Milos Pekny

List of Publications by Year
in descending order

116 papers	15,678 citations	31902 53 h-index	23472 111 g-index
117 all docs	117 docs citations	117 times ranked	16317 citing authors

#	Article	IF	Citations
1	Astrocyte activation and reactive gliosis. Glia, 2005, 50, 427-434.	2.5	1,384
2	Reactive astrocyte nomenclature, definitions, and future directions. Nature Neuroscience, 2021, 24, 312-325.	7.1	1,098
3	PDGF-A Signaling Is a Critical Event in Lung Alveolar Myofibroblast Development and Alveogenesis. Cell, 1996, 85, 863-873.	13.5	787
4	Astrocyte Reactivity and Reactive Astrogliosis: Costs and Benefits. Physiological Reviews, 2014, 94, 1077-1098.	13.1	701
5	Glial fibrillary acidic protein (GFAP) and the astrocyte intermediate filament system in diseases of the central nervous system. Current Opinion in Cell Biology, 2015, 32, 121-130.	2.6	602
6	Astrocytes: a central element in neurological diseases. Acta Neuropathologica, 2016, 131, 323-345.	3.9	597
7	The dual role of astrocyte activation and reactive gliosis. Neuroscience Letters, 2014, 565, 30-38.	1.0	555
8	Redefining the concept of reactive astrocytes as cells that remain within their unique domains upon reaction to injury. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17513-17518.	3.3	499
9	Glial cells in (patho)physiology. Journal of Neurochemistry, 2012, 121, 4-27.	2.1	460
10	Protective Role of Reactive Astrocytes in Brain Ischemia. Journal of Cerebral Blood Flow and Metabolism, 2008, 28, 468-481.	2.4	441
11	Absence of Glial Fibrillary Acidic Protein and Vimentin Prevents Hypertrophy of Astrocytic Processes and Improves Post-Traumatic Regeneration. Journal of Neuroscience, 2004, 24, 5016-5021.	1.7	393
12	Abnormal Reaction to Central Nervous System Injury in Mice Lacking Glial Fibrillary Acidic Protein and Vimentin. Journal of Cell Biology, 1999, 145, 503-514.	2.3	360
13	Astrocyte intermediate filaments in CNS pathologies and regeneration. Journal of Pathology, 2004, 204, 428-437.	2.1	352
14	Intermediate Filament Protein Partnership in Astrocytes. Journal of Biological Chemistry, 1999, 274, 23996-24006.	1.6	313
15	Class VI intermediate filament protein nestin is induced during activation of rat hepatic stellate cells. Hepatology, 1999, 29, 520-527.	3.6	263
16	Attenuating astrocyte activation accelerates plaque pathogenesis in APP/PS1 mice. FASEB Journal, 2013, 27, 187-198.	0.2	254
17	Complement: a novel factor in basal and ischemia-induced neurogenesis. EMBO Journal, 2006, 25, 1364-1374.	3.5	242
18	Robust neural integration from retinal transplants in mice deficient in GFAP and vimentin. Nature Neuroscience, 2003, 6, 863-868.	7.1	220

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19	Modulation of Neural Plasticity as a Basis for Stroke Rehabilitation. Stroke, 2012, 43, 2819-2828.	1.0	220
20	Reactive gliosis in the pathogenesis of CNS diseases. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2016, 1862, 483-491.	1.8	194
21	Mice lacking the adenosine A1receptor are anxious and aggressive, but are normal learners with reduced muscle strength and survival rate. European Journal of Neuroscience, 2002, 16, 547-550.	1.2	169
22	Beneficial effects of gfap/vimentin reactive astrocytes for axonal remodeling and motor behavioral recovery in mice after stroke. Glia, 2014, 62, 2022-2033.	2.5	163
23	Intermediate filaments and stress. Experimental Cell Research, 2007, 313, 2244-2254.	1.2	157
24	Vascular Endothelial Growth Factor-Bâ€"Deficient Mice Display an Atrial Conduction Defect. Circulation, 2001, 104, 358-364.	1.6	150
25	Astrocyte activation and reactive gliosisâ€"A new target in stroke?. Neuroscience Letters, 2019, 689, 45-55.	1.0	150
26	Increased Insulin Secretion and Glucose Tolerance in Mice Lacking Islet Amyloid Polypeptide (Amylin). Biochemical and Biophysical Research Communications, 1998, 250, 271-277.	1.0	149
27	Attenuated Glial Reactions and Photoreceptor Degeneration after Retinal Detachment in Mice Deficient in Glial Fibrillary Acidic Protein and Vimentin. , 2007, 48, 2760.		149
28	The Role of Astrocytes and Complement System in Neural Plasticity. International Review of Neurobiology, 2007, 82, 95-111.	0.9	148
29	Reactive glial cells: increased stiffness correlates with increased intermediate filament expression. FASEB Journal, 2011, 25, 624-631.	0.2	148
30	Cytoskeleton and Vesicle Mobility in Astrocytes. Traffic, 2007, 8, 12-20.	1.3	147
31	Re-establishing the regenerative potential of central nervous system axons in postnatal mice. Journal of Cell Science, 2005, 118, 863-872.	1.2	144
32	Intermediate filaments regulate astrocyte motility. Journal of Neurochemistry, 2008, 79, 617-625.	2.1	142
33	Complement-Derived Anaphylatoxin C3a Regulates In Vitro Differentiation and Migration of Neural Progenitor Cells. Stem Cells, 2009, 27, 2824-2832.	1.4	142
34	GFAP and vimentin deficiency alters gene expression in astrocytes and microglia in wildâ€type mice and changes the transcriptional response of reactive glia in mouse model for <scp>A</scp>lzheimer's disease. Glia, 2015, 63, 1036-1056.	2.5	134
35	Under stress, the absence of intermediate filaments from Mul̀ˆller cells in the retina has structural and functional consequences. Journal of Cell Science, 2004, 117, 3481-3488.	1.2	131
36	Glia in the pathogenesis of neurodegenerative diseases. Biochemical Society Transactions, 2014, 42, 1291-1301.	1.6	130

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37	Astrocytes Negatively Regulate Neurogenesis Through the Jagged1â€Mediated Notch Pathway. Stem Cells, 2012, 30, 2320-2329.	1.4	123
38	Targeting innate immunity for neurodegenerative disorders of the central nervous system. Journal of Neurochemistry, 2016, 138, 653-693.	2.1	106
39	Impaired induction of blood-brain barrier properties in aortic endothelial cells by astrocytes from GFAB-deficient mice. , 1998, 22, 390-400.		105
40	Abnormal Reactivity of MuÌˆller Cells after Retinal Detachment in Mice Deficient in GFAP and Vimentin. , 2008, 49, 3659.		104
41	Bioactive 3D cell culture system minimizes cellular stress and maintains the <i>in vivo</i>â€like morphological complexity of astroglial cells. Glia, 2013, 61, 432-440.	2.5	100
42	Increased Cell Proliferation and Neurogenesis in the Hippocampal Dentate Gyrus of Old GFAP?/?Vim?/? Mice. Neurochemical Research, 2004, 29, 2069-2073.	1.6	99
43	GFAP-Deficient Astrocytes Are Capable of Stellationin VitroWhen Cocultured with Neurons and Exhibit a Reduced Amount of Intermediate Filaments and an Increased Cell Saturation Density. Experimental Cell Research, 1998, 239, 332-343.	1.2	96
44	IFN-Î³-induced increase in the mobility of MHC class II compartments in astrocytes depends on intermediate filaments. Journal of Neuroinflammation, 2012, 9, 144.	3.1	95
45	The Role of Attenuated Astrocyte Activation in Infantile Neuronal Ceroid Lipofuscinosis. Journal of Neuroscience, 2011, 31, 15575-15585.	1.7	94
46	Increased Neurogenesis and Astrogenesis from Neural Progenitor Cells Grafted in the Hippocampus of <i>GFAP</i>âˆ’/âˆ’<i>Vim</i>âˆ’/âˆ’ Mice. Stem Cells, 2007, 25, 2619-2627.	1.4	93
47	Synemin is expressed in reactive astrocytes in neurotrauma and interacts differentially with vimentin and GFAP intermediate filament networks. Journal of Cell Science, 2007, 120, 1267-1277.	1.2	90
48	Defining cell populations with single-cell gene expression profiling: correlations and identification of astrocyte subpopulations. Nucleic Acids Research, 2011, 39, e24-e24.	6.5	90
49	Intermediate filaments are important for astrocyte response to oxidative stress induced by oxygenâ€"glucose deprivation and reperfusion. Histochemistry and Cell Biology, 2013, 140, 81-91.	0.8	90
50	Astrocytic intermediate filaments: lessons from GFAP and vimentin knock-out mice. Progress in Brain Research, 2001, 132, 23-30.	0.9	82
51	Intermediate filaments attenuate stimulationâ€dependent mobility of endosomes/lysosomes in astrocytes. Glia, 2010, 58, 1208-1219.	2.5	82
52	Versatile and Simple Approach to Determine Astrocyte Territories in Mouse Neocortex and Hippocampus. PLoS ONE, 2013, 8, e69143.	1.1	79
53	Roles of vimentin in health and disease. Genes and Development, 2022, 36, 391-407.	2.7	79
54	Altered taurine release following hypotonic stress in astrocytes from mice deficient for GFAP and vimentin. Molecular Brain Research, 1998, 62, 77-81.	2.5	78

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55	Long-Term Improvements After Multimodal Rehabilitation in Late Phase After Stroke. Stroke, 2017, 48, 1916-1924.	1.0	71
56	Effect of elevated K+, hypotonic stress, and cortical spreading depression on astrocyte swelling in GFAP-deficient mice. Glia, 2001, 35, 189-203.	2.5	61
57	Formation of normal desmin intermediate filaments in mouse hepatic stellate cells requires vimentin. Hepatology, 2001, 33, 177-188.	3.6	59
58	Attenuation of Reactive Gliosis Does Not Affect Infarct Volume in Neonatal Hypoxic-Ischemic Brain Injury in Mice. PLoS ONE, 2010, 5, e10397.	1.1	57
59	Loss of GFAP expression in high-grade astrocytomas does not contribute to tumor development or progression. Oncogene, 2003, 22, 3407-3411.	2.6	56
60	The challenge of regenerative therapies for the optic nerve in glaucoma. Experimental Eye Research, 2017, 157, 28-33.	1.2	52
61	Reduced removal of synaptic terminals from axotomized spinal motoneurons in the absence of complement C3. Experimental Neurology, 2012, 237, 8-17.	2.0	50
62	Direct Cell Lysis for Single-Cell Gene Expression Profiling. Frontiers in Oncology, 2013, 3, 274.	1.3	49
63	The impact of genetic removal of GFAP and/or vimentin on glutamine levels and transport of glucose and ascorbate in astrocytes. Neurochemical Research, 1999, 24, 1357-1362.	1.6	48
64	Receptor for complement peptide C3a: a therapeutic target for neonatal hypoxicâ€ischemic brain injury. FASEB Journal, 2013, 27, 3797-3804.	0.2	48
65	Bfsp2 mutation found in mouse 129 strains causes the loss of CP49â€™ and induces vimentin-dependent changes in the lens fibre cell cytoskeleton. Experimental Eye Research, 2004, 78, 875-889.	1.2	46
66	Nestin Regulates Neurogenesis in Mice Through Notch Signaling From Astrocytes to Neural Stem Cells. Cerebral Cortex, 2019, 29, 4050-4066.	1.6	46
67	Photothrombosis-Induced Infarction of the Mouse Cerebral Cortex Is Not Affected by the Nrf2-Activator Sulforaphane. PLoS ONE, 2012, 7, e41090.	1.1	46
68	Dynamics of mutated GFAP aggregates revealed by real-time imaging of an astrocyte model of Alexander disease. Experimental Cell Research, 2007, 313, 2766-2779.	1.2	43
69	Astrocytoma grade IV (glioblastoma multiforme) displays 3 subtypes with unique expression profiles of intermediate filament proteins. Human Pathology, 2013, 44, 2081-2088.	1.1	43
70	<scp>HB</scp>â€<scp>EGF</scp> affects astrocyte morphology, proliferation, differentiation, and the expression of intermediate filament proteins. Journal of Neurochemistry, 2014, 128, 878-889.	2.1	43
71	Vimentin deficiency in macrophages induces increased oxidative stress and vascular inflammation but attenuates atherosclerosis in mice. Scientific Reports, 2018, 8, 16973.	1.6	43
72	Inflammation in the hippocampus affects IGF1 receptor signaling and contributes to neurological sequelae in rheumatoid arthritis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E12063-E12072.	3.3	41

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73	The role of GFAP and vimentin in learning and memory. Biological Chemistry, 2019, 400, 1147-1156.	1.2	40
74	Enriched environment and astrocytes in central nervous system regeneration. Acta Dermato-Venereologica, 2007, 39, 345-352.	0.6	36
75	Neuron-Specific Ablation of PDGF-B Is Compatible with Normal Central Nervous System Development and Astroglial Response to Injury. Neurochemical Research, 2003, 28, 271-279.	1.6	34
76	Complement Peptide C3a Promotes Astrocyte Survival in Response to Ischemic Stress. Molecular Neurobiology, 2016, 53, 3076-3087.	1.9	34
77	Heterogeneity of Notch signaling in astrocytes and the effects of <scp>GFAP</scp> and vimentin deficiency. Journal of Neurochemistry, 2015, 135, 234-248.	2.1	33
78	Axonal Regeneration after Sciatic Nerve Lesion Is Delayed but Complete in GFAP- and Vimentin-Deficient Mice. PLoS ONE, 2013, 8, e79395.	1.1	33
79	A Novel Method for Three-Dimensional Culture of Central Nervous System Neurons. Tissue Engineering - Part C: Methods, 2014, 20, 485-492.	1.1	28
80	Signaling through C5aR is not involved in basal neurogenesis. Journal of Neuroscience Research, 2007, 85, 2892-2897.	1.3	27
81	The cysteine residue of glial fibrillary acidic protein is a critical target for lipoxidation and required for efficient network organization. Free Radical Biology and Medicine, 2018, 120, 380-394.	1.3	27
82	The Complement System: A Powerful Modulator and Effector of Astrocyte Function in the Healthy and Diseased Central Nervous System. Cells, 2021, 10, 1812.	1.8	27
83	Expression of plasminogen activator inhibitorâ€1 and protease nexinâ€1 in human astrocytes: Response to injuryâ€related factors. Journal of Neuroscience Research, 2010, 88, 2441-2449.	1.3	26
84	Plasticity Response in the Contralesional Hemisphere after Subtle Neurotrauma: Gene Expression Profiling after Partial Deafferentation of the Hippocampus. PLoS ONE, 2013, 8, e70699.	1.1	26
85	Short general anaesthesia induces prolonged changes in gene expression in the mouse hippocampus. Acta Anaesthesiologica Scandinavica, 2014, 58, 1127-1133.	0.7	26
86	Retinal functional alterations in mice lacking intermediate filament proteins glial fibrillary acidic protein and vimentin. FASEB Journal, 2015, 29, 4815-4828.	0.2	26
87	Injury Leads to the Appearance of Cells with Characteristics of Both Microglia and Astrocytes in Mouse and Human Brain. Cerebral Cortex, 2017, 27, 3360-3377.	1.6	26
88	The effects of a rhythm and music-based therapy program and therapeutic riding in late recovery phase following stroke: a study protocol for a three-armed randomized controlled trial. BMC Neurology, 2012, 12, 141.	0.8	24
89	Synemin is expressed in reactive astrocytes and Rosenthal fibers in Alexander disease. Apmis, 2014, 122, 76-80.	0.9	24
90	Increased Neuronal Differentiation of Neural Progenitor Cells Derived from Phosphovimentin-Deficient Mice. Molecular Neurobiology, 2018, 55, 5478-5489.	1.9	22

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91	Effects of horse-riding therapy and rhythm and music-based therapy on functional mobility in late phase after stroke. NeuroRehabilitation, 2019, 45, 483-492.	0.5	22
92	Unique gene expression patterns indicate microglial contribution to neural stem cell recovery following irradiation. Molecular and Cellular Neurosciences, 2011, 46, 710-719.	1.0	21
93	C3 deficiency ameliorates the negative effects of irradiation of the young brain on hippocampal development and learning. Oncotarget, 2016, 7, 19382-19394.	0.8	21
94	Hyperactive Behavior and Altered Brain Morphology in Adult Complement C3a Receptor Deficient Mice. Frontiers in Immunology, 2021, 12, 604812.	2.2	18
95	Neurofilament Light Chain (NfL) in Bloodâ€"A Biomarker Predicting Unfavourable Outcome in the Acute Phase and Improvement in the Late Phase after Stroke. Cells, 2021, 10, 1537.	1.8	18
96	Reactive astrocytes prevent maladaptive plasticity after ischemic stroke. Progress in Neurobiology, 2022, 209, 102199.	2.8	18
97	Response to Quinlan and Nilsson: Astroglia sitting at the controls?. Trends in Neurosciences, 2004, 27, 243-244.	4.2	16
98	Vimentin Phosphorylation Is Required for Normal Cell Division of Immature Astrocytes. Cells, 2019, 8, 1016.	1.8	15
99	Targeting Complement C3a Receptor to Improve Outcome After Ischemic Brain Injury. Neurochemical Research, 2021, 46, 2626-2637.	1.6	15
100	Vimentin is required for normal accumulation of body fat. Biological Chemistry, 2019, 400, 1157-1162.	1.2	13
101	Differences in Binding to the Solid Substratum and Extracellular Matrix may Explain Isoform-Specific Paracrine Effects of Platelet-Derived Growth Factor. Growth Factors, 1994, 10, 77-87.	0.5	12
102	Attenuation of reactive gliosis in stroke-injured mouse brain does not affect neurogenesis from grafted human iPSC-derived neural progenitors. PLoS ONE, 2018, 13, e0192118.	1.1	11
103	Nestin affects fusion pore dynamics in mouse astrocytes. Acta Physiologica, 2020, 228, e13399.	1.8	10
104	Plasma neurofilament light chain levels predict improvement in late phase after stroke. European Journal of Neurology, 2021, 28, 2218-2228.	1.7	10
105	14-3-3 Expression in Denervated Hippocampus after Entorhinal Cortex Lesion Assessed by Culture-Derived Isotope Tags in Quantitative Proteomics. Journal of Proteome Research, 2007, 6, 3491-3500.	1.8	9
106	C3a Receptor Signaling Inhibits Neurodegeneration Induced by Neonatal Hypoxic-Ischemic Brain Injury. Frontiers in Immunology, 2021, 12, 768198.	2.2	8
107	Stress Models for the Study of Intermediate Filament Function. Methods in Cell Biology, 2004, 78, 229-264.	0.5	7
108	Classification of Subpopulations of Cells Within Human Primary Brain Tumors by Single Cell Gene Expression Profiling. Neurochemical Research, 2015, 40, 336-352.	1.6	6

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109	Nestin Null Mice Show Improved Reversal Place Learning. Neurochemical Research, 2020, 45, 215-220.	1.6	6
110	Neural Progenitor Cells in Cerebral Cortex of Epilepsy Patients do not Originate from Astrocytes Expressing GLAST. Cerebral Cortex, 2016, 27, 5672-5682.	1.6	5
111	Drugs targeting intermediate filaments can improve neurosupportive properties of astrocytes. Brain Research Bulletin, 2018, 136, 130-138.	1.4	5
112	Motor Function in the Late Phase After Stroke: Stroke Survivorsâ€™ Perspective. Annals of Rehabilitation Medicine, 2020, 44, 362-369.	0.6	5
113	Diet-induced weight loss in obese/diabetic mice normalizes glucose metabolism and promotes functional recovery after stroke. Cardiovascular Diabetology, 2021, 20, 240.	2.7	5
114	Reactive Astrocytes, Astrocyte Intermediate Filament Proteins, and Their Role in the Disease Pathogenesis. Neuromethods, 2013, , 299-319.	0.2	4
115	Impaired induction of blood-brain barrier properties in aortic endothelial cells by astrocytes from GFAB-deficient mice. , 1998, 22, 390.		1
116	Consequences of eliminating adenosine A1receptors in mice. Drug Development Research, 2003, 58, 350-353.	1.4	0