Steven W Levison

List of Publications by Year
in descending order

122 papers	9,240 citations	47006 47 h-index	42399 92 g-index
131 all docs	131 docs citations	131 times ranked	10009 citing authors

#	Article	IF	Citations
1	Both oligodendrocytes and astrocytes develop from progenitors in the subventricular zone of postnatal rat forebrain. Neuron, 1993, 10, 201-212.	8.1	677
2	The role of inflammation in perinatal brain injury. Nature Reviews Neurology, 2015, 11, 192-208.	10.1	669
3	Diabetic Retinopathy. Survey of Ophthalmology, 2002, 47, S253-S262.	4.0	499
4	Minocycline Reduces Proinflammatory Cytokine Expression, Microglial Activation, and Caspase-3 Activation in a Rodent Model of Diabetic Retinopathy. Diabetes, 2005, 54, 1559-1565.	0.6	485
5	The Ins2^{Akita}Mouse as a Model of Early Retinal Complications in Diabetes. , 2005, 46, 2210.		442
6	Proâ€regenerative properties of cytokineâ€activated astrocytes. Journal of Neurochemistry, 2004, 89, 1092-1100.	3.9	405
7	Interleukinâ€1: A master regulator of neuroinflammation. Journal of Neuroscience Research, 2004, 78, 151-156.	2.9	326
8	Activation of the Mammalian Target of Rapamycin (mTOR) Is Essential for Oligodendrocyte Differentiation. Journal of Neuroscience, 2009, 29, 6367-6378.	3.6	233
9	Early patterns of migration, morphogenesis, and intermediate filament expression of subventricular zone cells in the postnatal rat forebrain. Journal of Neuroscience, 1995, 15, 7238-7249.	3.6	182
10	Neural Stem/Progenitor Cells Participate in the Regenerative Response to Perinatal Hypoxia/Ischemia. Journal of Neuroscience, 2006, 26, 4359-4369.	3.6	179
11	Hypoxia/Ischemia Depletes the Rat Perinatal Subventricular Zone of Oligodendrocyte Progenitors and Neural Stem Cells. Developmental Neuroscience, 2001, 23, 234-247.	2.0	162
12	Multipotential and lineage restricted precursors coexist in the mammalian perinatal subventricular zone. Journal of Neuroscience Research, 1997, 48, 83-94.	2.9	161
13	A role for ciliary neurotrophic factor as an inducer of reactive gliosis, the glial response to central nervous system injury.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 5865-5869.	7.1	156
14	Cycling cells in the adult rat neocortex preferentially generate oligodendroglia. Journal of Neuroscience Research, 1999, 57, 435-446.	2.9	153
15	The Type 1 Interleukin-1 Receptor Is Essential for the Efficient Activation of Microglia and the Induction of Multiple Proinflammatory Mediators in Response to Brain Injury. Journal of Neuroscience, 2002, 22, 6071-6082.	3.6	151
16	Sustained neocortical neurogenesis after neonatal hypoxic/ischemic injury. Annals of Neurology, 2007, 61, 199-208.	5.3	144
17	Glutamate enhances survival and proliferation of neural progenitors derived from the subventricular zone. Neuroscience, 2005, 131, 55-65.	2.3	139
18	Roles of the mammalian subventricular zone in brain development. Progress in Neurobiology, 2003, 69, 49-69.	5.7	137

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19	Insulin and IGF receptor signalling in neural-stem-cell homeostasis. Nature Reviews Endocrinology, 2015, 11, 161-170.	9.6	132
20	Ciliary Neurotrophic Factor Activates Spinal Cord Astrocytes, Stimulating Their Production and Release of Fibroblast Growth Factor-2, to Increase Motor Neuron Survival. Experimental Neurology, 2002, 173, 46-62.	4.1	129
21	Perinatal Hypoxia-Ischemia Induces Apoptotic and Excitotoxic Death of Periventricular White Matter Oligodendrocyte Progenitors. Developmental Neuroscience, 2001, 23, 203-208.	2.0	128
22	Hypoxia/ischemia expands the regenerative capacity of progenitors in the perinatal subventricular zone. Neuroscience, 2006, 139, 555-564.	2.3	123
23	Neural Stem Cells in the Subventricular Zone are Resilient to Hypoxia/Ischemia whereas Progenitors are Vulnerable. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 814-825.	4.3	109
24	Roles of the mammalian subventricular zone in cell replacement after brain injury. Progress in Neurobiology, 2004, 74, 77-99.	5.7	109
25	Acute Exposure to CNTFin VivoInduces Multiple Components of Reactive Gliosis. Experimental Neurology, 1996, 141, 256-268.	4.1	103
26	Interleukin-1 and the Interleukin-1 Type 1 Receptor are Essential for the Progressive Neurodegeneration that Ensues Subsequent to a Mild Hypoxic/Ischemic Injury. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, 17-29.	4.3	103
27	Heparin crosslinked chitosan microspheres for the delivery of neural stem cells and growth factors for central nervous system repair. Acta Biomaterialia, 2013, 9, 6834-6843.	8.3	100
28	Astrocytes produce CNTF during the remyelination phase of viral-induced spinal cord demyelination to stimulate FGF-2 production. Neurobiology of Disease, 2003, 13, 89-101.	4.4	91
29	Enhanced neurogenesis following stroke. Journal of Neuroscience Research, 2003, 73, 277-283.	2.9	82
30	Tumor Necrosis Factor-related Apoptosis-inducing Ligand (TRAIL) Signaling and Cell Death in the Immature Central Nervous System after Hypoxia-Ischemia and Inflammation. Journal of Biological Chemistry, 2014, 289, 9430-9439.	3.4	82
31	Neonatal hypoxic/ischemic brain injury induces production of calretininâ€expressing interneurons in the striatum. Journal of Comparative Neurology, 2008, 511, 19-33.	1.6	80
32	Transforming growth factor ?1 prevents IL-1?-induced microglial activation, whereas TNF?- and IL-6-stimulated activation are not antagonized. Glia, 2002, 40, 109-120.	4.9	78
33	Expression of Mouse Ovarian Insulin Growth Factor System Components During Follicular Development and Atresia**This work was supported by NIH Grant HD-24565 (to J.M.H.) and an NIH fellowship (to S.A.W).. Endocrinology, 1998, 139, 5205-5214.	2.8	75
34	IGF-II Promotes Stemness of Neural Restricted Precursors. Stem Cells, 2012, 30, 1265-1276.	3.2	75
35	Neuroinflammation and Both Cytotoxic and Vasogenic Edema Are Reduced in Interleukin-1 Type 1 Receptor-Deficient Mice Conferring Neuroprotection. Stroke, 2005, 36, 2226-2231.	2.0	74
36	IL-6-type cytokines enhance epidermal growth factor-stimulated astrocyte proliferation. Glia, 2000, 32, 328-337.	4.9	68

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37	Characterization and Partial Purification of AIM: A Plasma Protein That Induces Rat Cerebral Type 2 Astroglia from Bipotential Glial Progenitors. Journal of Neurochemistry, 1991, 57, 782-794.	3.9	61
38	Ceramide-Coated Balloon Catheters Limit Neointimal Hyperplasia After Stretch Injury in Carotid Arteries. Circulation Research, 2000, 87, 282-288.	4.5	59
39	Delayed IGF-1 Administration Rescues Oligodendrocyte Progenitors from Glutamate-Induced Cell Death and Hypoxic-Ischemic Brain Damage. Developmental Neuroscience, 2007, 29, 302-310.	2.0	58
40	Ciliary neurotrophic factor and interleukinâ€6 differentially activate microglia. Journal of Neuroscience Research, 2008, 86, 1538-1547.	2.9	58
41	The gp 120 glycoprotein of human immunodeficiency virus type 1 binds to sensory ganglion neurons. Annals of Neurology, 1993, 34, 855-863.	5.3	57
42	Comparison and quantitation of Ia antigen expression on cultured macroglia and ameboid microglia from Lewis rat cerebral cortex: analyses and implications. Journal of Neuroimmunology, 1989, 25, 63-74.	2.3	56
43	Vascular Endothelial Growth Factors A and C are Induced in the SVZ Following Neonatal Hypoxiaâ€"Ischemia and Exert Different Effects on Neonatal Glial Progenitors. Translational Stroke Research, 2013, 4, 158-170.	4.2	56
44	Brain Injury Expands the Numbers of Neural Stem Cells and Progenitors in the SVZ by Enhancing Their Responsiveness to EGF. ASN Neuro, 2009, 1, AN20090002.	2.7	54
45	Leukemia inhibitory factor participates in the expansion of neural stem/progenitors after perinatal hypoxia/ischemia. Neuroscience, 2007, 148, 501-509.	2.3	53
46	Perinatal Hypoxia/Ischemia Damages and Depletes Progenitors from the Mouse Subventricular Zone. Developmental Neuroscience, 2004, 26, 266-274.	2.0	50
47	Astrogliosis is delayed in type 1 interleukin-1 receptor-null mice following a penetrating brain injury. Journal of Neuroinflammation, 2006, 3, 15.	7.2	50
48	Perinatal Hypoxic/Ischemic Brain Injury Induces Persistent Production of Striatal Neurons from Subventricular Zone Progenitors. Developmental Neuroscience, 2007, 29, 331-340.	2.0	49
49	Ciliary Neurotrophic Factor Stimulates Astroglial Hypertrophyin Vivoandin Vitro. Experimental Neurology, 1998, 150, 171-182.	4.1	48
50	Opposite effect of inflammation on subventricular zone versus hippocampal precursors in brain injury. Annals of Neurology, 2011, 70, 616-626.	5.3	47
51	Insulin-like Growth Factor II: An Essential Adult Stem Cell Niche Constituent in Brain and Intestine. Stem Cell Reports, 2019, 12, 816-830.	4.8	47
52	Insulin-like Growth Factor-II (IGF-II) and IGF-II Analogs with Enhanced Insulin Receptor-a Binding Affinity Promote Neural Stem Cell Expansion. Journal of Biological Chemistry, 2014, 289, 4626-4633.	3.4	46
53	Selective Apoptosis Within the Rat Subependymal Zone: A Plausible Mechanism for Determining Which Lineages Develop from Neural Stem Cells. Developmental Neuroscience, 2000, 22, 106-115.	2.0	45
54	17Î²-Estradiol protects the neonatal brain from hypoxiaâ€"ischemia. Experimental Neurology, 2007, 208, 269-276.	4.1	44

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55	Damage to the Choroid Plexus, Ependyma and Subependyma as a Consequence of Perinatal Hypoxia/Ischemia. Developmental Neuroscience, 2002, 24, 426-436.	2.0	43
56	Gray Matter Oligodendrocyte Progenitors and Neurons Die Caspase-3 Mediated Deaths Subsequent to Mild Perinatal Hypoxic/Ischemic Insults. Developmental Neuroscience, 2005, 27, 149-159.	2.0	42
57	Leukemia Inhibitory Factor Is Essential for Subventricular Zone Neural Stem Cell and Progenitor Homeostasis as Revealed by a Novel Flow Cytometric Analysis. Developmental Neuroscience, 2012, 34, 449-462.	2.0	41
58	Contextâ€dependent ILâ€6 potentiation of interferonâ€•gammaâ€induced ILâ€12 secretion and CD40 expression in murine microglia. Journal of Neurochemistry, 2009, 111, 808-818.	3.9	40
59	TGFÃŸ1 Stimulates the Over-Production of White Matter Astrocytes from Precursors of the â€œBrain Marrowâ€•in a Rodent Model of Neonatal Encephalopathy. PLoS ONE, 2010, 5, e9567.	2.5	39
60	Neural Stem Cells in the Immature, but Not the Mature, Subventricular Zone Respond Robustly to Traumatic Brain Injury. Developmental Neuroscience, 2015, 37, 29-42.	2.0	38
61	Astrocytic ceruloplasmin expression, which is induced by IL-1? and by traumatic brain injury, increases in the absence of the IL-1 type 1 receptor. Glia, 2003, 44, 76-84.	4.9	37
62	Pre-Conditioning Induces the Precocious Differentiation of Neonatal Astrocytes to Enhance Their Neuroprotective Properties. ASN Neuro, 2011, 3, AN20100029.	2.7	37
63	Mechanisms of Mouse Neural Precursor Expansion after Neonatal Hypoxia-Ischemia. Journal of Neuroscience, 2015, 35, 8855-8865.	3.6	37
64	Expression of the anaphylatoxin C5a receptor in the oligodendrocyte lineage. Brain Research, 2001, 894, 321-326.	2.2	35
65	Astrocytes and developmental white matter disorders. Mental Retardation and Developmental Disabilities Research Reviews, 2006, 12, 97-104.	3.6	35
66	Improvements in biomaterial matrices for neural precursor cell transplantation. Molecular and Cellular Therapies, 2014, 2, 19.	0.2	35
67	Neural Stem Cells in the Subventricular Zone Are a Source of Astrocytes and Oligodendrocytes, but Not Microglia. Developmental Neuroscience, 2003, 25, 184-196.	2.0	33
68	CNTF-Activated Astrocytes Release a Soluble Trophic Activity for Oligodendrocyte Progenitors. Neurochemical Research, 2007, 32, 263-271.	3.3	33
69	Defining the Critical Period for Neocortical Neurogenesis after Pediatric Brain Injury. Developmental Neuroscience, 2010, 32, 488-98.	2.0	33
70	Optimizing a multifunctional microsphere scaffold to improve neural precursor cell transplantation for traumatic brain injury repair. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, E419-E432.	2.7	33
71	The FLT3 Tyrosine Kinase Receptor Inhibits Neural Stem/Progenitor Cell Proliferation and Collaborates with NGF to Promote Neuronal Survival. Molecular and Cellular Neurosciences, 2001, 18, 381-393.	2.2	32
72	Differential expression of protein tyrosine kinase genes during microglial activation. Glia, 2002, 40, 11-24.	4.9	32

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73	Differential suppression of interferon-Î³-induced Ia antigen expression on cultured rat astroglia and microglia by second messengersâ˜†. Journal of Neuroimmunology, 1990, 29, 213-222.	2.3	31
74	Persistence of Multipotential Progenitors in the Juvenile Rat Subventricular Zone. Developmental Neuroscience, 1996, 18, 255-265.	2.0	31
75	Ciliary neurotrophic factor stimulates nuclear hypertrophy and increases the GFAP content of cultured astrocytes. Brain Research, 1998, 803, 189-193.	2.2	30
76	Pediatric brain repair from endogenous neural stem cells of the subventricular zone. Pediatric Research, 2018, 83, 385-396.	2.3	30
77	Ciliary neurotrophic factor induces expression of the IGF type I receptor and FGF receptor 1 mRNAs in adult rat brain oligodendrocytes. Journal of Neuroscience Research, 1999, 57, 447-457.	2.9	25
78	Identification of Bax-Interacting Proteins in Oligodendrocyte Progenitors during Glutamate Excitotoxicity and Perinatal Hypoxiaâ€"Ischemia. ASN Neuro, 2013, 5, AN20130027.	2.7	25
79	Ciliary neurotrophic factor (CNTF) plus soluble CNTF receptor Î± increases cyclooxygenase-2 expression, PGE2release and interferon-Î³-induced CD40 in murine microglia. Journal of Neuroinflammation, 2009, 6, 7.	7.2	24
80	Death effector activation in the subventricular zone subsequent to perinatal hypoxia/ischemia. Journal of Neurochemistry, 2007, 103, 1121-1131.	3.9	23
81	Stem cell therapies for perinatal brain injuries. Seminars in Fetal and Neonatal Medicine, 2007, 12, 259-272.	2.3	22
82	Astrocyteâ€produced leukemia inhibitory factor expands the neural stem/progenitor pool following perinatal hypoxiaâ€"ischemia. Journal of Neuroscience Research, 2016, 94, 1531-1545.	2.9	22
83	An improved method for propagating oligodendrocyte progenitors in vitro. Journal of Neuroscience Methods, 1997, 77, 163-168.	2.5	21
84	Egr-1 is a Critical Regulator of EGF-Receptor-Mediated Expansion of Subventricular Zone Neural Stem Cells and Progenitors During Recovery from Hypoxiaâ€"Hypoglycemia. ASN Neuro, 2013, 5, AN20120032.	2.7	19
85	Ionizing Radiation Perturbs Cell Cycle Progression of Neural Precursors in the Subventricular Zone Without Affecting Their Long-Term Self-Renewal. ASN Neuro, 2015, 7, 175909141557802.	2.7	18
86	Neuroregenerative and protective functions of Leukemia Inhibitory Factor in perinatal hypoxic-ischemic brain injury. Experimental Neurology, 2020, 330, 113324.	4.1	18
87	Cytokines regulate IGF binding proteins in the CNS. Progress in Growth Factor Research, 1995, 6, 181-187.	1.6	16
88	Delayed ALK5 inhibition improves functional recovery in neonatal brain injury. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 787-800.	4.3	16
89	Insulin-Like Growth Factor Receptor Signaling is Necessary for Epidermal Growth Factor Mediated Proliferation of SVZ Neural Precursors in vitro Following Neonatal HypoxiaÃ¢â‚¬â€œIschemia. Frontiers in Neurology, 2014, 5, 79.	2.4	15
90	Leukemia Inhibitory Factor Haplodeficiency Desynchronizes Glial Reactivity and Exacerbates Damage and Functional Deficits after a Concussive Brain Injury. Journal of Neurotrauma, 2016, 33, 1522-1534.	3.4	15

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91	Age-Dependent Effects of ALK5 Inhibition and Mechanism of Neuroprotection in Neonatal Hypoxic-Ischemic Brain Injury. Developmental Neuroscience, 2017, 39, 338-351.	2.0	14
92	PDGF-Responsive Progenitors Persist in the Subventricular Zone across the Lifespan. ASN Neuro, 2014, 6, AN20120041.	2.7	13
93	<i>Olig1</i> is required for nogginâ€induced neonatal myelin repair. Annals of Neurology, 2017, 81, 560-571.	5.3	13
94	Developmental IL-6 Exposure Favors Production of PDGF-Responsive Multipotential Progenitors at the Expense of Neural Stem Cells and Other Progenitors. Stem Cell Reports, 2020, 14, 861-875.	4.8	13
95	Pitfalls in the Quest of Neuroprotectants for the Perinatal Brain. Developmental Neuroscience, 2011, 33, 189-198.	2.0	12
96	Tethered growth factors on biocompatible scaffolds improve stemness of cultured rat and human neural stem cells and growth of oligodendrocyte progenitors. Methods, 2018, 133, 54-64.	3.8	12
97	Subacute Transplantation of Native and Genetically Engineered Neural Progenitors Seeded on Microsphere Scaffolds Promote Repair and Functional Recovery After Traumatic Brain Injury. ASN Neuro, 2019, 11, 175909141983018.	2.7	12
98	Perinatal IL-1Î²-induced inflammation suppresses Tbr2+ intermediate progenitor cell proliferation in the developing hippocampus accompanied by long-term behavioral deficits. Brain, Behavior, & Immunity - Health, 2020, 7, 100106.	2.5	10
99	Schwann cells influence the expression of ganglioside GD3 by rat dorsal root ganglion neuronsâ˜†. Journal of Neuroimmunology, 1989, 24, 223-232.	2.3	9
100	Molecular features of neural stem cells enable their enrichment using pharmacological inhibitors of survivalâ€promoting kinases. Journal of Neurochemistry, 2014, 128, 376-390.	3.9	9
101	Moderately Inducing Autophagy Reduces Tertiary Brain Injury after Perinatal Hypoxia-Ischemia. Cells, 2021, 10, 898.	4.1	8
102	Cycling cells in the adult rat neocortex preferentially generate oligodendroglia. Journal of Neuroscience Research, 1999, 57, 435-446.	2.9	8
103	Astrocyte Origins. , 1993, , 1-22.		7
104	C6-Ceramide-Coated Catheters Promote Re-Endothelialization of Stretch- Injured Arteries. Vascular Disease Prevention, 2008, 5, 200-210.	0.2	6
105	Unmasking the responses of the stem cells and progenitors in the subventricular zone after neonatal and pediatric brain injuries. Neural Regeneration Research, 2016, 11, 45.	3.0	6
106	Modestly increasing systemic interleukin-6 perinatally disturbs secondary germinal zone neurogenesis and gliogenesis and produces sociability deficits. Brain, Behavior, and Immunity, 2022, 101, 23-36.	4.1	6
107	Astrocyte Development. , 2005, , 197-222.		5
108	TGFÎ²1: Friend or Foe During Recovery in Encephalopathy. Neuroscientist, 2019, 25, 192-198.	3.5	5

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109	Proneurotrophins Induce Apoptotic Neuronal Death After Controlled Cortical Impact Injury in Adult Mice. ASN Neuro, 2020, 12, 175909142093086.	2.7	5
110	Anti-ganglioside antibodies reveal subsets of cultured rat dorsal root ganglion neurons. Brain Research, 1990, 529, 349-353.	2.2	4
111	Leukemia Inhibitory Factor Is Required for Subventricular Zone Astrocyte Progenitor Proliferation and for Prokineticin-2 Production after a Closed Head Injury in Mice. Neurotrauma Reports, 2021, 2, 285-302.	1.4	4
112	Multimarker Flow Cytometric Characterization, Isolation and Differentiation of Neural Stem Cells and Progenitors of the Normal and Injured Mouse Subventricular Zone. , 2015, , 175-186.		3
113	Multipotential and lineage restricted precursors coexist in the mammalian perinatal subventricular zone. Journal of Neuroscience Research, 1997, 48, 83-94.	2.9	3
114	Cellular Heterogeneity of the Neonatal SVZ and its Contributions to Forebrain Neurogenesis and Gliogenesis. , 2006, , 1-29.		3
115	Oligodendrocyte progenitor proliferation is disinhibited following traumatic brain injury in leukemia inhibitory factor heterozygous mice. Journal of Neuroscience Research, 2022, 100, 578-597.	2.9	3
116	Subventricular zone adult mouse neural stem cells require insulin receptor forÂself-renewal. Stem Cell Reports, 2022, 17, 1411-1427.	4.8	3
117	Divergent glial fibrillary acidic protein and its mRNA in the activated supraoptic nucleus. Neuroscience Letters, 2005, 380, 295-299.	2.1	2
118	Analyzing mouse neural stem cell and progenitor cellÂproliferation using EdU incorporation andÂmulticolor flow cytometry. STAR Protocols, 2022, 3, 101065.	1.2	2
119	Whither Stem Cell Biology?. Developmental Neuroscience, 2000, 22, 5-6.	2.0	1
120	Essays on Citation Classics inDevelopmental Neuroscience. Developmental Neuroscience, 2012, 34, 1-1.	2.0	0
121	Special Issue Dedicated to Susan J. Vannucci and Robert C. Vannucci. Developmental Neuroscience, 2017, 39, 5-6.	2.0	0
122	Responses of the SVZ to Hypoxia and Hypoxia/Ischemia. , 2006, , 242-259.		0