Eszter Farkas

List of Publications by Year
in descending order

94	6,494	70961 41	69108 77
papers	citations	h-index	g-index

98	98	98	7254
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Malignant astrocyte swelling and impaired glutamate clearance drive the expansion of injurious spreading depolarization foci. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 584-599.	2.4	21
2	Transient Hypoperfusion to Ischemic/Anoxic Spreading Depolarization is Related to Autoregulatory Failure in the Rat Cerebral Cortex. Neurocritical Care, 2022, 37, 112-122.	1.2	6
3	Microglia modulate blood flow, neurovascular coupling, and hypoperfusion via purinergic actions. Journal of Experimental Medicine, 2022, 219, .	4.2	94
4	The Critical Role of Spreading Depolarizations in Early Brain Injury: Consensus and Contention. Neurocritical Care, 2022, 37, 83-101.	1.2	36
5	Biocompatible poly(ethylene succinate) polyester with molecular weight dependent drug release properties. International Journal of Pharmaceutics, 2022, 618, 121653.	2.6	4
6	Questioning Glutamate Excitotoxicity in Acute Brain Damage: The Importance of Spreading Depolarization. Neurocritical Care, 2022, 37, 11-30.	1.2	18
7	Astrocyte Ca2+ Waves and Subsequent Non-Synchronized Ca2+ Oscillations Coincide with Arteriole Diameter Changes in Response to Spreading Depolarization. International Journal of Molecular Sciences, 2021, 22, 3442.	1.8	1
8	Comparative analysis of spreading depolarizations in brain slices exposed to osmotic or metabolic stress. BMC Neuroscience, 2021, 22, 33.	0.8	5
9	N,N-Dimethyltryptamine attenuates spreading depolarization and restrains neurodegeneration by sigma-1 receptor activation in the ischemic rat brain. Neuropharmacology, 2021, 192, 108612.	2.0	25
10	The Effect of Molecular Weight on the Solubility Properties of Biocompatible Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 T	2.0	15
11	Which Spreading Depolarizations Are Deleterious To Brain Tissue?. Neurocritical Care, 2020, 32, 317-322.	1.2	40
12	What Should a Clinician Do When Spreading Depolarizations are Observed in a Patient?. Neurocritical Care, 2020, 32, 306-310.	1.2	36
13	Chitosan nanoparticles release nimodipine in response to tissue acidosis to attenuate spreading depolarization evoked during forebrain ischemia. Neuropharmacology, 2020, 162, 107850.	2.0	23
14	Heart-cutting two-dimensional liquid chromatography coupled to quadrupole-orbitrap high resolution mass spectrometry for determination of N,N-dimethyltryptamine in rat plasma and brain; Method development and application. Journal of Pharmaceutical and Biomedical Analysis, 2020, 191, 113615.	1.4	5
15	Tissue Acidosis Associated with Ischemic Stroke to Guide Neuroprotective Drug Delivery. Biology, 2020, 9, 460.	1.3	40
16	Nicotinamide mononucleotide (NMN) supplementation promotes neurovascular rejuvenation in aged mice: transcriptional footprint of SIRT1 activation, mitochondrial protection, anti-inflammatory, and anti-apoptotic effects. GeroScience, 2020, 42, 527-546.	2.1	85
17	The antagonism of prostaglandin FP receptors inhibits the evolution of spreading depolarization in an experimental model of global forebrain ischemia. Neurobiology of Disease, 2020, 137, 104780.	2.1	6
18	Microglia alter the threshold of spreading depolarization and related potassium uptake in the mouse brain. Journal of Cerebral Blood Flow and Metabolism, 2020, 40, S67-S80.	2.4	29

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19	Single-cell RNA sequencing identifies senescent cerebromicrovascular endothelial cells in the aged mouse brain. GeroScience, 2020, 42, 429-444.	2.1	102
20	NMN Rescues Endothelial Function and Neurovascular Coupling, Improving Cognitive Function in Aged Mice. Innovation in Aging, 2020, 4, 121-121.	0.0	1
21	Potentiation of Aminoglycoside Lethality by C 4 -Dicarboxylates Requires RpoN in Antibiotic-Tolerant Pseudomonas aeruginosa. Antimicrobial Agents and Chemotherapy, 2019, 63, .	1.4	9
22	Treatment with the poly(ADP-ribose) polymerase inhibitor PJ-34 improves cerebromicrovascular endothelial function, neurovascular coupling responses and cognitive performance in aged mice, supporting the NAD+ depletion hypothesis of neurovascular aging. GeroScience, 2019, 41, 533-542.	2.1	84
23	Cerebral venous congestion promotes blood-brain barrier disruption and neuroinflammation, impairing cognitive function in mice. GeroScience, 2019, 41, 575-589.	2.1	47
24	Nicotinamide mononucleotide (NMN) supplementation promotes anti-aging miRNA expression profile in the aorta of aged mice, predicting epigenetic rejuvenation and anti-atherogenic effects. GeroScience, 2019, 41, 419-439.	2.1	75
25	Nicotinamide mononucleotide (NMN) treatment attenuates oxidative stress and rescues angiogenic capacity in aged cerebromicrovascular endothelial cells: a potential mechanism for the prevention of vascular cognitive impairment. GeroScience, 2019, 41, 619-630.	2.1	97
26	Role of age-related alterations of the cerebral venous circulation in the pathogenesis of vascular cognitive impairment. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H1124-H1140.	1.5	56
27	Role of endothelial NAD⁺deficiency in age-related vascular dysfunction. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H1253-H1266.	1.5	68
28	Nicotinamide mononucleotide (NMN) supplementation rescues cerebromicrovascular endothelial function and neurovascular coupling responses and improves cognitive function in aged mice. Redox Biology, 2019, 24, 101192.	3.9	181
29	The impact of dihydropyridine derivatives on the cerebral blood flow response to somatosensory stimulation and spreading depolarization. British Journal of Pharmacology, 2019, 176, 1222-1234.	2.7	17
30	Aging Impairs Cerebrovascular Reactivity at Preserved Resting Cerebral Arteriolar Tone and Vascular Density in the Laboratory Rat. Frontiers in Aging Neuroscience, 2019, 11, 301.	1.7	12
31	Susceptibility of the cerebral cortex to spreading depolarization in neurological disease states: The impact of aging. Neurochemistry International, 2019, 127, 125-136.	1.9	24
32	Interaction of obesity and Nrf2 deficiency exacerbates vascular aging: potential role of endothelial senescence. FASEB Journal, 2019, 33, 518.9.	0.2	0
33	Nrf2 deficiency in aged mice exacerbates cellular senescence promoting cerebrovascular inflammation. FASEB Journal, 2019, 33, 518.8.	0.2	0
34	Treatment with the mitochondrialâ€targeted antioxidant peptide <scp>SS</scp>â€31 rescues neurovascular coupling responses and cerebrovascular endothelial function and improves cognition in aged mice. Aging Cell, 2018, 17, e12731.	3.0	128
35	Nrf2 Deficiency Exacerbates Obesity-Induced Oxidative Stress, Neurovascular Dysfunction, Bloodâ€"Brain Barrier Disruption, Neuroinflammation, Amyloidogenic Gene Expression, and Cognitive Decline in Mice, Mimicking the Aging Phenotype. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2018, 73, 853-863.	1.7	111
36	Spectral and Multifractal Signature of Cortical Spreading Depolarisation in Aged Rats. Frontiers in Physiology, 2018, 9, 1512.	1.3	2

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37	Nrf2 deficiency in aged mice exacerbates cellular senescence promoting cerebrovascular inflammation. GeroScience, 2018, 40, 513-521.	2.1	114
38	Large-conductance Ca2+-activated potassium channels are potently involved in the inverse neurovascular response to spreading depolarization. Neurobiology of Disease, 2018, 119, 41-52.	2.1	31
39	Preparation of novel tissue acidosis-responsive chitosan drug nanoparticles: Characterization and in vitro release properties of Ca2+ channel blocker nimodipine drug molecules. European Journal of Pharmaceutical Sciences, 2018, 123, 79-88.	1.9	23
40	The continuum of spreading depolarizations in acute cortical lesion development: Examining LeÃ£oâ€™s legacy. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 1571-1594.	2.4	297
41	Recording, analysis, and interpretation of spreading depolarizations in neurointensive care: Review and recommendations of the COSBID research group. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 1595-1625.	2.4	255
42	Advancing age and ischemia elevate the electric threshold to elicit spreading depolarization in the cerebral cortex of young adult rats. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 1763-1775.	2.4	23
43	Cerebromicrovascular dysfunction predicts cognitive decline and gait abnormalities in a mouse model of whole brain irradiation-induced accelerated brain senescence. GeroScience, 2017, 39, 33-42.	2.1	78
44	Spreading depolarization remarkably exacerbates ischemia-induced tissue acidosis in the young and aged rat brain. Scientific Reports, 2017, 7, 1154.	1.6	41
45	Systemic administration of l -kynurenine sulfate induces cerebral hypoperfusion transients in adult C57Bl/6 mice. Microvascular Research, 2017, 114, 19-25.	1.1	6
46	Age or ischemia uncouples the blood flow response, tissue acidosis, and direct current potential signature of spreading depolarization in the rat brain. American Journal of Physiology - Heart and Circulatory Physiology, 2017, 313, H328-H337.	1.5	25
47	Demonstration of impaired neurovascular coupling responses in TG2576 mouse model of Alzheimerâ€™s disease using functional laser speckle contrast imaging. GeroScience, 2017, 39, 465-473.	2.1	70
48	Pharmacologically induced impairment of neurovascular coupling responses alters gait coordination in mice. GeroScience, 2017, 39, 601-614.	2.1	45
49	Contribution of prostanoid signaling to the evolution of spreading depolarization and the associated cerebral blood flow response. Scientific Reports, 2016, 6, 31402.	1.6	13
50	Traumatic brain injury-induced autoregulatory dysfunction and spreading depression-related neurovascular uncoupling: Pathomechanisms, perspectives, and therapeutic implications. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 311, H1118-H1131.	1.5	85
51	<scp>IGF</scp>â€1 deficiency impairs neurovascular coupling in mice: implications for cerebromicrovascular aging. Aging Cell, 2015, 14, 1034-1044.	3.0	121
52	Is Vasomotion in Cerebral Arteries Impaired in Alzheimerâ€™s Disease?. Journal of Alzheimer's Disease, 2015, 46, 35-53.	1.2	73
53	Pharmacologically-Induced Neurovascular Uncoupling is Associated with Cognitive Impairment in Mice. Journal of Cerebral Blood Flow and Metabolism, 2015, 35, 1871-1881.	2.4	105
54	High incidence of adverse cerebral blood flow responses to spreading depolarization in the aged ischemic rat brain. Neurobiology of Aging, 2015, 36, 3269-3277.	1.5	34

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55	Vascular dysfunction in the pathogenesis of Alzheimer's disease â€" A review of endothelium-mediated mechanisms and ensuing vicious circles. Neurobiology of Disease, 2015, 82, 593-606.	2.1	219
56	Impact of aging on spreading depolarizations induced by focal brain ischemia in rats. Neurobiology of Aging, 2014, 35, 2803-2811.	1.5	25
57	Spreading Depolarization in the Ischemic Brain: Does Aging Have an Impact?. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2014, 69, 1363-1370.	1.7	17
58	Ischemia-induced depolarizations and associated hemodynamic responses in incomplete global forebrain ischemia in rats. Neuroscience, 2014, 260, 217-226.	1.1	38
59	Imaging Reveals the Focal Area of Spreading Depolarizations and a Variety of Hemodynamic Responses in a Rat Microembolic Stroke Model. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1695-1705.	2.4	54
60	Effects of early aging and cerebral hypoperfusion on spreading depression in rats. Neurobiology of Aging, 2011, 32, 1707-1715.	1.5	29
61	Hydrogen supplemented air inhalation reduces changes of prooxidant enzyme and gap junction protein levels after transient global cerebral ischemia in the rat hippocampus. Brain Research, 2011, 1404, 31-38.	1.1	27
62	Changes in pro-oxidant and antioxidant enzyme levels during cerebral hypoperfusion in rats. Brain Research, 2010, 1321, 13-19.	1.1	30
63	Multi-modal imaging of anoxic depolarization and hemodynamic changes induced by cardiac arrest in the rat cerebral cortex. NeuroImage, 2010, 51, 734-742.	2.1	53
64	Resveratrol preserves cerebrovascular density and cognitive function in aging mice. Frontiers in Aging Neuroscience, 2009, 1, 4.	1.7	101
65	Capillary injury in the ischemic brain of hyperlipidemic, apolipoprotein B-100 transgenic mice. Life Sciences, 2009, 84, 935-939.	2.0	16
66	Simultaneous, live imaging of cortical spreading depression and associated cerebral blood flow changes, by combining voltage-sensitive dye and laser speckle contrast methods. NeuroImage, 2009, 45, 68-74.	2.1	44
67	Direct, Live Imaging of Cortical Spreading Depression and Anoxic Depolarisation Using a Fluorescent, Voltage-Sensitive Dye. Journal of Cerebral Blood Flow and Metabolism, 2008, 28, 251-262.	2.4	60
68	Permanent, bilateral common carotid artery occlusion in the rat: A model for chronic cerebral hypoperfusion-related neurodegenerative diseases. Brain Research Reviews, 2007, 54, 162-180.	9.1	606
69	Pre-treatment and post-treatment with Î±-tocopherol attenuates hippocampal neuronal damage in experimental cerebral hypoperfusion. European Journal of Pharmacology, 2007, 571, 120-128.	1.7	43
70	Effects of cyclooxygenase (COX) inhibition on memory impairment and hippocampal damage in the early period of cerebral hypoperfusion in rats. European Journal of Pharmacology, 2007, 574, 29-38.	1.7	38
71	Tumor necrosis factor-alpha increases cerebral blood flow and ultrastructural capillary damage through the release of nitric oxide in the rat brain. Microvascular Research, 2006, 72, 113-119.	1.1	25
72	Neuroprotection by Diazoxide in Animal Models for Cerebrovascular Disorders. Vascular Disease Prevention, 2006, 3, 253-263.	0.2	6

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73	Age-related microvascular degeneration in the human cerebral periventricular white matter. Acta Neuropathologica, 2006, 111, 150-157.	3.9	88
74	The effect of pre- and posttreatment with diazoxide on the early phase of chronic cerebral hypoperfusion in the rat. Brain Research, 2006, 1087, 168-174.	1.1	44
75	Diazoxide preserves hypercapnia-induced arteriolar vasodilation after global cerebral ischemia in piglets. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 289, H368-H373.	1.5	23
76	Diazoxide and dimethyl sulphoxide alleviate experimental cerebral hypoperfusion-induced white matter injury in the rat brain. Neuroscience Letters, 2005, 373, 195-199.	1.0	24
77	Post-ischemic administration of diazoxide attenuates long-term microglial activation in the rat brain after permanent carotid artery occlusion. Neuroscience Letters, 2005, 387, 168-172.	1.0	28
78	Diazoxide and dimethyl sulphoxide prevent cerebral hypoperfusion-related learning dysfunction and brain damage after carotid artery occlusion. Brain Research, 2004, 1008, 252-260.	1.1	86
79	Experimental cerebral hypoperfusion induces white matter injury and microglial activation in the rat brain. Acta Neuropathologica, 2004, 108, 57-64.	3.9	160
80	Ageing-related decline in adenosine A1 receptor binding in the rat brain: An autoradiographic study. Journal of Neuroscience Research, 2004, 78, 742-748.	1.3	39
81	Dietary fatty acids alter blood pressure, behavior and brain membrane composition of hypertensive rats. Brain Research, 2003, 988, 9-19.	1.1	33
82	Beta-amyloid peptide-induced blood-brain barrier disruption facilitates T-cell entry into the rat brain. Acta Histochemica, 2003, 105, 115-125.	0.9	45
83	The effect of n-3 polyunsaturated fatty acid-rich diets on cognitive and cerebrovascular parameters in chronic cerebral hypoperfusion. Brain Research, 2002, 947, 166-173.	1.1	67
84	Dietary long chain PUFAs differentially affect hippocampal muscarinic 1 and serotonergic 1A receptors in experimental cerebral hypoperfusion. Brain Research, 2002, 954, 32-41.	1.1	53
85	Systemic Effects of Dietary nâ€3 PUFA Supplementation Accompany Changes of CNS Parameters in Cerebral Hypoperfusion. Annals of the New York Academy of Sciences, 2002, 977, 77-86.	1.8	17
86	Chronic cerebral hypoperfusion-related neuropathologic changes and compromised cognitive status: Window of treatment. Drugs of Today, 2002, 38, 365.	2.4	34
87	Calcium antagonists decrease capillary wall damage in aging hypertensive rat brain. Neurobiology of Aging, 2001, 22, 299-309.	1.5	37
88	Cerebral microvascular pathology in aging and Alzheimer's disease. Progress in Neurobiology, 2001, 64, 575-611.	2.8	968
89	Similar Ultrastructural Breakdown of Cerebrocortical Capillaries in Alzheimer's Disease, Parkinson's Disease, and Experimental Hypertension: What is the Functional Link?. Annals of the New York Academy of Sciences, 2000, 903, 72-82.	1.8	59
90	Are Alzheimerâ€™s disease, hypertension, and cerebrocapillary damage related?â˜†. Neurobiology of Aging, 2000, 21, 235-243.	1.5	45

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91	Local connections between the columns of the periaqueductal gray matter: a case for intrinsic neuromodulation. Brain Research, 1998, 784, 329-336.	1.1	72
92	Periaqueductal gray matter input to cardiac-related sympathetic premotor neurons. Brain Research, 1998, 792, 179-192.	1.1	113
93	Periaqueductal gray matter projection to vagal preganglionic neurons and the nucleus tractus solitarius. Brain Research, 1997, 764, 257-261.	1.1	68
94	An experimental investigation of the biopolymer organization of both recent and fossil sporoderms. Grana, 1993, 32, 40-48.	0.4	6