Stephen A Back

List of Publications by Year
in descending order

90 papers	10,540 citations	31976 53 h-index	54911 84 g-index
90 all docs	90 docs citations	90 times ranked	7841 citing authors

#	Article	IF	Citations
1	The Vannucci Model of Hypoxic-Ischemic Injury in the Neonatal Rodent: 40 years Later. Developmental Neuroscience, 2022, 44, 186-193.	2.0	13
2	Association of cerebral microvascular dysfunction and white matter injury in Alzheimerâ€™s disease. GeroScience, 2022, 44, 1-14.	4.6	13
3	Dysregulation of Hyaluronan Homeostasis During White Matter Injury. Neurochemical Research, 2020, 45, 672-683.	3.3	15
4	A modified flavonoid accelerates oligodendrocyte maturation and functional remyelination. Glia, 2020, 68, 263-279.	4.9	10
5	Transient Hypoxemia Disrupts Anatomical and Functional Maturation of Preterm Fetal Ovine CA1 Pyramidal Neurons. Journal of Neuroscience, 2019, 39, 7853-7871.	3.6	17
6	Cortical Dysmaturation in Congenital Heart Disease. Trends in Neurosciences, 2019, 42, 192-204.	8.6	28
7	Vasodilator dysfunction and oligodendrocyte dysmaturation in aging white matter. Annals of Neurology, 2018, 83, 142-152.	5.3	25
8	Encephalopathy of Prematurity. , 2018, , 405-424.e8.		8
9	Brain Injury in the Preterm Infant. , 2018, , 879-896.e6.		2
10	A TLR/AKT/FoxO3 immune toleranceâ€“like pathway disrupts the repair capacity of oligodendrocyte progenitors. Journal of Clinical Investigation, 2018, 128, 2025-2041.	8.2	38
11	White matter injury in the preterm infant: pathology and mechanisms. Acta Neuropathologica, 2017, 134, 331-349.	7.7	301
12	Translational Stroke Research. Stroke, 2017, 48, 2632-2637.	2.0	108
13	Comment on: PH20 is not expressed in murine CNS and oligodendrocyte precursor cells. Annals of Clinical and Translational Neurology, 2017, 4, 608-609.	3.7	2
14	Transient Hypoxemia Chronically Disrupts Maturation of Preterm Fetal Ovine Subplate Neuron Arborization and Activity. Journal of Neuroscience, 2017, 37, 11912-11929.	3.6	55
15	Pathophysiology of Neonatal White Matter Injury. , 2017, , 1695-1703.e4.		1
16	Unbiased Stereological Analysis of Reactive Astrogliosis to Estimate Age-Associated Cerebral White Matter Injury. Journal of Neuropathology and Experimental Neurology, 2016, 75, 539-554.	1.7	16
17	Controversies in preterm brain injury. Neurobiology of Disease, 2016, 92, 90-101.	4.4	57
18	Prenatal Determinants of Brain Development: Recent Studies and Methodological Advances. Neuromethods, 2016, , 303-326.	0.3	0

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19	Hyaluronan Synthesis, Catabolism, and Signaling in Neurodegenerative Diseases. International Journal of Cell Biology, 2015, 2015, 1-10.	2.5	58
20	Disease specific therapies in leukodystrophies and leukoencephalopathies. Molecular Genetics and Metabolism, 2015, 114, 527-536.	1.1	45
21	Brain Injury in the Preterm Infant: New Horizons for Pathogenesis and Prevention. Pediatric Neurology, 2015, 53, 185-192.	2.1	85
22	The Sheep as a Model of Brain Injury in the Premature Infant. Neuromethods, 2015, , 107-128.	0.3	2
23	Role of Recurrent Hypoxia-Ischemia in Preterm White Matter Injury Severity. PLoS ONE, 2014, 9, e112800.	2.5	32
24	Unmyelinated axon loss with postnatal hypertonia after fetal hypoxia. Annals of Neurology, 2014, 75, 533-541.	5.3	26
25	Prenatal cerebral ischemia triggers dysmaturation of caudate projection neurons. Annals of Neurology, 2014, 75, 508-524.	5.3	63
26	Pathophysiology of glia in perinatal white matter injury. Glia, 2014, 62, 1790-1815.	4.9	169
27	What brakes the preterm brain? An arresting story. Pediatric Research, 2014, 75, 227-233.	2.3	52
28	Advances in Neonatal Neurology. Clinics in Perinatology, 2014, 41, xvii-xix.	2.1	2
29	Cerebral White and Gray Matter Injury in Newborns. Clinics in Perinatology, 2014, 41, 1-24.	2.1	81
30	Brain injury in premature neonates: A primary cerebral dysmaturation disorder?. Annals of Neurology, 2014, 75, 469-486.	5.3	273
31	Isoflurane-induced Apoptosis of Neurons and Oligodendrocytes in the Fetal Rhesus Macaque Brain. Anesthesiology, 2014, 120, 626-638.	2.5	195
32	Digestion products of the PH20 hyaluronidase inhibit remyelination. Annals of Neurology, 2013, 73, 266-280.	5.3	94
33	Prenatal Cerebral Ischemia Disrupts MRI-Defined Cortical Microstructure Through Disturbances in Neuronal Arborization. Science Translational Medicine, 2013, 5, 168ra7.	12.4	149
34	Hemodynamic and Metabolic Correlates of Perinatal White Matter Injury Severity. PLoS ONE, 2013, 8, e82940.	2.5	14
35	Differential Susceptibility to Axonopathy in Necrotic and Non-Necrotic Perinatal White Matter Injury. Stroke, 2012, 43, 178-184.	2.0	61
36	Isofluraneâ€induced apoptosis of oligodendrocytes in the neonatal primate brain. Annals of Neurology, 2012, 72, 525-535.	5.3	234

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37	Central axons preparing to myelinate are highly sensitivity to ischemic injury. Annals of Neurology, 2012, 72, 936-951.	5.3	39
38	Astrocytes in aged nonhuman primate brain gray matter synthesize excess hyaluronan. Neurobiology of Aging, 2012, 33, 830.e13-830.e24.	3.1	61
39	Human Neural Stem Cells Induce Functional Myelination in Mice with Severe Dysmyelination. Science Translational Medicine, 2012, 4, 155ra136.	12.4	111
40	Developmental Physiology of the Central Nervous System. , 2012, , 811-815.		2
41	Cell therapy for neonatal hypoxiaâ€"ischemia and cerebral palsy. Annals of Neurology, 2012, 71, 589-600.	5.3	153
42	The Instrumented Fetal Sheep as a Model of Cerebral White Matter Injury in the Premature Infant. Neurotherapeutics, 2012, 9, 359-370.	4.4	141
43	Which Neuroprotective Agents are Ready for Bench to Bedside Translation in the Newborn Infant?. Journal of Pediatrics, 2012, 160, 544-552.e4.	1.8	147
44	Arrested preoligodendrocyte maturation contributes to myelination failure in premature infants. Annals of Neurology, 2012, 71, 93-109.	5.3	368
45	An organotypic slice culture model of chronic white matter injury with maturation arrest of oligodendrocyte progenitors. Molecular Neurodegeneration, 2011, 6, 46.	10.8	27
46	Diffusion characteristics associated with neuronal injury and glial activation following hypoxiaâ€ischemia in the immature brain. Magnetic Resonance in Medicine, 2011, 66, 839-845.	3.0	31
47	White matter lesions defined by diffusion tensor imaging in older adults. Annals of Neurology, 2011, 70, 465-476.	5.3	104
48	Histopathological correlates of magnetic resonance imagingâ€"defined chronic perinatal white matter injury. Annals of Neurology, 2011, 70, 493-507.	5.3	117
49	Golgi: A Biography of the Founder of Modern Neuroscience. Archives of Neurology, 2011, 68, 538.	4.5	0
50	Strain-Specific Differences in Perinatal Rodent Oligodendrocyte Lineage Progression and Its Correlation with Human. Developmental Neuroscience, 2011, 33, 251-260.	2.0	80
51	Timing of Appearance of Late Oligodendrocyte Progenitors Coincides with Enhanced Susceptibility of Preterm Rabbit Cerebral White Matter to Hypoxia-Ischemia. Journal of Cerebral Blood Flow and Metabolism, 2010, 30, 1053-1065.	4.3	87
52	Towards improved animal models of neonatal white matter injury associated with cerebral palsy. DMM Disease Models and Mechanisms, 2010, 3, 678-688.	2.4	106
53	Arrested oligodendrocyte lineage maturation in chronic perinatal white matter injury. Annals of Neurology, 2008, 63, 520-530.	5.3	292
54	Cerebral Blood Flow Heterogeneity in Preterm Sheep: Lack of Physiologic Support for Vascular Boundary Zones in Fetal Cerebral White Matter. Journal of Cerebral Blood Flow and Metabolism, 2008, 28, 995-1008.	4.3	54

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55	A â€˜GAGâ€™ reflex prevents repair of the damaged CNS. Trends in Neurosciences, 2008, 31, 44-52.	8.6	100
56	Maturation-Dependent Vulnerability of Perinatal White Matter in Premature Birth. Stroke, 2007, 38, 724-730.	2.0	310
57	Hypoxiaâ€"Ischemia Preferentially Triggers Glutamate Depletion from Oligodendroglia and Axons in Perinatal Cerebral White Matter. Journal of Cerebral Blood Flow and Metabolism, 2007, 27, 334-347.	4.3	94
58	Large-scale generation of highly enriched neural stem-cell-derived oligodendroglial cultures: maturation-dependent differences in insulin-like growth factor-mediated signal transduction. Journal of Neurochemistry, 2007, 100, 628-638.	3.9	29
59	Perinatal white matter injury: The changing spectrum of pathology and emerging insights into pathogenetic mechanisms. Mental Retardation and Developmental Disabilities Research Reviews, 2006, 12, 129-140.	3.6	279
60	Protective effects of caffeine on chronic hypoxia-induced perinatal white matter injury. Annals of Neurology, 2006, 60, 696-705.	5.3	173
61	Topical Review: Role of Instrumented Fetal Sheep Preparations in Defining the Pathogenesis of Human Periventricular White-Matter Injury. Journal of Child Neurology, 2006, 21, 582-589.	1.4	103
62	Spatial Heterogeneity in Oligodendrocyte Lineage Maturation and Not Cerebral Blood Flow Predicts Fetal Ovine Periventricular White Matter Injury. Journal of Neuroscience, 2006, 26, 3045-3055.	3.6	170
63	Hyaluronan accumulates in demyelinated lesions and inhibits oligodendrocyte progenitor maturation. Nature Medicine, 2005, 11, 966-972.	30.7	529
64	Selective vulnerability of preterm white matter to oxidative damage defined by F₂â€isoprostanes. Annals of Neurology, 2005, 58, 108-120.	5.3	216
65	Developmental Changes in Diffusion Anisotropy Coincide with Immature Oligodendrocyte Progression and Maturation of Compound Action Potential. Journal of Neuroscience, 2005, 25, 5988-5997.	3.6	181
66	Preterm Fetal Hypoxia-Ischemia Causes Hypertonia and Motor Deficits in the Neonatal Rabbit: A Model for Human Cerebral Palsy?. Journal of Neuroscience, 2004, 24, 24-34.	3.6	198
67	Emerging concepts in periventricular white matter injury. Seminars in Perinatology, 2004, 28, 405-414.	2.5	170
68	CD44 expression identifies astrocyte-restricted precursor cells. Developmental Biology, 2004, 276, 31-46.	2.0	193
69	Mature myelin basic protein-expressing oligodendrocytes are insensitive to kainate toxicity. Journal of Neuroscience Research, 2003, 71, 237-245.	2.9	130
70	Quantitative analysis of perinatal rodent oligodendrocyte lineage progression and its correlation with human. Experimental Neurology, 2003, 181, 231-240.	4.1	250
71	Arrested Oligodendrocyte Lineage Progression During Human Cerebral White Matter Development: Dissociation Between the Timing of Progenitor Differentiation and Myelinogenesis. Journal of Neuropathology and Experimental Neurology, 2002, 61, 197-211.	1.7	175
72	Selective Vulnerability of Late Oligodendrocyte Progenitors to Hypoxiaâ€"Ischemia. Journal of Neuroscience, 2002, 22, 455-463.	3.6	706

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73	Volumetric Brain Differences in Children with Periventricular T2-Signal Hyperintensities. American Journal of Roentgenology, 2001, 177, 695-702.	2.2	28
74	Late Oligodendrocyte Progenitors Coincide with the Developmental Window of Vulnerability for Human Perinatal White Matter Injury. Journal of Neuroscience, 2001, 21, 1302-1312.	3.6	855
75	Recent advances in human perinatal white matter injury. Progress in Brain Research, 2001, 132, 131-147.	1.4	30
76	BDNF Blocks Caspase-3 Activation in Neonatal Hypoxiaâ€“Ischemia. Neurobiology of Disease, 2000, 7, 38-53.	4.4	251
77	A new Alamar Blue viability assay to rapidly quantify oligodendrocyte death. Journal of Neuroscience Methods, 1999, 91, 47-54.	2.5	75
78	Intracellular Redox State Determines Whether Nitric Oxide Is Toxic or Protective to Rat Oligodendrocytes in Culture. Journal of Neurochemistry, 1999, 73, 476-484.	3.9	76
79	Human oligodendroglial development: Relationship to periventricular leukomalacia. Seminars in Pediatric Neurology, 1998, 5, 180-189.	2.0	162
80	Maturation-Dependent Vulnerability of Oligodendrocytes to Oxidative Stress-Induced Death Caused by Glutathione Depletion. Journal of Neuroscience, 1998, 18, 6241-6253.	3.6	544
81	Cellular and molecular pathogenesis of periventricular white matter injury. Mental Retardation and Developmental Disabilities Research Reviews, 1997, 3, 96-107.	3.6	64
82	Cystine Deprivation Induces Oligodendroglial Death: Rescue by Free Radical Scavengers and by a Diffusible Glial Factor. Journal of Neurochemistry, 1996, 67, 566-573.	3.9	114
83	Differential response of neutral endopeptidase 24.11 (?enkephalinase?), and cholinergic and opioidergic markers to hypoglossal axotomy. Journal of Comparative Neurology, 1994, 340, 149-160.	1.6	8
84	Ventral mesencephalic and cortical transplants into the rat striatum display enhanced activity for neutral endopeptidase 24.11 (â€˜enkephalinaseâ€™; CALLA). Brain Research, 1993, 612, 85-95.	2.2	2
85	Differential isoform profiles of Î±2-macroglobulin from plasma of patients with chronic-progressive or relapsing-remitting multiple sclerosis. Clinica Chimica Acta, 1992, 211, 27-36.	1.1	18
86	Fluorescent histochemical localization of neutral endopeptidase-24.11 (enkephalinase) in the rat brainstem. Journal of Comparative Neurology, 1990, 296, 130-158.	1.6	17
87	Fluorescent histochemical localization of neutral endopeptidase-24.11 (enkephalinase) in the rat spinal cord. Journal of Comparative Neurology, 1989, 280, 436-450.	1.6	15
88	Altered isoelectric focusing of Î±2-macroglobulin from plasma of patients with diabetes mellitus. Clinica Chimica Acta, 1985, 150, 21-29.	1.1	2
89	Differential isoelectric focusing properties of crude and purified human Î±2-macroglobulin and Î±2-macroglobulinâ€"proteinase complexes. Biomedical Applications, 1983, 278, 43-51.	1.7	7
90	Characterization of Î±2-macroglobulin from plasma of cystic fibrosis patients and controls. Biochemical Medicine, 1983, 30, 34-42.	0.5	2