

Mark P Mattson

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

192
papers

27,732
citations

86
h-index

166
g-index

200
ext. papers

31,974
ext. citations

10.5
avg, IF

7.76
L-index

#	Paper	IF	Citations
192	Pathways towards and away from Alzheimer's disease. <i>Nature</i> , 2004 , 430, 631-9	50.4	2342
191	Apoptosis in neurodegenerative disorders. <i>Nature Reviews Molecular Cell Biology</i> , 2000 , 1, 120-9	48.7	1203
190	Evidence for excitoprotective and intraneuronal calcium-regulating roles for secreted forms of the beta-amyloid precursor protein. <i>Neuron</i> , 1993 , 10, 243-54	13.9	723
189	Fasting: molecular mechanisms and clinical applications. <i>Cell Metabolism</i> , 2014 , 19, 181-92	24.6	671
188	Estrogens attenuate and corticosterone exacerbates excitotoxicity, oxidative injury, and amyloid beta-peptide toxicity in hippocampal neurons. <i>Journal of Neurochemistry</i> , 1996 , 66, 1836-44	6	662
187	Folate and homocysteine metabolism in neural plasticity and neurodegenerative disorders. <i>Trends in Neurosciences</i> , 2003 , 26, 137-46	13.3	641
186	Molecular functionalization of carbon nanotubes and use as substrates for neuronal growth. <i>Journal of Molecular Neuroscience</i> , 2000 , 14, 175-82	3.3	550
185	Mitophagy inhibits amyloid- β and tau pathology and reverses cognitive deficits in models of Alzheimer's disease. <i>Nature Neuroscience</i> , 2019 , 22, 401-412	25.5	546
184	Activation of NF-kappaB protects hippocampal neurons against oxidative stress-induced apoptosis: evidence for induction of manganese superoxide dismutase and suppression of peroxynitrite production and protein tyrosine nitration. <i>Journal of Neuroscience Research</i> , 1997 , 49, 681-97	4.4	466
183	Impact of intermittent fasting on health and disease processes. <i>Ageing Research Reviews</i> , 2017 , 39, 46-58	58.2	425
182	Increased vulnerability of hippocampal neurons to excitotoxic necrosis in presenilin-1 mutant knock-in mice. <i>Nature Medicine</i> , 1999 , 5, 101-6	50.5	422
181	GLP-1 receptor stimulation preserves primary cortical and dopaminergic neurons in cellular and rodent models of stroke and Parkinsonism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 1285-90	11.5	414
180	Effects of Intermittent Fasting on Health, Aging, and Disease. <i>New England Journal of Medicine</i> , 2019 , 381, 2541-2551	59.2	410
179	Evidence for the involvement of TNF and NF-kappaB in hippocampal synaptic plasticity. <i>Synapse</i> , 2000 , 35, 151-9	2.4	399
178	An overview of APP processing enzymes and products. <i>NeuroMolecular Medicine</i> , 2010 , 12, 1-12	4.6	386
177	Roles of nuclear factor kappaB in neuronal survival and plasticity. <i>Journal of Neurochemistry</i> , 2000 , 74, 443-56	6	377
176	Dietary restriction and 2-deoxyglucose administration improve behavioral outcome and reduce degeneration of dopaminergic neurons in models of Parkinson's disease. <i>Journal of Neuroscience Research</i> , 1999 , 57, 195-206	4.4	362

175	Neuronal and glial calcium signaling in Alzheimer's disease. <i>Cell Calcium</i> , 2003 , 34, 385-97	4	354
174	Food restriction reduces brain damage and improves behavioral outcome following excitotoxic and metabolic insults. <i>Annals of Neurology</i> , 1999 , 45, 8-15	9.4	345
173	Hallmarks of Brain Aging: Adaptive and Pathological Modification by Metabolic States. <i>Cell Metabolism</i> , 2018 , 27, 1176-1199	24.6	344
172	Impairment of glucose and glutamate transport and induction of mitochondrial oxidative stress and dysfunction in synaptosomes by amyloid beta-peptide: role of the lipid peroxidation product 4-hydroxynonenal. <i>Journal of Neurochemistry</i> , 1997 , 69, 273-84	6	341
171	Mitophagy and Alzheimer's Disease: Cellular and Molecular Mechanisms. <i>Trends in Neurosciences</i> , 2017 , 40, 151-166	13.3	330
170	Senolytic therapy alleviates A β -associated oligodendrocyte progenitor cell senescence and cognitive deficits in an Alzheimer's disease model. <i>Nature Neuroscience</i> , 2019 , 22, 719-728	25.5	315
169	Microglial activation resulting from CD40-CD40L interaction after beta-amyloid stimulation. <i>Science</i> , 1999 , 286, 2352-5	33.3	310
168	Caspase and calpain substrates: Roles in synaptic plasticity and cell death. <i>Journal of Neuroscience Research</i> , 1999 , 58, 167-190	4.4	305
167	Activation of K ⁺ channels and suppression of neuronal activity by secreted beta-amyloid-precursor protein. <i>Nature</i> , 1996 , 379, 74-8	50.4	303
166	Calcium and reactive oxygen species mediate staurosporine-induced mitochondrial dysfunction and apoptosis in PC12 cells. <i>Journal of Neuroscience Research</i> , 1998 , 51, 293-308	4.4	300
165	Meal frequency and timing in health and disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 16647-53	11.5	294
164	BDNF mediates adaptive brain and body responses to energetic challenges. <i>Trends in Endocrinology and Metabolism</i> , 2014 , 25, 89-98	8.8	293
163	Increased activity-regulating and neuroprotective efficacy of alpha-secretase-derived secreted amyloid precursor protein conferred by a C-terminal heparin-binding domain. <i>Journal of Neurochemistry</i> , 1996 , 67, 1882-96	6	285
162	Energy intake and exercise as determinants of brain health and vulnerability to injury and disease. <i>Cell Metabolism</i> , 2012 , 16, 706-22	24.6	283
161	Dietary restriction increases the number of newly generated neural cells, and induces BDNF expression, in the dentate gyrus of rats. <i>Journal of Molecular Neuroscience</i> , 2000 , 15, 99-108	3.3	283
160	Brain metabolism in health, aging, and neurodegeneration. <i>EMBO Journal</i> , 2017 , 36, 1474-1492	13	273
159	NAD Replenishment Improves Lifespan and Healthspan in Ataxia Telangiectasia Models via Mitophagy and DNA Repair. <i>Cell Metabolism</i> , 2016 , 24, 566-581	24.6	273
158	Pivotal role of mitochondrial calcium uptake in neural cell apoptosis and necrosis. <i>Journal of Neurochemistry</i> , 1999 , 72, 529-40	6	260

157	Dietary restriction and 2-deoxyglucose administration reduce focal ischemic brain damage and improve behavioral outcome: Evidence for a preconditioning mechanism. <i>Journal of Neuroscience Research</i> , 1999 , 57, 830-839	4.4	255
156	Uric acid protects neurons against excitotoxic and metabolic insults in cell culture, and against focal ischemic brain injury in vivo. <i>Journal of Neuroscience Research</i> , 1998 , 53, 613-25	4.4	245
155	A high-fat diet and NAD(+) activate Sirt1 to rescue premature aging in cockayne syndrome. <i>Cell Metabolism</i> , 2014 , 20, 840-855	24.6	232
154	Nuclear DNA damage signalling to mitochondria in ageing. <i>Nature Reviews Molecular Cell Biology</i> , 2016 , 17, 308-21	48.7	222
153	Ischemic and excitotoxic brain injury is enhanced in mice lacking the p55 tumor necrosis factor receptor. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 1998 , 18, 1283-7	7.3	221
152	NAD in Aging: Molecular Mechanisms and Translational Implications. <i>Trends in Molecular Medicine</i> , 2017 , 23, 899-916	11.5	217
151	The lipid peroxidation product, 4-hydroxy-2-trans-nonenal, alters the conformation of cortical synaptosomal membrane proteins. <i>Journal of Neurochemistry</i> , 1997 , 69, 1161-9	6	217
150	A ketone ester diet exhibits anxiolytic and cognition-sparing properties, and lessens amyloid and tau pathologies in a mouse model of Alzheimer's disease. <i>Neurobiology of Aging</i> , 2013 , 34, 1530-9	5.6	216
149	The transcription factor NF-kappaB mediates increases in calcium currents and decreases in NMDA- and AMPA/kainate-induced currents induced by tumor necrosis factor-alpha in hippocampal neurons. <i>Journal of Neurochemistry</i> , 1998 , 70, 1876-86	6	211
148	Meal size and frequency affect neuronal plasticity and vulnerability to disease: cellular and molecular mechanisms. <i>Journal of Neurochemistry</i> , 2003 , 84, 417-31	6	210
147	Mitochondrial SIRT3 Mediates Adaptive Responses of Neurons to Exercise and Metabolic and Excitatory Challenges. <i>Cell Metabolism</i> , 2016 , 23, 128-42	24.6	203
146	NAD supplementation normalizes key Alzheimer's features and DNA damage responses in a new AD mouse model with introduced DNA repair deficiency. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E1876-E1885	11.5	195
145	Intermittent metabolic switching, neuroplasticity and brain health. <i>Nature Reviews Neuroscience</i> , 2018 , 19, 63-80	13.5	192
144	Presence of 4-hydroxynonenal in cerebrospinal fluid of patients with sporadic amyotrophic lateral sclerosis. <i>Annals of Neurology</i> , 1998 , 44, 696-9	9.4	192
143	Presenilins, the endoplasmic reticulum, and neuronal apoptosis in Alzheimer's disease. <i>Journal of Neurochemistry</i> , 1998 , 70, 1-14	6	188
142	Secreted forms of beta-amyloid precursor protein protect against ischemic brain injury. <i>Journal of Neurochemistry</i> , 1994 , 63, 781-4	6	187
141	Ceramide protects hippocampal neurons against excitotoxic and oxidative insults, and amyloid beta-peptide toxicity. <i>Journal of Neurochemistry</i> , 1996 , 66, 869-72	6	187
140	Astrocytic gap junctional communication decreases neuronal vulnerability to oxidative stress-induced disruption of Ca ²⁺ homeostasis and cell death. <i>Journal of Neurochemistry</i> , 1998 , 70, 958-70	6	187

139	Energy intake, meal frequency, and health: a neurobiological perspective. <i>Annual Review of Nutrition</i> , 2005 , 25, 237-60	9.9	181
138	NAD in Brain Aging and Neurodegenerative Disorders. <i>Cell Metabolism</i> , 2019 , 30, 630-655	24.6	178
137	Brain energy rescue: an emerging therapeutic concept for neurodegenerative disorders of ageing. <i>Nature Reviews Drug Discovery</i> , 2020 , 19, 609-633	64.1	166
136	Brain-derived neurotrophic factor mediates an excitoprotective effect of dietary restriction in mice. <i>Journal of Neurochemistry</i> , 2001 , 76, 619-26	6	156
135	Leptin-mediated cell survival signaling in hippocampal neurons mediated by JAK STAT3 and mitochondrial stabilization. <i>Journal of Biological Chemistry</i> , 2008 , 283, 1754-1763	5.4	155
134	Secreted forms of beta-amyloid precursor protein modulate dendrite outgrowth and calcium responses to glutamate in cultured embryonic hippocampal neurons. <i>Journal of Neurobiology</i> , 1994 , 25, 439-50		145
133	2-Deoxy-D-glucose protects hippocampal neurons against excitotoxic and oxidative injury: evidence for the involvement of stress proteins. <i>Journal of Neuroscience Research</i> , 1999 , 57, 48-61	4.4	144
132	Adverse stress, hippocampal networks, and Alzheimer's disease. <i>NeuroMolecular Medicine</i> , 2010 , 12, 56-70	4.6	138
131	The lipid peroxidation product 4-hydroxy-2,3-nonenal increases AP-1-binding activity through caspase activation in neurons. <i>Journal of Neurochemistry</i> , 2000 , 74, 159-68	6	135
130	Metal-catalyzed disruption of membrane protein and lipid signaling in the pathogenesis of neurodegenerative disorders. <i>Annals of the New York Academy of Sciences</i> , 2004 , 1012, 37-50	6.5	134
129	Adaptive responses of neuronal mitochondria to bioenergetic challenges: Roles in neuroplasticity and disease resistance. <i>Free Radical Biology and Medicine</i> , 2017 , 102, 203-216	7.8	130
128	Amyloid beta-peptide and oxidative cellular injury in Alzheimer's disease. <i>Molecular Neurobiology</i> , 1996 , 12, 211-24	6.2	130
127	17Beta-estradiol attenuates oxidative impairment of synaptic Na ⁺ /K ⁺ -ATPase activity, glucose transport, and glutamate transport induced by amyloid beta-peptide and iron. <i>Journal of Neuroscience Research</i> , 1997 , 50, 522-30	4.4	126
126	4-hydroxynonenal, a lipid peroxidation product, impairs glutamate transport in cortical astrocytes. <i>Glia</i> , 1998 , 22, 149-60	9	122
125	Apoptotic biochemical cascades in synaptic compartments: Roles in adaptive plasticity and neurodegenerative disorders. <i>Journal of Neuroscience Research</i> , 1999 , 58, 152-166	4.4	120
124	4-Hydroxynonenal, an aldehydic product of lipid peroxidation, impairs signal transduction associated with muscarinic acetylcholine and metabotropic glutamate receptors: possible action on G alpha(q/11). <i>Journal of Neurochemistry</i> , 1997 , 69, 570-80	6	114
123	Differential regulation of telomerase activity and TERT expression during brain development in mice. <i>Journal of Neuroscience Research</i> , 2001 , 64, 252-60	4.4	114
122	Mitochondrial potassium channels and uncoupling proteins in synaptic plasticity and neuronal cell death. <i>Biochemical and Biophysical Research Communications</i> , 2003 , 304, 539-49	3.4	113

121	Altered Extracellular Vesicle Concentration, Cargo, and Function in Diabetes. <i>Diabetes</i> , 2018 , 67, 2377-2388	11.9	111
120	Chronic mild sleep restriction accentuates contextual memory impairments, and accumulations of cortical A β and pTau in a mouse model of Alzheimer's disease. <i>Brain Research</i> , 2013 , 1529, 200-8	3.7	111
119	Soluble amyloid precursor protein- β modulates β -secretase activity and amyloid- β generation. <i>Nature Communications</i> , 2012 , 3, 777	17.4	110
118	Folic acid and homocysteine in age-related disease. <i>Ageing Research Reviews</i> , 2002 , 1, 95-111	12	109
117	Role of cyclic GMP in the regulation of neuronal calcium and survival by secreted forms of beta-amyloid precursor. <i>Journal of Neurochemistry</i> , 1995 , 64, 2087-96	6	107
116	Adaptive cellular stress pathways as therapeutic targets of dietary phytochemicals: focus on the nervous system. <i>Pharmacological Reviews</i> , 2014 , 66, 815-68	22.5	105
115	Integrin signaling via the PI3-kinase-Akt pathway increases neuronal resistance to glutamate-induced apoptosis. <i>Journal of Neurochemistry</i> , 2001 , 76, 1485-96	6	103
114	Selective vulnerability of neurons in layer II of the entorhinal cortex during aging and Alzheimer's disease. <i>Neural Plasticity</i> , 2010 , 2010, 108190	3.3	102
113	Gene-diet interactions in brain aging and neurodegenerative disorders. <i>Annals of Internal Medicine</i> , 2003 , 139, 441-4	8	101
112	Telomere shortening in neurological disorders: an abundance of unanswered questions. <i>Trends in Neurosciences</i> , 2014 , 37, 256-63	13.3	100
111	Participation of prostate apoptosis response-4 in degeneration of dopaminergic neurons in models of Parkinson's disease. <i>Annals of Neurology</i> , 1999 , 46, 587-597	9.4	100
110	Exercise, energy intake, glucose homeostasis, and the brain. <i>Journal of Neuroscience</i> , 2014 , 34, 15139-496.6		99
109	A mechanism for the neuroprotective effect of apolipoprotein E: isoform-specific modification by the lipid peroxidation product 4-hydroxynonenal. <i>Journal of Neurochemistry</i> , 2000 , 74, 1426-33	6	99
108	Will caloric restriction and folate protect against AD and PD?. <i>Neurology</i> , 2003 , 60, 690-5	6.5	96
107	NAD augmentation restores mitophagy and limits accelerated aging in Werner syndrome. <i>Nature Communications</i> , 2019 , 10, 5284	17.4	89
106	Pro-apoptotic action of PAR-4 involves inhibition of NF-kappaB activity and suppression of BCL-2 expression. <i>Journal of Neuroscience Research</i> , 2000 , 61, 134-9	4.4	84
105	Gene expression atlas of the mouse central nervous system: impact and interactions of age, energy intake and gender. <i>Genome Biology</i> , 2007 , 8, R234	18.3	82
104	Basic fibroblast growth factor selectively increases AMPA-receptor subunit GluR1 protein level and differentially modulates Ca ²⁺ responses to AMPA and NMDA in hippocampal neurons. <i>Journal of Neurochemistry</i> , 1995 , 65, 2525-36	6	82

103	Tomatidine enhances lifespan and healthspan in <i>C. elegans</i> through mitophagy induction via the SKN-1/Nrf2 pathway. <i>Scientific Reports</i> , 2017 , 7, 46208	4.9	78
102	Lysophosphatidic acid induces necrosis and apoptosis in hippocampal neurons. <i>Journal of Neurochemistry</i> , 1998 , 70, 66-76	6	78
101	Mitochondrial Protein PGAM5 Regulates Mitophagic Protection against Cell Necroptosis. <i>PLoS ONE</i> , 2016 , 11, e0147792	3.7	78
100	Perturbed endoplasmic reticulum function, synaptic apoptosis and the pathogenesis of Alzheimer's disease. <i>Biochemical Society Symposia</i> , 2001 , 151-62		78
99	Exercise and BDNF reduce A β production by enhancing β secretase processing of APP. <i>Journal of Neurochemistry</i> , 2017 , 142, 286-296	6	77
98	The prostate apoptosis response-4 protein participates in motor neuron degeneration in amyotrophic lateral sclerosis. <i>FASEB Journal</i> , 2000 , 14, 913-24	0.9	76
97	Evidence for mitochondrial control of neuronal polarity. <i>Journal of Neuroscience Research</i> , 1999 , 56, 8-20	4.4	76
96	DNA polymerase β deficiency leads to neurodegeneration and exacerbates Alzheimer disease phenotypes. <i>Nucleic Acids Research</i> , 2015 , 43, 943-59	20.1	75
95	Extracellular Vesicle-Associated A β Mediates Trans-Neuronal Bioenergetic and Ca-Handling Deficits in Alzheimer's Disease Models. <i>Npj Aging and Mechanisms of Disease</i> , 2016 , 2,	5.5	69
94	The AAA+ ATPase Thorase regulates AMPA receptor-dependent synaptic plasticity and behavior. <i>Cell</i> , 2011 , 145, 284-99	56.2	67
93	3xTgAD mice exhibit altered behavior and elevated A β after chronic mild social stress. <i>Neurobiology of Aging</i> , 2012 , 33, 830.e1-12	5.6	66
92	Infectious agents and age-related neurodegenerative disorders. <i>Ageing Research Reviews</i> , 2004 , 3, 105-20	20	65
91	Sonic Hedgehog Signaling and Hippocampal Neuroplasticity. <i>Trends in Neurosciences</i> , 2016 , 39, 840-850	13.3	62
90	Presenilin mutations and calcium signaling defects in the nervous and immune systems. <i>BioEssays</i> , 2001 , 23, 733-44	4.1	59
89	Effects of a dietary ketone ester on hippocampal glycolytic and tricarboxylic acid cycle intermediates and amino acids in a 3xTgAD mouse model of Alzheimer's disease. <i>Journal of Neurochemistry</i> , 2017 , 141, 195-207	6	58
88	Inhibition of notch signalling ameliorates experimental inflammatory arthritis. <i>Annals of the Rheumatic Diseases</i> , 2015 , 74, 267-74	2.4	58
87	DNP, mitochondrial uncoupling, and neuroprotection: A little dab'll do ya. <i>Alzheimer's and Dementia</i> , 2017 , 13, 582-591	1.2	58
86	Emerging roles for telomerase in neuronal development and apoptosis. <i>Journal of Neuroscience Research</i> , 2001 , 63, 1-9	4.4	58

85	Cockayne syndrome group A and B proteins converge on transcription-linked resolution of non-B DNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 12502-12507	11.5	56
84	Superior pattern processing is the essence of the evolved human brain. <i>Frontiers in Neuroscience</i> , 2014 , 8, 265	5.1	56
83	Presenilin-1 mutation alters NGF-induced neurite outgrowth, calcium homeostasis, and transcription factor (AP-1) activation in PC12 cells. <i>Journal of Neuroscience Research</i> , 1998 , 52, 618-24	4.4	55
82	Par-4: an emerging pivotal player in neuronal apoptosis and neurodegenerative disorders. <i>Journal of Molecular Neuroscience</i> , 1999 , 13, 17-30	3.3	55
81	Lysophosphatidic acid-induced proliferation-related signals in astrocytes. <i>Journal of Neurochemistry</i> , 1997 , 69, 1073-84	6	54
80	Sphingolipid metabolism regulates development and lifespan in <i>Caenorhabditis elegans</i> . <i>Mechanisms of Ageing and Development</i> , 2014 , 143-144, 9-18	5.6	53
79	Superoxide mediates the cell-death-enhancing action of presenilin-1 mutations. <i>Journal of Neuroscience Research</i> , 1999 , 56, 457-70	4.4	53
78	Evidence that collaboration between HIF-1 and Notch-1 promotes neuronal cell death in ischemic stroke. <i>Neurobiology of Disease</i> , 2014 , 62, 286-95	7.5	52
77	Apolipoprotein E and oxidative stress in brain with relevance to Alzheimer's disease. <i>Neurobiology of Disease</i> , 2020 , 138, 104795	7.5	51
76	Effect of intermittent vs. daily calorie restriction on changes in weight and patient-reported outcomes in people with multiple sclerosis. <i>Multiple Sclerosis and Related Disorders</i> , 2018 , 23, 33-39	4	51
75	Programmed cell life: anti-apoptotic signaling and therapeutic strategies for neurodegenerative disorders. <i>Restorative Neurology and Neuroscience</i> , 1996 , 9, 191-205	2.8	51
74	Permeability transition pore-mediated mitochondrial superoxide flashes mediate an early inhibitory effect of amyloid beta1-42 on neural progenitor cell proliferation. <i>Neurobiology of Aging</i> , 2014 , 35, 975-89	5.6	49
73	Establishment and plasticity of neuronal polarity. <i>Journal of Neuroscience Research</i> , 1999 , 57, 577-589	4.4	46
72	Deuterated polyunsaturated fatty acids reduce brain lipid peroxidation and hippocampal amyloid β -peptide levels, without discernable behavioral effects in an APP/PS1 mutant transgenic mouse model of Alzheimer's disease. <i>Neurobiology of Aging</i> , 2018 , 66, 165-176	5.6	45
71	Intercellular transfer of pathogenic β -synuclein by extracellular vesicles is induced by the lipid peroxidation product 4-hydroxynonenal. <i>Neurobiology of Aging</i> , 2018 , 61, 52-65	5.6	42
70	Cytochalasins protect hippocampal neurons against amyloid beta-peptide toxicity: evidence that actin depolymerization suppresses Ca ²⁺ influx. <i>Journal of Neurochemistry</i> , 1995 , 65, 1061-8	6	42
69	Notch signaling and neuronal death in stroke. <i>Progress in Neurobiology</i> , 2018 , 165-167, 103-116	10.9	41
68	Interventions that improve body and brain bioenergetics for Parkinson's disease risk reduction and therapy. <i>Journal of Parkinson's Disease</i> , 2014 , 4, 1-13	5.3	41

67	Cell and molecular neurobiology of presenilins: a role for the endoplasmic reticulum in the pathogenesis of Alzheimer's disease?. <i>Journal of Neuroscience Research</i> , 1997 , 50, 505-13	4.4	38
66	Lysophosphatidic acid decreases glutamate and glucose uptake by astrocytes. <i>Journal of Neurochemistry</i> , 1996 , 67, 2300-5	6	38
65	An Evolutionary Perspective on Why Food Overconsumption Impairs Cognition. <i>Trends in Cognitive Sciences</i> , 2019 , 23, 200-212	14	36
64	Selective and biphasic effect of the membrane lipid peroxidation product 4-hydroxy-2,3-nonenal on N-methyl-D-aspartate channels. <i>Journal of Neurochemistry</i> , 2001 , 78, 577-89	6	36
63	Combination therapy with lenalidomide and nanoceria ameliorates CNS autoimmunity. <i>Experimental Neurology</i> , 2015 , 273, 151-60	5.7	35
62	Lysophosphatidic acid and apoptosis of nerve growth factor-differentiated PC12 cells. <i>Journal of Neuroscience Research</i> , 1998 , 53, 685-96	4.4	34
61	Isoform-specific modulation by apolipoprotein E of the activities of secreted beta-amyloid precursor protein. <i>Journal of Neurochemistry</i> , 1997 , 69, 60-7	6	34
60	Elongation factor 2 diphthamide is critical for translation of two IRES-dependent protein targets, XIAP and FGF2, under oxidative stress conditions. <i>Free Radical Biology and Medicine</i> , 2014 , 67, 131-8	7.8	33
59	Roles for calcium signaling in structural plasticity and pathology in the hippocampal system. <i>Hippocampus</i> , 1993 , 3, 73-87	3.5	33
58	Staurosporine, K-252a, and K-252b stabilize calcium homeostasis and promote survival of CNS neurons in the absence of glucose. <i>Journal of Neurochemistry</i> , 1994 , 62, 1319-29	6	32
57	Iodoacetate protects hippocampal neurons against excitotoxic and oxidative injury: involvement of heat-shock proteins and Bcl-2. <i>Journal of Neurochemistry</i> , 2001 , 79, 361-70	6	31
56	Toll-like receptors 2 and 4 modulate autonomic control of heart rate and energy metabolism. <i>Brain, Behavior, and Immunity</i> , 2014 , 36, 90-100	16.6	29
55	Lysophosphatidic acid induction of neuronal apoptosis and necrosis. <i>Annals of the New York Academy of Sciences</i> , 2000 , 905, 132-41	6.5	29
54	Medium Chain Triglycerides induce mild ketosis and may improve cognition in Alzheimer's disease. A systematic review and meta-analysis of human studies. <i>Ageing Research Reviews</i> , 2020 , 58, 101001	12	28
53	Novel RNA- and FMRP-binding protein TRF2-S regulates axonal mRNA transport and presynaptic plasticity. <i>Nature Communications</i> , 2015 , 6, 8888	17.4	27
52	Lysophosphatidic acid induces a sustained elevation of neuronal intracellular calcium. <i>Journal of Neurochemistry</i> , 1997 , 69, 68-75	6	27
51	Contributions of mitochondrial alterations, resulting from bad genes and a hostile environment, to the pathogenesis of Alzheimer's disease. <i>International Review of Neurobiology</i> , 2002 , 53, 387-409	4.4	27
50	SIRT3 Haploinsufficiency Aggravates Loss of GABAergic Interneurons and Neuronal Network Hyperexcitability in an Alzheimer's Disease Model. <i>Journal of Neuroscience</i> , 2020 , 40, 694-709	6.6	27

49	Intermittent and periodic fasting, longevity and disease.. <i>Nature Aging</i> , 2021 , 1, 47-59		24
48	Excitation BolsTORs motor neurons in ALS mice. <i>Neuron</i> , 2013 , 80, 1-3	13.9	22
47	Caspase and calpain substrates: Roles in synaptic plasticity and cell death 1999 , 58, 167		21
46	Astrocyte- and Neuron-Derived Extracellular Vesicles from Alzheimer's Disease Patients Effect Complement-Mediated Neurotoxicity. <i>Cells</i> , 2020 , 9,	7.9	20
45	A Novel Apolipoprotein E Antagonist Functionally Blocks Apolipoprotein E Interaction With N-terminal Amyloid Precursor Protein, Reduces β Amyloid-Associated Pathology, and Improves Cognition. <i>Biological Psychiatry</i> , 2019 , 86, 208-220	7.9	19
44	NAD supplementation prevents STING-induced senescence in ataxia telangiectasia by improving mitophagy. <i>Aging Cell</i> , 2021 , 20, e13329	9.9	18
43	Mitochondrial DNA in extracellular vesicles declines with age. <i>Aging Cell</i> , 2021 , 20, e13283	9.9	18
42	Brain regional synchronous activity predicts tauopathy in β gAD mice. <i>Neurobiology of Aging</i> , 2018 , 70, 160-169	5.6	18
41	The astrocytic transporter SLC7A10 (Asc-1) mediates glycinergic inhibition of spinal cord motor neurons. <i>Scientific Reports</i> , 2016 , 6, 35592	4.9	17
40	Hormesis: A potential strategic approach to the treatment of neurodegenerative disease. <i>International Review of Neurobiology</i> , 2020 , 155, 271-301	4.4	17
39	Uric acid enhances longevity and endurance and protects the brain against ischemia. <i>Neurobiology of Aging</i> , 2019 , 75, 159-168	5.6	17
38	NAD supplementation reduces neuroinflammation and cell senescence in a transgenic mouse model of Alzheimer's disease via cGAS-STING. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	17
37	Molecular control of the amount, subcellular location, and activity state of translation elongation factor 2 in neurons experiencing stress. <i>Free Radical Biology and Medicine</i> , 2013 , 61, 61-71	7.8	16
36	Biological sex and DNA repair deficiency drive Alzheimer's disease via systemic metabolic remodeling and brain mitochondrial dysfunction. <i>Acta Neuropathologica</i> , 2020 , 140, 25-47	14.3	15
35	TLR4-dependent metabolic changes are associated with cognitive impairment in an animal model of type 1 diabetes. <i>Biochemical and Biophysical Research Communications</i> , 2014 , 443, 731-7	3.4	15
34	Intergenerational Metabolic Syndrome and Neuronal Network Hyperexcitability in Autism. <i>Trends in Neurosciences</i> , 2019 , 42, 709-726	13.3	12
33	Postnatal TLR2 activation impairs learning and memory in adulthood. <i>Brain, Behavior, and Immunity</i> , 2015 , 48, 301-12	16.6	12
32	Amyloid β peptide alters thrombin-induced calcium responses in cultured human neural cells. <i>Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis</i> , 1996 , 3, 28-40	2.7	11

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