood Flow and Metabolism and Cerebral Ischemia. , 2011, , 3537-3562.		2
1951	Complete neural stem cell (NSC) neuronal differentiation requires a branched chain amino acids-induced persistent metabolic shift towards energy metabolism. Pharmacological Research, 2020, 158, 104863.	3.1	27
1954	Beginning with biology: "Aspects of cognition" exist in the service of the brain's overall function as a resource-regulator. Behavioral and Brain Sciences, 2020, 43, e26.	0.4	1
1955	Efficiency of mitochondrial functioning as the fundamental biological mechanism of general intelligence (g).. Psychological Review, 2018, 125, 1028-1050.	2.7	58
1956	Turnover of extra-cellular glucose and lactate in the rat striatum estimated by equilibrium micro-dialysis. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S84-S84.	2.4	1
1957	Mechanisms and roles of mitochondrial localisation and dynamics in neuronal function. Neuronal Signaling, 2020, 4, NS20200008.	1.7	61
1958	Quantal synaptic failures enhance performance in a minimal hippocampal model. , 0, .		6
1959	What Is the Other 85 Percent of V1 Doing?. , 2006, , 182-212.		28
1960	Effect of Deep Pentobarbital Anesthesia on Neurotransmitter Metabolism In Vivo: On the Correlation of Total Glucose Consumption With Glutamatergic Action. Journal of Cerebral Blood Flow and Metabolism, 2002, , 1343-1351.	2.4	37
1961	Generalized Sensory Stimulation of Conscious Rats Increases Labeling of Oxidative Pathways of Glucose Metabolism When the Brain Glucose???Oxygen Uptake Ratio Rises. Journal of Cerebral Blood Flow and Metabolism, 2002, , 1490-1502.	2.4	35
1962	Time-dependent spatial specificity of high-resolution fMRI: insights into mesoscopic neurovascular coupling. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20190623.	1.8	11
1988	Effective and Efficient Computation with Multiple-timescale Spiking Recurrent Neural Networks. , 2020, , .		41
1989	Functional Tradeoffs in Axonal Scaling: Implications for Brain Function. Brain, Behavior and Evolution, 2008, 72, 159-167.	0.9	6
1991	The Ketogenic Diet. , 2010, , 417-439.		2

#	ARTICLE	IF	CITATIONS
1992	Sport-Related Traumatic Brain Injury. <i>Frontiers in Neuroscience</i> , 2015, , 17-40.	0.0	6
1993	Experimental autoimmune encephalomyelitis from a tissue energy perspective. <i>F1000Research</i> , 2017, 6, 1973.	0.8	8
1994	The future of non-invasive cerebral oximetry in neurosurgical procedures: A systematic review. <i>MNI Open Research</i> , 0, 2, 3.	1.0	3
1995	Neuronal synchrony and the relation between the blood-oxygen-level dependent response and the local field potential. <i>PLoS Biology</i> , 2017, 15, e2001461.	2.6	79
1996	A Theory of Rate Coding Control by Intrinsic Plasticity Effects. <i>PLoS Computational Biology</i> , 2012, 8, e1002349.	1.5	18
1998	Electrosensory Midbrain Neurons Display Feature Invariant Responses to Natural Communication Stimuli. <i>PLoS Computational Biology</i> , 2015, 11, e1004430.	1.5	26
1999	Cortical Composition Hierarchy Driven by Spine Proportion Economical Maximization or Wire Volume Minimization. <i>PLoS Computational Biology</i> , 2015, 11, e1004532.	1.5	14
2000	A Model for an Angular Velocity-Tuned Motion Detector Accounting for Deviations in the Corridor-Centering Response of the Bee. <i>PLoS Computational Biology</i> , 2016, 12, e1004887.	1.5	25
2001	Optimal synaptic signaling connectome for locomotory behavior in <i>Caenorhabditis elegans</i> : Design minimizing energy cost. <i>PLoS Computational Biology</i> , 2017, 13, e1005834.	1.5	19
2002	Simple models including energy and spike constraints reproduce complex activity patterns and metabolic disruptions. <i>PLoS Computational Biology</i> , 2020, 16, e1008503.	1.5	8
2003	Scaling of Brain Metabolism and Blood Flow in Relation to Capillary and Neural Scaling. <i>PLoS ONE</i> , 2011, 6, e26709.	1.1	61
2004	Hemodynamic Responses Evoked by Neuronal Stimulation via Channelrhodopsin-2 Can Be Independent of Intracortical Glutamatergic Synaptic Transmission. <i>PLoS ONE</i> , 2012, 7, e29859.	1.1	49
2005	Metabolic Maturation of Auditory Neurons in the Superior Olivary Complex. <i>PLoS ONE</i> , 2013, 8, e67351.	1.1	17
2006	Information and Perception of Meaningful Patterns. <i>PLoS ONE</i> , 2013, 8, e69154.	1.1	15
2007	Mitochondria Localize to the Cleavage Furrow in Mammalian Cytokinesis. <i>PLoS ONE</i> , 2013, 8, e72886.	1.1	30
2008	Activity-Dependent Adenosine Release May Be Linked to Activation of Na ⁺ -K ⁺ ATPase: An In Vitro Rat Study. <i>PLoS ONE</i> , 2014, 9, e87481.	1.1	25
2009	Structural Synaptic Plasticity Has High Memory Capacity and Can Explain Graded Amnesia, Catastrophic Forgetting, and the Spacing Effect. <i>PLoS ONE</i> , 2014, 9, e96485.	1.1	37
2010	Learning of Precise Spike Times with Homeostatic Membrane Potential Dependent Synaptic Plasticity. <i>PLoS ONE</i> , 2016, 11, e0148948.	1.1	20

#	ARTICLE	IF	CITATIONS
2011	A distribution model of functional connectome based on criticality and energy constraints. PLoS ONE, 2017, 12, e0177446.	1.1	7
2012	Phasor analysis of NADH FLIM identifies pharmacological disruptions to mitochondrial metabolic processes in the rodent cerebral cortex. PLoS ONE, 2018, 13, e0194578.	1.1	20
2013	Pericyte morphology and function. Histology and Histopathology, 2021, 36, 633-643.	0.5	18
2014	The MICOS complex, a structural element of mitochondria with versatile functions. Biological Chemistry, 2020, 401, 765-778.	1.2	33
2015	Brain energetics, mitochondria, and traumatic brain injury. Reviews in the Neurosciences, 2020, 31, 363-390.	1.4	12
2016	Loss of α -Synuclein Does Not Affect Mitochondrial Bioenergetics in Rodent Neurons. ENeuro, 2017, 4, ENEURO.0216-16.2017.	0.9	16
2017	Retrograde Mitochondrial Transport Is Essential for Organelle Distribution and Health in Zebrafish Neurons. Journal of Neuroscience, 2021, 41, 1371-1392.	1.7	35
2018	Actin-ATP Hydrolysis Is a Major Energy Drain for Neurons. Journal of Neuroscience, 2003, 23, 1.2-6.	1.7	237
2020	The other kind of perceptual learning. Learning & Perception, 2009, 1, 69-87.	2.4	3
2022	Metabolic drift in the aging brain. Aging, 2016, 8, 1000-1020.	1.4	89
2023	Spermidine alleviates cardiac aging by improving mitochondrial biogenesis and function. Aging, 2020, 12, 650-671.	1.4	60
2024	Neurochemical Markers in the Mammalian Brain: Structure, Roles in Synaptic Communication, and Pharmacological Relevance. Current Medicinal Chemistry, 2017, 24, 3077-3103.	1.2	14
2025	Key Role of Mitochondria in Alzheimer's Disease Synaptic Dysfunction. Current Pharmaceutical Design, 2013, 19, 6440-6450.	0.9	41
2026	Mitochondrial Biogenesis: A Therapeutic Target for Neurodevelopmental Disorders and Neurodegenerative Diseases. Current Pharmaceutical Design, 2014, 20, 5574-5593.	0.9	175
2027	New Therapeutics to Modulate Mitochondrial Function in Neurodegenerative Disorders. Current Pharmaceutical Design, 2017, 23, 731-752.	0.9	30
2028	The Relationship Between M in α -Calibrated fMRI and the Physiologic Modulators of fMRI. Open Neuroimaging Journal, 2011, 5, 112-119.	0.2	5
2029	Role of microglia in the process of inflammation in the hypoxic developing brain. Frontiers in Bioscience - Scholar, 2011, S3, 884.	0.8	36
2030	Enhancement of sleep slow waves: underlying mechanisms and practical consequences. Frontiers in Systems Neuroscience, 2014, 8, 208.	1.2	179

#	ARTICLE	IF	CITATIONS
2031	Glutamatergic Dysfunction and Synaptic Ultrastructural Alterations in Schizophrenia and Autism Spectrum Disorder: Evidence from Human and Rodent Studies. <i>International Journal of Molecular Sciences</i> , 2021, 22, 59.	1.8	29
2032	Misfolded protein aggregation and altered cellular pathways in neurodegenerative diseases. <i>STEMedicine</i> , 2020, 1, e63.	0.5	9
2033	Efficient information transfer by Poisson neurons. <i>Mathematical Biosciences and Engineering</i> , 2016, 13, 509-520.	1.0	8
2034	Mitochondrial dynamics in neurodegeneration: from cell death to energetic states. <i>AIMS Molecular Science</i> , 2015, 2, 161-174.	0.3	9
2035	Utility of magnetic resonance spectroscopic imaging for human epilepsy. <i>Quantitative Imaging in Medicine and Surgery</i> , 2015, 5, 313-22.	1.1	17
2037	Mitochondrial membrane protein Bcl-xL, a regulator of adult neuronal growth and synaptic plasticity: multiple functions beyond apoptosis. <i>Neural Regeneration Research</i> , 2014, 9, 1706.	1.6	7
2038	Moderate exercise prevents neurodegeneration in D-galactose-induced aging mice. <i>Neural Regeneration Research</i> , 2016, 11, 807.	1.6	24
2039	Is Type 2 Diabetes One of Such Aging Phenomena That Lack an Irreversible Structural Change?. <i>Journal of Diabetes & Metabolism</i> , 2015, 06, .	0.2	1
2040	The Evolution of Myelin: Theories and Application to Human Disease. <i>Journal of Evolutionary Medicine</i> , 2017, 5, 1-23.	0.5	10
2042	Spontaneous Electrical Activity and Spikes in the Tail of Marine Cercariae. <i>ISRN Parasitology</i> , 2013, 2013, 1-4.	0.6	3
2044	Decoding neural responses to temporal cues for sound localization. <i>ELife</i> , 2013, 2, e01312.	2.8	44
2045	Cell-intrinsic mechanisms of temperature compensation in a grasshopper sensory receptor neuron. <i>ELife</i> , 2014, 3, e02078.	2.8	31
2046	Deletion of a kinesin I motor unmasks a mechanism of homeostatic branching control by neurotrophin-3. <i>ELife</i> , 2015, 4, .	2.8	30
2047	Synaptic representation of locomotion in single cerebellar granule cells. <i>ELife</i> , 2015, 4, .	2.8	103
2048	Dendritic mitochondria reach stable positions during circuit development. <i>ELife</i> , 2016, 5, e11583.	2.8	74
2049	Quantitative neuroanatomy for connectomics in <i>Drosophila</i> . <i>ELife</i> , 2016, 5, .	2.8	256
2050	Inhibition in the auditory brainstem enhances signal representation and regulates gain in complex acoustic environments. <i>ELife</i> , 2016, 5, .	2.8	33
2051	A resource-rational theory of set size effects in human visual working memory. <i>ELife</i> , 2018, 7, .	2.8	44

#	ARTICLE	IF	CITATIONS
2052	Reactive oxygen species regulate activity-dependent neuronal plasticity in <i>Drosophila</i> . <i>ELife</i> , 2018, 7, .	2.8	68
2053	More homogeneous capillary flow and oxygenation in deeper cortical layers correlate with increased oxygen extraction. <i>ELife</i> , 2019, 8, .	2.8	68
2054	Energy efficient synaptic plasticity. <i>ELife</i> , 2020, 9, .	2.8	25
2055	Reconfiguration of functional brain networks and metabolic cost converge during task performance. <i>ELife</i> , 2020, 9, .	2.8	49
2056	Global sleep homeostasis reflects temporally and spatially integrated local cortical neuronal activity. <i>ELife</i> , 2020, 9, .	2.8	31
2057	Modular output circuits of the fastigial nucleus for diverse motor and nonmotor functions of the cerebellar vermis. <i>ELife</i> , 2020, 9, .	2.8	148
2058	How many neurons are sufficient for perception of cortical activity?. <i>ELife</i> , 2020, 9, .	2.8	82
2060	Glucose Metabolic Alteration of Cerebral Cortical Subareas in Rats with Renal Ischemia/Reperfusion Based on Small-Animal Positron Emission Tomography. <i>Current Medical Science</i> , 2021, 41, 961-965.	0.7	1
2061	Hippocampal disruptions of synaptic and astrocyte metabolism are primary events of early amyloid pathology in the 5xFAD mouse model of Alzheimer's disease. <i>Cell Death and Disease</i> , 2021, 12, 954.	2.7	41
2062	Neurovascular Coupling in Seizures. <i>Neuroglia (Basel, Switzerland)</i> , 2021, 2, 36-47.	0.3	2
2063	Presynaptic stochasticity improves energy efficiency and helps alleviate the stability-plasticity dilemma. <i>ELife</i> , 2021, 10, .	2.8	7
2065	Concept neurons in the human medial temporal lobe flexibly represent abstract relations between concepts. <i>Nature Communications</i> , 2021, 12, 6164.	5.8	16
2066	Effect of extracellular volume on the energy stored in transmembrane concentration gradients. <i>Physical Review E</i> , 2021, 104, 044409.	0.8	2
2067	Nitric Oxide Pathways in Neurovascular Coupling Under Normal and Stress Conditions in the Brain: Strategies to Rescue Aberrant Coupling and Improve Cerebral Blood Flow. <i>Frontiers in Physiology</i> , 2021, 12, 729201.	1.3	26
2068	From Neurodevelopmental to Neurodegenerative Disorders: The Vascular Continuum. <i>Frontiers in Aging Neuroscience</i> , 2021, 13, 749026.	1.7	34
2069	Dynamic Variation in Hippocampal Metabolism after Acute Stress Exposure: An In Vivo Proton Magnetic Resonance Spectroscopy Study at 9.4%T. <i>Journal of Spectroscopy</i> , 2021, 2021, 1-11.	0.6	1
2070	Morphological principles of neuronal mitochondria. <i>Journal of Comparative Neurology</i> , 2022, 530, 886-902.	0.9	14
2071	Task-evoked simultaneous FDG-PET and fMRI data for measurement of neural metabolism in the human visual cortex. <i>Scientific Data</i> , 2021, 8, 267.	2.4	2

#	ARTICLE	IF	CITATIONS
2072	Artificial Working Memory Constructed by Planar 2D Channel Memristors Enabling Brain-Inspired Hierarchical Memory Systems. <i>Advanced Intelligent Systems</i> , 2022, 4, 2100119.	3.3	6
2073	50 years of mnemonic persistent activity: quo vadis?. <i>Trends in Neurosciences</i> , 2021, 44, 888-902.	4.2	42
2074	Neural optimization: Understanding trade-offs with Pareto theory. <i>Current Opinion in Neurobiology</i> , 2021, 71, 84-91.	2.0	16
2075	Magnetic Resonance Spectroscopy: Principles and Applications. , 2002, , 252-285.		0
2076	Magnetic Resonance Spectroscopy. <i>Frontiers in Neuroscience</i> , 2002, , 257-290.	0.0	0
2077	Role of astrocytes in the formation, maturation and maintenance of synapses. , 2004, , 417-436.		1
2079	Topography and Dynamics of the Olfactory System. , 2006, , 259-282.		2
2080	Recursive ICA. , 2007, , 1273-1280.		6
2082	Selective Attention, Priming, and Foraging Behavior. , 2009, , 106-126.		3
2084	Low Frequency Fluctuation Component Analysis in Active Stimulation fMRI Paradigm. <i>Journal of the Korean Society of Magnetic Resonance in Medicine</i> , 2010, 14, 115.	0.1	1
2085	Physiological Basis of the BOLD Signal. , 2010, , 21-46.		2
2086	Intrinsic Activity and Consciousness. <i>Research and Perspectives in Neurosciences</i> , 2011, , 147-160.	0.4	0
2087	Functional Neuroimaging. , 2011, , 149-155.		0
2088	Information Theory and Perception: The Role of Constraints, and What Do We Maximize Information About?. , 2011, , 289-308.		0
2089	Membrane Potential as Stroke Target. , 2012, , 295-303.		0
2090	Energy-Efficient Threshold Circuits for Comparison Functions. <i>Interdisciplinary Information Sciences</i> , 2012, 18, 161-166.	0.2	0
2091	A Neuron Model Based on Hamilton Principle and Energy Coding. <i>Advances in Intelligent and Soft Computing</i> , 2012, , 395-401.	0.2	3
2092	Modeling Protein and Oxidative Metabolism in Parkinson's Disease. , 2012, , 131-150.		0

#	ARTICLE	IF	CITATIONS
2093	Mitochondrial Dysfunctions and Markers of Spinal Cord Injury. RSC Drug Discovery Series, 2012, , 106-121.	0.2	0
2095	Brain Restoration: A Function of Sleep. , 0, , .		0
2096	¹³ C Magnetic Resonance Spectroscopy in Neurobiology - Its Use in Monitoring Brain Energy Metabolism and in Identifying Novel Metabolic Substrates and Metabolic Pathways. , 0, , .		0
2097	Brain Damage - Bridging Between Basic Research and Clinics. , 2012, , .		9
2098	What can a mathematician do in neuroscience?. Mathematica Applicanda, 2012, 40, .	0.2	0
2099	Neural Mechanisms underlying Pheromone Communication System in Lepidoptera. Hikaku Seiri Seikagaku(Comparative Physiology and Biochemistry), 2013, 30, 45-58.	0.0	0
2100	Encephalization â€œ An Evolutionary Predisposition to Diabetes: A â€œLarge Brain Hypothesisâ€•explaining the mechanism of Diabetes.. IOSR Journal of Pharmacy and Biological Sciences, 0, 5, 66-72.	0.1	2
2101	Energy Metabolism Carbohydrate Metabolism in the Central Nervous System. , 2013, , 280-285.		0
2102	Astrocyte Regulation of Neurovascular Control. , 2013, , .		0
2103	The Central Role of Astrocytes in Neuroenergetics. , 2013, , .		0
2104	Release of Gliotransmitters and Transmitter Receptors in Astrocytes. , 2013, , .		7
2105	Glycogen and Energy Metabolism. , 2013, , .		2
2106	A Statistical Theory of Dendritic Morphology. Springer Series in Computational Neuroscience, 2014, , 107-126.	0.3	0
2107	Lower Bounds for Threshold Circuits of Bounded Energy. Interdisciplinary Information Sciences, 2014, 20, 27-50.	0.2	1
2110	Dementia Due to Neurodegenerative Disease: Molecular Imaging Findings. , 2014, , 185-211.		1
2111	Energy Consumption during Synaptic Transmission - A Review. International Journal of Livestock Research, 2014, 4, 1.	0.0	5
2112	Biophysical Models: Neurovascular Coupling, Cortical Microcircuits, and Metabolism. , 2014, , 1-15.		0
2113	Neurodegeneration in Mitochondrial Disorders. , 2016, , 33-58.		0

#	ARTICLE	IF	CITATIONS
2114	AMP-Activated Protein Kinase (AMPK). , 2016, , 1-12.		0
2115	Cellular and Molecular Regulation. , 2016, , 41-55.		0
2116	Aging and Microglial Activation in Neurodegenerative Diseases. Oxidative Stress in Applied Basic Research and Clinical Practice, 2016, , 107-131.	0.4	0
2117	Insufficiency of Cellular Energy (ICE) from the Alternative Cellular Energy (ACE) Pathway Limiting the Specialized Functions of Neuronal Cells. International Journal of Complementary & Alternative Medicine, 2016, 4, .	0.1	3
2118	Using Intrinsic Flavoprotein and NAD(P)H Imaging to Map Functional Circuitry in the Main Olfactory Bulb. PLoS ONE, 2016, 11, e0165342.	1.1	1
2121	Insufficiency of Cellular Energy (ICE) May Precede Neurodegeneration in Alzheimer's Disease and Be Treatable via the Alternative Cellular Energy (ACE) Pathway. Advances in Alzheimer's Disease, 2017, 06, 1-12.	0.3	6
2122	The cost of communication in the brain. ELife, 2017, 6, .	2.8	3
2126	A selective diffusion model of brain network activity. , 2018, , .		1
2127	AMP-Activated Protein Kinase (AMPK). , 2018, , 301-312.		0
2128	Neural Energy Properties and Mental Exploration Based on Neural Energy Field Gradient. Advances in Cognitive Neurodynamics, 2018, , 11-17.	0.1	0
2135	Computational Power of Threshold Circuits of Energy at most Two. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2018, E101.A, 1431-1439.	0.2	0
2137	Chapter 17. A theory of visual stress and its application to the use of coloured filters for reading. , 0, , 319-339.		0
2138	Brain Energy Metabolism. , 2019, , 1-19.		2
2139	Basic Principles of Functional MRI. , 2018, , 20-29.		0
2141	Fusing Concurrent EEG and fMRI Intrinsic Networks. , 2019, , 1-23.		0
2142	Cellular and Molecular Changes. , 2019, , 70-86.		0
2144	Fusing Concurrent EEG and fMRI Intrinsic Networks. , 2019, , 293-315.		2
2145	Evolutionary Drivers of Electric Signal Diversity. Springer Handbook of Auditory Research, 2019, , 191-226.	0.3	2

#	ARTICLE	IF	CITATIONS
2188	BRAIN ENERGETIC DEMANDS DURING COGNITIVE ACTIVITIES IN RELATION TO AEROBIC LOAD. Military Medical Science Letters (Vojenske Zdravotnicke Listy), 2019, 88, 159-165.	0.2	0
2189	Modelling Neuromodulated Information Flow and Energetic Consumption at Thalamic Relay Synapses. Lecture Notes in Computer Science, 2020, , 649-658.	1.0	0
2196	Local Design Principles at Hippocampal Synapses Revealed by an Energy-Information Trade-Off. ENeuro, 2020, 7, ENEURO.0521-19.2020.	0.9	1
2197	Neuro-Scientific Analysis of Weights in Neural Networks. International Journal of Pattern Recognition and Artificial Intelligence, 0, , .	0.7	1
2198	Can Ketogenic Diet Improve Alzheimer's Disease? Association With Anxiety, Depression, and Glutamate System. Frontiers in Nutrition, 2021, 8, 744398.	1.6	11
2199	Sensory Adaptation in the Whisker-Mediated Tactile System: Physiology, Theory, and Function. Frontiers in Neuroscience, 2021, 15, 770011.	1.4	8
2200	A missense mutation converts the Na ⁺ ,K ⁺ -ATPase into an ion channel and causes therapy-resistant epilepsy. Journal of Biological Chemistry, 2021, 297, 101355.	1.6	9
2201	Insights into the Pathogenesis of Neurodegenerative Diseases: Focus on Mitochondrial Dysfunction and Oxidative Stress. International Journal of Molecular Sciences, 2021, 22, 11847.	1.8	49
2202	Altered substrate metabolism in neurodegenerative disease: new insights from metabolic imaging. Journal of Neuroinflammation, 2021, 18, 248.	3.1	20
2203	Deformed wing virus infection affects the neurological function of Apis mellifera by altering extracellular adenosine signaling. Insect Biochemistry and Molecular Biology, 2021, 139, 103674.	1.2	7
2208	Synaptosomal bioenergetic defects in Alzheimer's disease. , 2020, , 473-490.		0
2209	Mapping of Recovery from Poststroke Aphasia: Comparison of PET and fMRI. , 2020, , 225-239.		1
2211	Die Evolution als Basis für das Verhalten. , 2020, , 1-20.		0
2213	Zelluläre Trauma-Biomechanik: Verletzungen des zentralen Nervensystems. , 2020, , 73-99.		0
2216	Susceptibility-Weighted Imaging for Investigating the Effects of Drainage Veins in Cerebellar Infarction. Iranian Journal of Radiology, 2020, 17, .	0.1	0
2217	Imaging early brain structural and functional development. Advances in Magnetic Resonance Technology and Applications, 2021, , 395-428.	0.0	0
2223	Neocortex saves energy by reducing coding precision during food scarcity. Neuron, 2022, 110, 280-296.e10.	3.8	43
2225	Bio-Inspired Scheme for Classification of Visual Information. , 0, , 238-262.		0

#	ARTICLE	IF	CITATIONS
2226	Mitochondrial Disease. , 2005, , 297-308.		0
2227	Animal Models in Functional Magnetic Resonance Imaging. , 2008, , 483-498.		0
2229	The Anorectic Phenotype of the anx/anx Mouse Is Associated with Hypothalamic Dysfunction. <i>Neuromethods</i> , 2021, , 297-317.	0.2	0
2232	From Positron to Pattern: A Conceptual and Practical Overview of 18F-FDG PET Imaging and Spatial Covariance Analysis. , 2021, , 73-104.		4
2237	Functional magnetic resonance imaging. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2004, 75, 6-12.	0.9	93
2238	The diverse functions of short-term plasticity components in synaptic computations. <i>Communicative and Integrative Biology</i> , 2011, 4, 543-8.	0.6	28
2239	Efficient coding of natural images with a population of noisy Linear-Nonlinear neurons. <i>Advances in Neural Information Processing Systems</i> , 2011, 24, 999-1007.	2.8	32
2241	Difference in transient ischemia-induced neuronal damage and glucose transporter-1 immunoreactivity in the hippocampus between adult and young gerbils. <i>Iranian Journal of Basic Medical Sciences</i> , 2016, 19, 521-8.	1.0	1
2242	Developmental Coupling of Cerebral Blood Flow and fMRI Fluctuations in Youth. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
2243	An economic approach to energy budgets: HOW many resources should living organisms spare?. <i>BioSystems</i> , 2022, 211, 104584.	0.9	0
2244	Quantitative Brain Positron Emission Tomography in Female 5XFAD Alzheimer Mice: Pathological Features and Sex-Specific Alterations. <i>Frontiers in Medicine</i> , 2021, 8, 745064.	1.2	9
2246	Association of Oxidative Stress with Neurological Disorders. <i>Current Neuropharmacology</i> , 2022, 20, 1046-1072.	1.4	15
2248	Lactate is an energy substrate for rodent cortical neurons and enhances their firing activity. <i>ELife</i> , 2021, 10, .	2.8	42
2249	Quantitative analysis of neuronal mitochondrial movement reveals patterns resulting from neurotoxicity of rotenone and 6 β -hydroxydopamine. <i>FASEB Journal</i> , 2021, 35, e22024.	0.2	2
2250	Characteristics of Neural Network Changes in Normal Aging and Early Dementia. <i>Frontiers in Aging Neuroscience</i> , 2021, 13, 747359.	1.7	20
2251	Lactate Supply from Astrocytes to Neurons and its Role in Ischemic Stroke-induced Neurodegeneration. <i>Neuroscience</i> , 2022, 481, 219-231.	1.1	19
2253	Energy matters: presynaptic metabolism and the maintenance of synaptic transmission. <i>Nature Reviews Neuroscience</i> , 2022, 23, 4-22.	4.9	66
2254	Correlated functional connectivity and glucose metabolism in brain white matter revealed by simultaneous MRI/positron emission tomography. <i>Magnetic Resonance in Medicine</i> , 2022, 87, 1507-1514.	1.9	9

#	ARTICLE	IF	CITATIONS
2255	Brain transcriptomes of zebrafish and mouse Alzheimer's disease knock-in models imply early disrupted energy metabolism. <i>DMM Disease Models and Mechanisms</i> , 2022, 15, .	1.2	8
2256	Synaptic vesicle pools are a major hidden resting metabolic burden of nerve terminals. <i>Science Advances</i> , 2021, 7, eabi9027.	4.7	50
2257	Presurgical Resting-State fMRI. <i>Medical Radiology</i> , 2022, , 197-215.	0.0	0
2258	The Neurobiology of Human Super-Communication: Insights for Medicine and Business. <i>World Journal of Neuroscience</i> , 2021, 11, 287-306.	0.1	1
2259	Magnetic Resonance Spectroscopy of Hypoxic-Ischemic Encephalopathy After Cardiac Arrest. <i>Neurology</i> , 2022, 98, .	1.5	5
2260	Phosphorylated tau as a toxic agent in synaptic mitochondria: implications in aging and Alzheimer's disease. <i>Neural Regeneration Research</i> , 2022, 17, 1645.	1.6	18
2261	Hypothalamic Microinflammation: New Paradigm In Obesity And Metabolic Disease. <i>Indonesian Biomedical Journal</i> , 2020, 12, 201-13.	0.2	0
2263	Mitochondria in Neurogenesis: Implications for Mitochondrial Diseases. <i>Stem Cells</i> , 2021, 39, 1289-1297.	1.4	27
2264	Neuroimmunometabolism: A New Pathological Nexus Underlying Neurodegenerative Disorders. <i>Journal of Neuroscience</i> , 2022, 42, 1888-1907.	1.7	9
2265	60 Years of Achievements by KSNM in Neuroimaging Research. <i>Nuclear Medicine and Molecular Imaging</i> , 2022, 56, 3-16.	0.6	0
2266	Astrocytes as Key Regulators of Brain Energy Metabolism: New Therapeutic Perspectives. <i>Frontiers in Physiology</i> , 2021, 12, 825816.	1.3	76
2267	Altered Structural and Functional MRI Connectivity in Type 2 Diabetes Mellitus Related Cognitive Impairment: A Review. <i>Frontiers in Human Neuroscience</i> , 2021, 15, 755017.	1.0	8
2269	Gender differences in cell volume fraction (CVF): a structural parameter reflecting the energy efficiency of maintaining the resting membrane potential. <i>NMR in Biomedicine</i> , 2022, , e4693.	1.6	3
2270	Clonidine and Brain Mitochondrial Energy Metabolism: Pharmacodynamic Insights Beyond Receptorial Effects. <i>Neurochemical Research</i> , 2022, 47, 1429-1441.	1.6	2
2271	Western and ketogenic diets in neurological disorders: can you tell the difference?. <i>Nutrition Reviews</i> , 2022, 80, 1927-1941.	2.6	7
2272	Constrained brain volume in an efficient coding model explains the fraction of excitatory and inhibitory neurons in sensory cortices. <i>PLoS Computational Biology</i> , 2022, 18, e1009642.	1.5	13
2273	Metabolic Features of Brain Function with Relevance to Clinical Features of Alzheimer and Parkinson Diseases. <i>Molecules</i> , 2022, 27, 951.	1.7	12
2274	How expensive is the astrocyte?. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2022, 42, 738-745.	2.4	24

#	ARTICLE	IF	CITATIONS
2275	Comprehensive summary of mitochondrial DNA alterations in the postmortem human brain: A systematic review. <i>EBioMedicine</i> , 2022, 76, 103815.	2.7	14
2277	Mitochondria, energy, and metabolism in neuronal health and disease. <i>FEBS Letters</i> , 2022, 596, 1095-1110.	1.3	60
2278	Modeling the effect of cerebral capillary blood flow on neuronal firing. <i>Journal of Theoretical Biology</i> , 2022, 537, 111018.	0.8	2
2279	Quantifying seizure termination patterns reveals limited pathways to seizure end. <i>Neurobiology of Disease</i> , 2022, 165, 105645.	2.1	11
2280	Efficient coding in the economics of human brain connectomics. <i>Network Neuroscience</i> , 2022, 6, 234-274.	1.4	18
2281	Computational mechanisms affecting the efficiency of resource use in the honey bee swarm. <i>Systems Research and Behavioral Science</i> , 0, , .	0.9	0
2282	Brain information processing capacity modeling. <i>Scientific Reports</i> , 2022, 12, 2174.	1.6	6
2283	Alcohol-Induced Neuroinflammatory Response and Mitochondrial Dysfunction on Aging and Alzheimer's Disease. <i>Frontiers in Behavioral Neuroscience</i> , 2021, 15, 778456.	1.0	10
2284	Photonic and optoelectronic neuromorphic computing. <i>APL Photonics</i> , 2022, 7, .	3.0	22
2285	Neuroinflammation and Mitochondrial Dysfunction Link Social Stress to Depression. <i>Current Topics in Behavioral Neurosciences</i> , 2022, , 59-93.	0.8	18
2286	Optoelectronic neuromorphic devices and their applications. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2022, 71, 148505.	0.2	4
2287	Longitudinal Changes in Global Cerebral Blood Flow in Cognitively Normal Older Adults: A Phase-Contrast MRI Study. <i>Journal of Magnetic Resonance Imaging</i> , 2022, 56, 1538-1545.	1.9	4
2288	Postsynaptic Potential Energy as Determinant of Synaptic Plasticity. <i>Frontiers in Computational Neuroscience</i> , 2022, 16, 804604.	1.2	1
2290	Physiological Adaptions to Acute Hypoxia. , 0, , .		1
2291	Frequency- and spike-timing-dependent mitochondrial Ca ²⁺ signaling regulates the metabolic rate and synaptic efficacy in cortical neurons. <i>ELife</i> , 2022, 11, .	2.8	13
2292	Decoupling of regional neural activity and inter-regional functional connectivity in Alzheimer's disease: A simultaneous PET/MR study. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2022, 49, 3173-3185.	3.3	4
2294	Emerging Evidence for the Widespread Role of Glutamatergic Dysfunction in Neuropsychiatric Diseases. <i>Nutrients</i> , 2022, 14, 917.	1.7	24
2295	The Predictive Power of Near-Infrared Spectroscopy in Improving Cognitive Problems in Patients Undergoing Brain Surgeries: A Systematic Review. <i>Anesthesiology and Pain Medicine</i> , 2022, 12, e116637.	0.5	3

#	ARTICLE	IF	CITATIONS
2296	Simultaneous Alteration of the Circadian Variation of Memory, Hippocampal Synaptic Plasticity, and Metabolism in a Triple Transgenic Mouse Model of Alzheimer's Disease. <i>Frontiers in Aging Neuroscience</i> , 2022, 14, 835885.	1.7	4
2297	Conductor of the Astrocyte-Neuron Metabolic Orchestra. , 0, , 109-128.		0
2298	Progressive Mitochondrial Dysfunction of Striatal Synapses in R6/2 Mouse Model of Huntington's Disease. <i>Journal of Huntington's Disease</i> , 2022, 11, 121-140.	0.9	5
2299	Synapses: The Brain's Energy-Demanding Sites. <i>International Journal of Molecular Sciences</i> , 2022, 23, 3627.	1.8	29
2300	Effects of Intermittent Fasting on Brain Metabolism. <i>Nutrients</i> , 2022, 14, 1275.	1.7	17
2301	Rational inattention in mice. <i>Science Advances</i> , 2022, 8, eabj8935.	4.7	10
2302	Collective Activity Bursting in a Population of Excitable Units Adaptively Coupled to a Pool of Resources. <i>Frontiers in Network Physiology</i> , 2022, 2, .	0.8	3
2303	Assessment of the In Vivo Relationship Between Cerebral Hypometabolism, Tau Deposition, TSPO Expression, and Synaptic Density in a Tauopathy Mouse Model: a Multi-tracer PET Study. <i>Molecular Neurobiology</i> , 2022, 59, 3402-3413.	1.9	10
2304	Developmental coupling of cerebral blood flow and fMRI fluctuations in youth. <i>Cell Reports</i> , 2022, 38, 110576.	2.9	23
2306	Analysis of Mitochondria by Single-Organellar Resolution. <i>Annual Review of Analytical Chemistry</i> , 2022, 15, .	2.8	5
2307	Reactive Oxygen Species: Angels and Demons in the Life of a Neuron. <i>NeuroSci</i> , 2022, 3, 130-145.	0.4	23
2308	Second-Order Conditioning Emulated in an Artificial Synaptic Network. <i>ACS Applied Electronic Materials</i> , 2022, 4, 1552-1557.	2.0	7
2309	Minimal requirements for a neuron to coregulate many properties and the implications for ion channel correlations and robustness. <i>eLife</i> , 2022, 11, .	2.8	20
2310	The Neuroprotective Effect of α -Lipoic Acid and/or Metformin against the Behavioral and Neurochemical Changes Induced by Hypothyroidism in Rat. <i>Neuroendocrinology</i> , 2022, 112, 1129-1142.	1.2	4
2311	Striatal synaptic bioenergetic and autophagic decline in premotor experimental parkinsonism. <i>Brain</i> , 2022, 145, 2092-2107.	3.7	18
2312	Efficacy of Tricaine (MS-222) and Hypothermia as Anesthetic Agents for Blocking Sensorimotor Responses in Larval Zebrafish. <i>Frontiers in Veterinary Science</i> , 2022, 9, 864573.	0.9	11
2314	Activation of Glutamate Transport Increases Arteriole Diameter in vivo: Implications for Neurovascular Coupling. <i>Frontiers in Cellular Neuroscience</i> , 2022, 16, 831061.	1.8	2
2315	Brain Metabolic Alterations in Alzheimer's Disease. <i>International Journal of Molecular Sciences</i> , 2022, 23, 3785.	1.8	28

#	ARTICLE	IF	CITATIONS
2316	Altered small-world property of a dynamic metabolic network in murine left hippocampus after exposure to acute stress. <i>Scientific Reports</i> , 2022, 12, 3885.	1.6	1
2317	Coexistence of the social semantic effect and non-semantic effect in the default mode network. <i>Brain Structure and Function</i> , 2023, 228, 321-339.	1.2	11
2318	From a Demand-Based to a Supply-Limited Framework of Brain Metabolism. <i>Frontiers in Integrative Neuroscience</i> , 2022, 16, 818685.	1.0	13
2319	The neural hierarchy of consciousness: A theoretical model and review on neurophysiology and NCCs. <i>Neuropsychologia</i> , 2022, 169, 108202.	0.7	3
2320	Reviewing the mitochondrial dysfunction paradigm in rodent models as platforms for neuropsychiatric disease research. <i>Mitochondrion</i> , 2022, 64, 82-102.	1.6	4
2321	Ultrastructural view of astrocyte arborization, astrocyte-astrocyte and astrocyte-synapse contacts, intracellular vesicle-like structures, and mitochondrial network. <i>Progress in Neurobiology</i> , 2022, 213, 102264.	2.8	42
2323	An Improved 2D U-Net Model Integrated Squeeze-and-Excitation Layer for Prostate Cancer Segmentation. <i>Scientific Programming</i> , 2021, 2021, 1-8.	0.5	2
2324	Presynaptic Mitochondrial Volume and Packing Density Scale with Presynaptic Power Demand. <i>Journal of Neuroscience</i> , 2022, 42, 954-967.	1.7	18
2325	Chromatin architecture at susceptible gene loci in cerebellar Purkinje cells characterizes DNA damage-induced neurodegeneration. <i>Science Advances</i> , 2021, 7, eabg6363.	4.7	18
2326	Targeting the Pancreatic Î±-Cell to Prevent Hypoglycemia in Type 1 Diabetes. <i>Diabetes</i> , 2021, 70, 2721-2732.	0.3	9
2329	Hemodynamic role of the aorta. , 2022, , 155-168.		0
2330	Astroglial Pathology in Major Depressive Disorders: Metabolic and Molecular Aspects. , 2022, , 293-321.		1
2332	Neuronal metabolism in learning and memory: the anticipatory activity perspective. <i>Neuroscience and Biobehavioral Reviews</i> , 2022, , 104664.	2.9	1
2342	Prognosis After Cardiac Arrest: The Additional Value of DWI and FLAIR to EEG. <i>Neurocritical Care</i> , 2022, 37, 302-313.	1.2	10
2343	A Ca ²⁺ -Dependent Mechanism Boosting Glycolysis and OXPHOS by Activating Aralar-Malate-Aspartate Shuttle, upon Neuronal Stimulation. <i>Journal of Neuroscience</i> , 2022, 42, 3879-3895.	1.7	18
2345	Markers of Hypoxia and Metabolism Correlate With Cell Differentiation in Retina and Lens Development. <i>Frontiers in Ophthalmology</i> , 2022, 2, .	0.2	0
2346	Avoiding Catastrophe: Active Dendrites Enable Multi-Task Learning in Dynamic Environments. <i>Frontiers in Neurorobotics</i> , 2022, 16, 846219.	1.6	8
2347	Sparse representations of high dimensional neural data. <i>Scientific Reports</i> , 2022, 12, 7295.	1.6	1

#	ARTICLE	IF	CITATIONS
2348	Mechanisms of DNA damage-mediated neurotoxicity in neurodegenerative disease. <i>EMBO Reports</i> , 2022, 23, e54217.	2.0	43
2349	Assaying activity-dependent arteriole and capillary responses in brain slices. <i>Neurophotonics</i> , 2022, 9, 031913.	1.7	1
2350	Learning induces coordinated neuronal plasticity of metabolic demands and functional brain networks. <i>Communications Biology</i> , 2022, 5, 428.	2.0	9
2351	Transcriptomes Suggest That Pinniped and Cetacean Brains Have a High Capacity for Aerobic Metabolism While Reducing Energy-Intensive Processes Such as Synaptic Transmission. <i>Frontiers in Molecular Neuroscience</i> , 2022, 15, .	1.4	5
2352	Diurnal changes in the efficiency of information transmission at a sensory synapse. <i>Nature Communications</i> , 2022, 13, 2613.	5.8	4
2353	Variability of regional glucose metabolism and the topology of functional networks in the human brain. <i>NeuroImage</i> , 2022, 257, 119280.	2.1	7
2354	Is Neuronal Fatigue the Cause of Migraine?. <i>Brain Sciences</i> , 2022, 12, 673.	1.1	0
2355	Social Brain Energetics: Ergonomic Efficiency, Neurometabolic Scaling, and Metabolic Polyphenism in Ants. <i>Integrative and Comparative Biology</i> , 2022, 62, 1471-1478.	0.9	1
2356	Oscillation-coordinated, noise-resistant information distribution via the subiculum. <i>Current Opinion in Neurobiology</i> , 2022, 75, 102556.	2.0	6
2357	Osmoregulation and the Hypothalamic Supraoptic Nucleus: From Genes to Functions. <i>Frontiers in Physiology</i> , 2022, 13, .	1.3	2
2358	Behavioral and Neural Activity-Dependent Recanalization of Plugged Capillaries in the Brain of Adult and Aged Mice. <i>Frontiers in Cellular Neuroscience</i> , 0, 16, .	1.8	1
2359	Abnormal brain oxygen homeostasis in an animal model of liver disease. <i>JHEP Reports</i> , 2022, , 100509.	2.6	13
2360	Brain metabolic connectivity reconfiguration in the semantic variant of primary progressive aphasia. <i>Cortex</i> , 2022, , .	1.1	3
2361	The sparse array elements selection in sparse imaging of circular-array photoacoustic tomography. <i>Journal of Innovative Optical Health Sciences</i> , 2022, 15, .	0.5	3
2362	Neurons as hierarchies of quantum reference frames. <i>BioSystems</i> , 2022, 219, 104714.	0.9	12
2363	Benchmarking Neuromorphic Hardware and Its Energy Expenditure. <i>Frontiers in Neuroscience</i> , 2022, 16, .	1.4	4
2364	¹⁸ F-FDG PET Imaging in Neurodegenerative Dementing Disorders: Insights into Subtype Classification, Emerging Disease Categories, and Mixed Dementia with Copathologies. <i>Journal of Nuclear Medicine</i> , 2022, 63, 2S-12S.	2.8	27
2368	A vitamina C na esquizofrenia apresenta benefício? Estudo preliminar com análise comportamental em ratos. <i>Jornal Brasileiro De Psiquiatria</i> , 0, , .	0.2	1

#	ARTICLE	IF	CITATIONS
2369	The global neuronal workspace as a broadcasting network. <i>Network Neuroscience</i> , 2022, 6, 1186-1204.	1.4	1
2370	Brain glucose metabolism in schizophrenia: a systematic review and meta-analysis of ¹⁸ F-FDG-PET studies in schizophrenia. <i>Psychological Medicine</i> , 2023, 53, 4880-4897.	2.7	17
2371	Modelling the Effects of Medium-Chain Triglycerides on Cerebral Ketone Body Metabolism. <i>Frontiers in Systems Biology</i> , 0, 2, .	0.5	0
2372	Therapeutic Effect of Buyang Huanwu Decoction on the Gut Microbiota and Hippocampal Metabolism in a Rat Model of Cerebral Ischemia. <i>Frontiers in Cellular and Infection Microbiology</i> , 0, 12, .	1.8	10
2373	Modulation of Reactive Oxygen Species Homeostasis as a Pleiotropic Effect of Commonly Used Drugs. <i>Frontiers in Aging</i> , 0, 3, .	1.2	3
2374	Parvalbumin interneuron dendrites enhance gamma oscillations. <i>Cell Reports</i> , 2022, 39, 110948.	2.9	14
2375	BrainPhys Neuronal Media Support Physiological Function of Mitochondria in Mouse Primary Neuronal Cultures. <i>Frontiers in Molecular Neuroscience</i> , 0, 15, .	1.4	4
2376	Information-optimal local features automatically attract covert and overt attention. <i>Scientific Reports</i> , 2022, 12, .	1.6	3
2377	Feature Activation through First Power Linear Unit with Sign. <i>Electronics (Switzerland)</i> , 2022, 11, 1980.	1.8	2
2379	Cross-attractor repertoire provides new perspective on structure-function relationship in the brain. <i>NeuroImage</i> , 2022, 259, 119401.	2.1	10
2380	Resting Rates of Blood Flow and Glucose Use per Neuron Are Proportional to Number of Endothelial Cells Available per Neuron Across Sites in the Rat Brain. <i>Frontiers in Integrative Neuroscience</i> , 0, 16, .	1.0	5
2381	Rapid cold hardening increases axonal Na ⁺ /K ⁺ -ATPase activity and enhances performance of a visual motion detection circuit in <i>Locusta migratoria</i> . <i>Journal of Experimental Biology</i> , 2022, 225, .	0.8	6
2382	Neural consequences of chronic sleep disruption. <i>Trends in Neurosciences</i> , 2022, 45, 678-691.	4.2	31
2383	Brain Energy Metabolism. , 2022, , 540-558.		0
2384	Financial Decision Making Within Thermodynamic Principles. <i>Financial Markets Institutions and Risks</i> , 2022, 6, 16-35.	0.3	1
2385	Biophysical Models: Neurovascular Coupling, Cortical Microcircuits, and Metabolism. , 2022, , 490-503.		0
2386	A Survey of the Metabolic Landscape of the Developing Cerebellum at Single-Cell Resolution. <i>Cerebellum</i> , 2022, 21, 838-850.	1.4	2
2387	Current Status of Our Understanding for Brain Integrated Functions and its Energetics. <i>Neurochemical Research</i> , 0, , .	1.6	1

#	ARTICLE	IF	CITATIONS
2388	Start Me Up: How Can Surrounding Gangliosides Affect Sodium-Potassium ATPase Activity and Steer towards Pathological Ion Imbalance in Neurons?. <i>Biomedicines</i> , 2022, 10, 1518.	1.4	2
2389	Two sparsities are better than one: unlocking the performance benefits of sparseâ€“sparse networks. <i>Neuromorphic Computing and Engineering</i> , 2022, 2, 034004.	2.8	2
2390	The Big Picture of Neurodegeneration: A Meta Study to Extract the Essential Evidence on Neurodegenerative Diseases in a Network-Based Approach. <i>Frontiers in Aging Neuroscience</i> , 0, 14, .	1.7	3
2391	Variation within the visually evoked neurovascular coupling response of the posterior cerebral artery is not influenced by age or sex. <i>Journal of Applied Physiology</i> , 2022, 133, 335-348.	1.2	6
2392	Supplementation of Regular Diet With Medium-Chain Triglycerides for Procognitive Effects: A Narrative Review. <i>Frontiers in Nutrition</i> , 0, 9, .	1.6	6
2393	Pareto optimality, economyâ€“effectiveness trade-offs and ion channel degeneracy: improving population modelling for single neurons. <i>Open Biology</i> , 2022, 12, .	1.5	11
2395	Neurovascular Coupling in Type 2 Diabetes With Cognitive Decline. A Narrative Review of Neuroimaging Findings and Their Pathophysiological Implications. <i>Frontiers in Endocrinology</i> , 0, 13, .	1.5	4
2396	Critical Role of Neuronal Vps35 in Blood Vessel Branching and Maturation in Developing Mouse Brain. <i>Biomedicines</i> , 2022, 10, 1653.	1.4	1
2398	The role of microglia immunometabolism in neurodegeneration: Focus on molecular determinants and metabolic intermediates of metabolic reprogramming. <i>Biomedicine and Pharmacotherapy</i> , 2022, 153, 113412.	2.5	12
2399	Comparative analysis of astrocytes in the prefrontal cortex of primates: Insights into the evolution of human brain energetics. <i>Journal of Comparative Neurology</i> , 2022, 530, 3106-3125.	0.9	2
2400	Early alterations in brain glucose metabolism and vascular function in a transgenic rat model of Alzheimerâ€™s disease. <i>Progress in Neurobiology</i> , 2022, 217, 102327.	2.8	8
2401	Nanodiamondâ€™Quantum Sensors Reveal Temperature Variation Associated to Hippocampal Neurons Firing. <i>Advanced Science</i> , 2022, 9, .	5.6	18
2402	After 55 Years of Neurorehabilitation, What Is the Plan?. <i>Brain Sciences</i> , 2022, 12, 982.	1.1	5
2403	Chronic AMPK Activation Reduces the Expression and Alters Distribution of Synaptic Proteins in Neuronal SH-SY5Y Cells. <i>Cells</i> , 2022, 11, 2354.	1.8	1
2405	Acute administration of ketone beta-hydroxybutyrate downregulates 7T proton magnetic resonance spectroscopy-derived levels of anterior and posterior cingulate GABA and glutamate in healthy adults. <i>Neuropsychopharmacology</i> , 2023, 48, 797-805.	2.8	10
2407	Differential role of neuronal glucose and <sc>PFKFB3</sc> in memory formation during development. <i>Glia</i> , 2022, 70, 2207-2231.	2.5	5
2408	Glycerol-3-Phosphate Shuttle Is a Backup System Securing Metabolic Flexibility in Neurons. <i>Journal of Neuroscience</i> , 2022, 42, 7339-7354.	1.7	4
2409	Biomarkers of imidacloprid toxicity in Japanese quail, <i>Coturnix coturnix japonica</i> . <i>Environmental Science and Pollution Research</i> , 2023, 30, 5662-5676.	2.7	5

#	ARTICLE	IF	CITATIONS
2410	Mitochondrial protein synthesis and the bioenergetic cost of neurodevelopment. <i>IScience</i> , 2022, 25, 104920.	1.9	8
2411	Astrocyte energy and neurotransmitter metabolism in Alzheimer's disease: Integration of the glutamate/GABA-glutamine cycle. <i>Progress in Neurobiology</i> , 2022, 217, 102331.	2.8	69
2412	Synaptic devices based on semiconductor nanocrystals. <i>Frontiers of Information Technology and Electronic Engineering</i> , 2022, 23, 1579-1601.	1.5	9
2413	Physical exercise and mitochondrial function: New therapeutic interventions for psychiatric and neurodegenerative disorders. <i>Frontiers in Neurology</i> , 0, 13, .	1.1	4
2414	Energy balance and synchronization via inductive-coupling in functional neural circuits. <i>Applied Mathematical Modelling</i> , 2023, 113, 175-187.	2.2	34
2415	Neural Tissue and Its Signals. , 2022, , 11-42.		0
2416	Metabolism in the Brain During Exercise in Humans. <i>Physiology in Health and Disease</i> , 2022, , 295-318.	0.2	0
2417	fMRI Studies of Opponent Interregional Interactions in the Macaca mulatta Brain. <i>Journal of Evolutionary Biochemistry and Physiology</i> , 2022, 58, 1001-1014.	0.2	1
2418	Efficient Temporal Coding in the Early Visual System: Existing Evidence and Future Directions. <i>Frontiers in Computational Neuroscience</i> , 0, 16, .	1.2	9
2419	Energy supply per neuron is constrained by capillary density in the mouse brain. <i>Frontiers in Integrative Neuroscience</i> , 0, 16, .	1.0	11
2420	Psychopharmacology and Evolution. , 2022, , 276-294.		0
2421	Thermal Management in Neuromorphic Materials, Devices, and Networks. <i>Advanced Materials</i> , 2023, 35, .	11.1	5
2422	Advancements in materials, devices, and integration schemes for a new generation of neuromorphic computers. <i>Materials Today</i> , 2022, 59, 80-106.	8.3	11
2424	Neurovascular Uncoupling: Multimodal Imaging Delineates the Acute Effects of 3,4-Methylenedioxymethamphetamine. <i>Journal of Nuclear Medicine</i> , 2023, 64, 466-471.	2.8	2
2425	Psychopharmacology and Evolution. , 2022, , 276-294.		1
2426	Adaptation in auditory processing. <i>Physiological Reviews</i> , 2023, 103, 1025-1058.	13.1	9
2428	Mitochondrial Dysfunction in Spinal Muscular Atrophy. <i>International Journal of Molecular Sciences</i> , 2022, 23, 10878.	1.8	13
2429	Active neural coordination of motor behaviors with internal states. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	3

#	ARTICLE	IF	CITATIONS
2430	A 3D atlas of functional human brain energetic connectome based on neuropil distribution. <i>Cerebral Cortex</i> , 2023, 33, 3996-4012.	1.6	6
2431	Mitochondrial Alterations in Neurons Derived from the Murine AppNL-F Knock-In Model of Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2022, 90, 565-583.	1.2	3
2432	Ca ²⁺ channels couple spiking to mitochondrial metabolism in substantia nigra dopaminergic neurons. <i>Science Advances</i> , 2022, 8, .	4.7	32
2433	Mitochondrial Ca ²⁺ uptake by the MCU facilitates pyramidal neuron excitability and metabolism during action potential firing. <i>Communications Biology</i> , 2022, 5, .	2.0	14
2435	How cytoskeletal proteins regulate mitochondrial energetics in cell physiology and diseases. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2022, 377, .	1.8	6
2436	Sodium channels and the ionic microenvironment of breast tumours. <i>Journal of Physiology</i> , 2023, 601, 1543-1553.	1.3	12
2437	Physiology of PNS axons relies on glycolytic metabolism in myelinating Schwann cells. <i>PLoS ONE</i> , 2022, 17, e0272097.	1.1	8
2438	Divergent Cellular Energetics, Glutamate Metabolism, and Mitochondrial Function Between Human and Mouse Cerebral Cortex. <i>Molecular Neurobiology</i> , 2022, 59, 7495-7512.	1.9	8
2439	After-image formation by adaptation to dynamic color gradients. <i>Attention, Perception, and Psychophysics</i> , 0, , .	0.7	0
2440	NLRP3 inflammasomes: A potential target to improve mitochondrial biogenesis in Parkinson's disease. <i>European Journal of Pharmacology</i> , 2022, 934, 175300.	1.7	15
2441	Methylphenidate enhances spontaneous fluctuations in reward and cognitive control networks in children with attention-deficit/hyperactivity disorder. <i>Biological Psychiatry: Cognitive Neuroscience and Neuroimaging</i> , 2022, , .	1.1	1
2442	The Na ⁺ /K ⁺ pump dominates control of glycolysis in hippocampal dentate granule cells. <i>ELife</i> , 0, 11, .	2.8	15
2443	Contrast polarity-specific mapping improves efficiency of neuronal computation for collision detection. <i>ELife</i> , 0, 11, .	2.8	2
2444	Energy-efficient network activity from disparate circuit parameters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	13
2445	Metabolic Recruitment in Brain Tissue. <i>Annual Review of Physiology</i> , 2023, 85, 115-135.	5.6	15
2446	Modeling Reactive Oxygen Species-Induced Axonal Loss in Leber Hereditary Optic Neuropathy. <i>Biomolecules</i> , 2022, 12, 1411.	1.8	4
2447	Low-Consumption Synaptic Devices Based on Gate-All-Around InAs Nanowire Field-Effect Transistors. <i>Nanoscale Research Letters</i> , 2022, 17, .	3.1	2
2448	Review of the Research Progress of Human Brain Oxygen Extraction Fraction by Magnetic Resonance Imaging. <i>Oxidative Medicine and Cellular Longevity</i> , 2022, 2022, 1-13.	1.9	1

#	ARTICLE	IF	CITATIONS
2449	A dynamic spike threshold with correlated noise predicts observed patterns of negative interval correlations in neuronal spike trains. <i>Biological Cybernetics</i> , 2022, 116, 611-633.	0.6	1
2450	Baseline oxygen consumption decreases with cortical depth. <i>PLoS Biology</i> , 2022, 20, e3001440.	2.6	6
2451	Optimal noise level for coding with tightly balanced networks of spiking neurons in the presence of transmission delays. <i>PLoS Computational Biology</i> , 2022, 18, e1010593.	1.5	14
2452	Light-induced synchronization of the SCN coupled oscillators and implications for entraining the HPA axis. <i>Frontiers in Endocrinology</i> , 0, 13, .	1.5	3
2454	Tonic extracellular glutamate and ischaemia: glutamate antiporter system x^c regulates anoxic depolarization in hippocampus. <i>Journal of Physiology</i> , 2023, 601, 607-629.	1.3	2
2455	Glial Glutamine Homeostasis in Health and Disease. <i>Neurochemical Research</i> , 2023, 48, 1100-1128.	1.6	18
2456	Visible light-driven indium-gallium-zinc-oxide optoelectronic synaptic transistor with defect engineering for neuromorphic computing system and artificial intelligence. <i>Applied Surface Science</i> , 2023, 610, 155532.	3.1	9
2457	Molecular imaging in prodromal Parkinson's disease. , 2023, , 251-272.		0
2458	Molecular imaging evidence in favor or against PDD and DLB overlap. , 2023, , 275-295.		1
2459	Inhibition of microRNA-200c preserves astrocyte sirtuin-1 and mitofusin-2, and protects against hippocampal neurodegeneration following global cerebral ischemia in mice. <i>Frontiers in Molecular Neuroscience</i> , 0, 15, .	1.4	3
2460	Glaucomatous optic neuropathy: Mitochondrial dynamics, dysfunction and protection in retinal ganglion cells. <i>Progress in Retinal and Eye Research</i> , 2023, 95, 101136.	7.3	24
2461	The Impact of Multivesicular Release on the Transmission of Sensory Information by Ribbon Synapses. <i>Journal of Neuroscience</i> , 0, , JN-RM-0717-22.	1.7	0
2462	Different Features of a Metabolic Connectivity Map and the Granger Causality Method in Revealing Directed Dopamine Pathways: A Study Based on Integrated PET/MR Imaging. <i>American Journal of Neuroradiology</i> , 0, , .	1.2	0
2464	Effects of δ^9 -tetrahydrocannabinol on mitochondria. , 2023, , 451-473.		0
2465	Paying the brain's energy bill. <i>Current Opinion in Neurobiology</i> , 2023, 78, 102668.	2.0	12
2466	MRI assessment of cerebral oxygen extraction fraction in the medial temporal lobe. <i>NeuroImage</i> , 2023, 266, 119829.	2.1	5
2468	Bioimpedance detection and analysis for the prefrontal functional area. , 2022, , .		0
2471	Continuously changing memories: a framework for proactive and non-linear consolidation. <i>Trends in Neurosciences</i> , 2023, 46, 8-19.	4.2	5

#	ARTICLE	IF	CITATIONS
2473	Artificial Intelligence and Advanced Materials. <i>Advanced Materials</i> , 2023, 35, .	11.1	10
2474	Cognition and brain oxygen metabolism improves after bariatric surgery-induced weight loss: A pilot study. <i>Frontiers in Endocrinology</i> , 0, 13, .	1.5	1
2475	Artificial neural network applied to fragile X-associated tremor/ataxia syndrome stage diagnosis based on peripheral mitochondrial bioenergetics and brain imaging outcomes. <i>Scientific Reports</i> , 2022, 12, .	1.6	2
2476	Type 2 Diabetes and Parkinson's Disease: A Focused Review of Current Concepts. <i>Movement Disorders</i> , 2023, 38, 162-177.	2.2	8
2478	Predictive coding is a consequence of energy efficiency in recurrent neural networks. <i>Patterns</i> , 2022, 3, 100639.	3.1	17
2479	Measuring capillary flow dynamics using interlaced two-photon volumetric scanning. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2023, 43, 595-609.	2.4	5
2480	Astrocyte L-Lactate Signaling in the ACC Regulates Visceral Pain Aversive Memory in Rats. <i>Cells</i> , 2023, 12, 26.	1.8	5
2481	Indirect Effects of Halorhodopsin Activation: Potassium Redistribution, Nonspecific Inhibition, and Spreading Depolarization. <i>Journal of Neuroscience</i> , 2023, 43, 685-692.	1.7	6
2482	Efficient processing of natural scenes in visual cortex. <i>Frontiers in Cellular Neuroscience</i> , 0, 16, .	1.8	1
2483	How axon and dendrite branching are guided by time, energy, and spatial constraints. <i>Scientific Reports</i> , 2022, 12, .	1.6	2
2485	The arrow of time of brain signals in cognition: Potential intriguing role of parts of the default mode network. <i>Network Neuroscience</i> , 2023, 7, 966-998.	1.4	7
2486	Synapse integrity and function: Dependence on protein synthesis and identification of potential failure points. <i>Frontiers in Molecular Neuroscience</i> , 0, 15, .	1.4	2
2487	Coherence resonance and stochastic synchronization in a small-world neural network: an interplay in the presence of spike-timing-dependent plasticity. <i>Nonlinear Dynamics</i> , 2023, 111, 7789-7805.	2.7	5
2488	Serotonergic neurons control cortical neuronal intracellular energy dynamics by modulating astrocyte-neuron lactate shuttle. <i>IScience</i> , 2023, 26, 105830.	1.9	3
2489	Burning the candle at both ends: Intraretinal signaling of intrinsically photosensitive retinal ganglion cells. <i>Frontiers in Cellular Neuroscience</i> , 0, 16, .	1.8	1
2490	Continual prune-and-select: class-incremental learning with specialized subnetworks. <i>Applied Intelligence</i> , 0, , .	3.3	1
2491	Striatal dopamine supports reward expectation and learning: A simultaneous PET/fMRI study. <i>NeuroImage</i> , 2023, 267, 119831.	2.1	10
2492	Bodily Boundaries of Sociality: Consciousness and the Self between Biology and Culture. <i>Russian Journal of Philosophical Sciences</i> , 2022, 65, 77-89.	0.3	0

#	ARTICLE	IF	CITATIONS
2494	Brain capillary pericytes are metabolic sentinels that control blood flow through a KATP channel-dependent energy switch. <i>Cell Reports</i> , 2022, 41, 111872.	2.9	11
2495	IC-SNN: Optimal ANN2SNN Conversion at Low Latency. <i>Mathematics</i> , 2023, 11, 58.	1.1	1
2497	Stochastic processes in the brain's neural network and their impact on perception and decision-making. <i>Physics-Uspexhi</i> , 2023, 66, 1224-1247.	0.8	0
2498	Pathogenesis of Dementia. <i>International Journal of Molecular Sciences</i> , 2023, 24, 543.	1.8	17
2500	Evolutionary and genomic perspectives of brain aging and neurodegenerative diseases. <i>Progress in Brain Research</i> , 2023, , 165-215.	0.9	4
2501	Neuron arbor geometry is sensitive to the limited-range fractal properties of their dendrites. <i>Frontiers in Network Physiology</i> , 0, 3, .	0.8	2
2502	Homeostasis of carbohydrates and reactive oxygen species is critically changed in the brain of middle-aged mice: Molecular mechanisms and functional reasons. <i>BBA Advances</i> , 2023, 3, 100077.	0.7	7
2503	Severity-dependent functional connectome and the association with glucose metabolism in the sensorimotor cortex of Parkinson's disease. <i>Frontiers in Neuroscience</i> , 0, 17, .	1.4	0
2504	Mitochondrial calcium cycling in neuronal function and neurodegeneration. <i>Frontiers in Cell and Developmental Biology</i> , 0, 11, .	1.8	10
2505	Biophysical parameters control signal transfer in spiking network. <i>Frontiers in Computational Neuroscience</i> , 0, 17, .	1.2	2
2506	Modeling the heterogeneity of sodium and calcium homeostasis between cortical and hippocampal astrocytes and its impact on bioenergetics. <i>Frontiers in Cellular Neuroscience</i> , 0, 17, .	1.8	5
2508	Energy metabolic pathways in neuronal development and function. , 2023, 2, .		0
2509	How astrocytic ATP shapes neuronal activity and brain circuits. <i>Current Opinion in Neurobiology</i> , 2023, 79, 102685.	2.0	2
2510	Dual role of nitric oxide in Alzheimer's disease. <i>Nitric Oxide - Biology and Chemistry</i> , 2023, 134-135, 23-37.	1.2	5
2511	Regulation of neuronal energy metabolism by calcium: Role of MCU and Aralar/malate-aspartate shuttle. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2023, 1870, 119468.	1.9	6
2512	Energy-efficiency computing of up and down transitions in a neural network. <i>Journal of Neurophysiology</i> , 2023, 129, 581-590.	0.9	1
2513	Flow measurement in open channels using imaging techniques in conjunction with a convolutional neural network. <i>Journal of Hydrology</i> , 2023, 618, 129183.	2.3	1
2514	How does neurovascular unit dysfunction contribute to multiple sclerosis?. <i>Neurobiology of Disease</i> , 2023, 178, 106028.	2.1	15

#	ARTICLE	IF	CITATIONS
2515	Optimal Scheduling of the Leaves of a Tree and the SVO Frequencies of Languages. <i>Lecture Notes in Computer Science</i> , 2022, , 3-14.	1.0	0
2517	Fast discrimination of fragmentary images: the role of local optimal information. <i>Frontiers in Human Neuroscience</i> , 0, 17, .	1.0	1
2518	An Isotonic Model of Neuron Swelling Based on Co-Transport of Salt and Water. <i>Membranes</i> , 2023, 13, 206.	1.4	1
2519	Pericytes and the Control of Blood Flow in Brain and Heart. <i>Annual Review of Physiology</i> , 2023, 85, 137-164.	5.6	9
2520	Effects of Pyruvate Kinase M2 (PKM2) Gene Deletion on Astrocyte-Specific Glycolysis and Global Cerebral Ischemia-Induced Neuronal Death. <i>Antioxidants</i> , 2023, 12, 491.	2.2	2
2521	Neuroinflammation, Energy and Sphingolipid Metabolism Biomarkers Are Revealed by Metabolic Modeling of Autistic Brains. <i>Biomedicines</i> , 2023, 11, 583.	1.4	2
2522	Resilience of compound action potential peaks to high-frequency firing in the mouse optic nerve. <i>Physiological Reports</i> , 2023, 11, .	0.7	0
2523	Interplay between biochemical processes and network properties generates neuronal up and down states at the tripartite synapse. <i>Physical Review E</i> , 2023, 107, .	0.8	1
2524	Neural population dynamics of computing with synaptic modulations. <i>ELife</i> , 0, 12, .	2.8	3
2525	Locus coeruleus and the defensive activation theory of rapid eye movement sleep: A mechanistic perspective. <i>Frontiers in Neuroscience</i> , 0, 17, .	1.4	1
2526	S1P Released by SGPL1-Deficient Astrocytes Enhances Astrocytic ATP Production via S1PR2,4, Thus Keeping Autophagy in Check: Potential Consequences for Brain Health. <i>International Journal of Molecular Sciences</i> , 2023, 24, 4581.	1.8	3
2527	The Economics of Attention. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
2528	Emerging photoelectric devices for neuromorphic vision applications: principles, developments, and outlooks. <i>Science and Technology of Advanced Materials</i> , 2023, 24, .	2.8	9
2529	Neuro-immunohistochemical and molecular gene expression variations during hibernation and activity phases between <i>Rana mascareniensis</i> and <i>Rana ridibunda</i> . <i>Journal of Thermal Biology</i> , 2023, 114, 103490.	1.1	1
2530	The effects of physical activity on glutamate neurotransmission in neuropsychiatric disorders. <i>Frontiers in Sports and Active Living</i> , 0, 5, .	0.9	4
2531	Natural products regulate mitochondrial function in cognitive dysfunction – A scoping review. <i>Frontiers in Pharmacology</i> , 0, 14, .	1.6	0
2533	Milestone Review: Metabolic dynamics of glutamate and GABA mediated neurotransmission – The essential roles of astrocytes. <i>Journal of Neurochemistry</i> , 2023, 166, 109-137.	2.1	17
2534	Whole-body metabolic connectivity framework with functional PET. <i>NeuroImage</i> , 2023, 271, 120030.	2.1	7

#	ARTICLE	IF	CITATIONS
2536	Synaptic modifications transform neural networks to function without oxygen. <i>BMC Biology</i> , 2023, 21, .	1.7	3
2537	Superior sagittal sinus flow as a proxy for tracking global cerebral blood flow dynamics during wakefulness and sleep. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2023, 43, 1340-1350.	2.4	1
2539	Nitric Oxide/Nitric Oxide Synthase System in the Pathogenesis of Neurodegenerative Disorders—An Overview. <i>Antioxidants</i> , 2023, 12, 753.	2.2	10
2540	Catalyzing next-generation Artificial Intelligence through NeuroAI. <i>Nature Communications</i> , 2023, 14, .	5.8	65
2543	The roles of brain lipids and polar metabolites in the hypoxia tolerance of deep-diving pinnipeds. <i>Journal of Experimental Biology</i> , 2023, 226, .	0.8	0
2544	Axonal transport deficits in the pathogenesis of diabetic peripheral neuropathy. <i>Frontiers in Endocrinology</i> , 0, 14, .	1.5	3
2545	Direct association with the vascular basement membrane is a frequent feature of myelinating oligodendrocytes in the neocortex. <i>Fluids and Barriers of the CNS</i> , 2023, 20, .	2.4	4
2547	Cannabinoids and Multiple Sclerosis: A Critical Analysis of Therapeutic Potentials and Safety Concerns. <i>Pharmaceutics</i> , 2023, 15, 1151.	2.0	1
2548	Pushing the Bounds of Bounded Optimality and Rationality. <i>Cognitive Science</i> , 2023, 47, .	0.8	2
2549	Violation of the ultrastructural size principle in the dorsolateral prefrontal cortex underlies working memory impairment in the aged common marmoset (<i>Callithrix jacchus</i>). <i>Frontiers in Aging Neuroscience</i> , 0, 15, .	1.7	6
2550	Transfer of nuclear and ribosomal material from Sox10-lineage cells to neurons in the mouse brain. <i>Journal of Experimental Medicine</i> , 2023, 220, .	4.2	2
2551	RGS14 limits seizure-induced mitochondrial oxidative stress and pathology in hippocampus. <i>Neurobiology of Disease</i> , 2023, 181, 106128.	2.1	1
2552	Astrocytic aerobic glycolysis provides lactate to support neuronal oxidative metabolism in the hippocampus. <i>BioFactors</i> , 2023, 49, 875-886.	2.6	1
2553	Metabolic switch in the aging astrocyte supported via integrative approach comprising network and transcriptome analyses. <i>Aging</i> , 2023, 15, 9896-9912.	1.4	2
2554	Multinuclear Magnetic Resonance Spectroscopy at Ultra-High-Field: Assessing Human Cerebral Metabolism in Healthy and Diseased States. <i>Metabolites</i> , 2023, 13, 577.	1.3	3
2555	Peripheral and central sensation: multisensory orienting and recognition across species. <i>Trends in Cognitive Sciences</i> , 2023, 27, 539-552.	4.0	3
2562	Ageing and the Autonomic Nervous System. <i>Sub-Cellular Biochemistry</i> , 2023, , 201-252.	1.0	2
2571	Research Advances of Mitochondrial Dysfunction in Perioperative Neurocognitive Disorders. <i>Neurochemical Research</i> , 0, , .	1.6	0

#	ARTICLE	IF	CITATIONS
2590	Biomolecular Markers of Brain Aging. <i>Advances in Experimental Medicine and Biology</i> , 2023, , 111-126.	0.8	0
2607	Predictive Coding Light: learning compact visual codes by combining excitatory and inhibitory spike timing-dependent plasticity [*] . , 2023, ,		0
2624	Synaptic Stripping: How Pruning Can Bring Dead Neurons Back to Life. , 2023, ,		0
2677	Spinal Cord Vasculature: General Anatomy and Physiology. , 2023, , 121-149.		0
2678	Neurogenic Regulation of Cerebral Blood Flow. <i>Journal of Evolutionary Biochemistry and Physiology</i> , 2023, 59, 2196-2209.	0.2	0
2689	A Sparsity-Adapted Hardware Implementation of SNN for Cortical Spike Trains Decoding. , 2023, ,		0
2690	The Brain as an Organ. , 2023, , 7-27.		0
2707	Fractal Resonance: Can Fractal Geometry Be Used to Optimize the Connectivity of Neurons to Artificial Implants?. <i>Advances in Neurobiology</i> , 2024, , 877-906.	1.3	0