S Thomas Carmichael

List of Publications by Year
in descending order

137 papers	19,551 citations	13099 68 h-index	13379 130 g-index
149 all docs	149 docs citations	149 times ranked	18533 citing authors

#	Article	IF	Citations
1	Expanding the horizon of research into theÂpathogenesis of the white matter diseases: Proceedings of the 2021 Annual Workshop of the Albert Research Institute for White Matter and Cognition. GeroScience, 2022, 44, 25-37.	4.6	1
2	Singleâ€nucleus transcriptome analysis reveals diseaseâ€•and regenerationâ€associated endothelial cells in white matter vascular dementia. Journal of Cellular and Molecular Medicine, 2022, 26, 3183-3195.	3.6	11
3	Particle Hydrogels Decrease Cerebral Atrophy and Attenuate Astrocyte and Microglia/Macrophage Reactivity after Stroke. Advanced Therapeutics, 2022, 5, .	3.2	12
4	Phosphodiesterase 10A Inhibition Leads to Brain Region-Specific Recovery Based on Stroke Type. Translational Stroke Research, 2021, 12, 303-315.	4.2	8
5	Encouraging an excitable brain state: mechanisms of brain repair in stroke. Nature Reviews Neuroscience, 2021, 22, 38-53.	10.2	108
6	Chemokine Receptors CC Chemokine Receptor 5 and C-X-C Motif Chemokine Receptor 4 Are New Therapeutic Targets for Brain Recovery after Traumatic Brain Injury. Journal of Neurotrauma, 2021, 38, 2003-2017.	3.4	14
7	Learning and Stroke Recovery: Parallelism of Biological Substrates. Seminars in Neurology, 2021, 41, 147-156.	1.4	4
8	Patient-derived glial enriched progenitors repair functional deficits due to white matter stroke and vascular dementia in rodents. Science Translational Medicine, 2021, 13, .	12.4	31
9	Pharmacological blockers of CCR5 and CXCR4 improve recovery after traumatic brain injury. Experimental Neurology, 2021, 338, 113604.	4.1	22
10	PRIMED2 Preclinical Evidence Scoring Tool to Assess Readiness for Translation of Neuroprotection Therapies. Translational Stroke Research, 2021, , 1.	4.2	3
11	Reliable generation of glial enriched progenitors from human fibroblast-derived iPSCs. Stem Cell Research, 2021, 55, 102458.	0.7	8
12	Heart and Brain Pericytes Exhibit a Pro-Fibrotic Response After Vascular Injury. Circulation Research, 2021, 129, e141-e143.	4.5	15
13	Neuronal Network Topology Indicates Distinct Recovery Processes after Stroke. Cerebral Cortex, 2020, 30, 6363-6375.	2.9	20
14	Glia in neurodegeneration: Drivers of disease or along for the ride?. Neurobiology of Disease, 2020, 142, 104957.	4.4	56
15	Click by Click Microporous Annealed Particle (MAP) Scaffolds. Advanced Healthcare Materials, 2020, 9, e1901391.	7.6	58
16	Blowing up Neural Repair for Stroke Recovery. Stroke, 2020, 51, 3169-3173.	2.0	17
17	Injection of Hydrogel Biomaterial Scaffolds to The Brain After Stroke. Journal of Visualized Experiments, 2020, , .	0.3	0
18	Injection of Hydrogel Biomaterial Scaffolds to The Brain After Stroke. Journal of Visualized Experiments, 2020, , .	0.3	4

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19	Mechanisms of demyelination and remyelination in the young and aged brain following white matter stroke. Neurobiology of Disease, 2019, 126, 5-12.	4.4	48
20	A stroke recovery trial development framework: Consensus-based core recommendations from the Second Stroke Recovery and Rehabilitation Roundtable. International Journal of Stroke, 2019, 14, 792-802.	5.9	64
21	A Stroke Recovery Trial Development Framework: Consensus-Based Core Recommendations from the Second Stroke Recovery and Rehabilitation Roundtable. Neurorehabilitation and Neural Repair, 2019, 33, 959-969.	2.9	24
22	Region-specific and activity-dependent regulation of SVZ neurogenesis and recovery after stroke. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13621-13630.	7.1	59
23	DeepBehavior: A Deep Learning Toolbox for Automated Analysis of Animal and Human Behavior Imaging Data. Frontiers in Systems Neuroscience, 2019, 13, 20.	2.5	78
24	Regeneration Enhances Metastasis: A Novel Role for Neurovascular Signaling in Promoting Melanoma Brain Metastasis. Frontiers in Neuroscience, 2019, 13, 297.	2.8	14
25	CCR5 Is a Therapeutic Target for Recovery after Stroke and Traumatic Brain Injury. Cell, 2019, 176, 1143-1157.e13.	28.9	249
26	White Matter Stroke Induces a Unique Oligo-Astrocyte Niche That Inhibits Recovery. Journal of Neuroscience, 2019, 39, 9343-9359.	3.6	29
27	Customized Brain Cells for Stroke Patients Using Pluripotent Stem Cells. Stroke, 2018, 49, 1091-1098.	2.0	29
28	Foxj1 expressing ependymal cells do not contribute new cells to sites of injury or stroke in the mouse forebrain. Scientific Reports, 2018, 8, 1766.	3.3	22
29	Uncovering the Rosetta Stone: Report from the First Annual Conference on Key Elements in Translating Stroke Therapeutics from Pre-Clinical to Clinical. Translational Stroke Research, 2018, 9, 258-266.	4.2	10
30	Nâ€acetylcysteine targets 5 lipoxygenaseâ€derived, toxic lipids and can synergize with prostaglandin E₂ to inhibit ferroptosis and improve outcomes following hemorrhagic stroke in mice. Annals of Neurology, 2018, 84, 854-872.	5.3	195
31	Injectable and Spatially Patterned Microporous Annealed Particle (MAP) Hydrogels for Tissue Repair Applications. Advanced Science, 2018, 5, 1801046.	11.2	56
32	Dual-function injectable angiogenic biomaterial for the repair of brain tissue following stroke. Nature Materials, 2018, 17, 642-651.	27.5	235
33	Stroke in CNS white matter: Models and mechanisms. Neuroscience Letters, 2018, 684, 193-199.	2.1	24
34	CREB controls cortical circuit plasticity and functional recovery after stroke. Nature Communications, 2018, 9, 2250.	12.8	96
35	Molecular, cellular and functional events in axonal sprouting after stroke. Experimental Neurology, 2017, 287, 384-394.	4.1	150
36	Hydrogel-delivered brain-derived neurotrophic factor promotes tissue repair and recovery after stroke. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 1030-1045.	4.3	159

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37	Astrocytes Can Adopt Endothelial Cell Fates in a p53-Dependent Manner. Molecular Neurobiology, 2017, 54, 4584-4596.	4.0	14
38	Ependymal cell contribution to scar formation after spinal cord injury is minimal, local and dependent on direct ependymal injury. Scientific Reports, 2017, 7, 41122.	3.3	108
39	Engineered HA hydrogel for stem cell transplantation in the brain: Biocompatibility data using a design of experiment approach. Data in Brief, 2017, 10, 202-209.	1.0	37
40	Agreed Definitions and a Shared Vision for New Standards in Stroke Recovery Research: The Stroke Recovery and Rehabilitation Roundtable Taskforce. Neurorehabilitation and Neural Repair, 2017, 31, 793-799.	2.9	225
41	Enhancing the alignment of the preclinical and clinical stroke recovery research pipeline: Consensus-based core recommendations from the Stroke Recovery and Rehabilitation Roundtable translational working group. International Journal of Stroke, 2017, 12, 462-471.	5.9	82
42	Agreed definitions and a shared vision for new standards in stroke recovery research: The Stroke Recovery and Rehabilitation Roundtable taskforce. International Journal of Stroke, 2017, 12, 444-450.	5.9	624
43	Translational Stroke Research. Stroke, 2017, 48, 2632-2637.	2.0	108
44	Hydrogels with precisely controlled integrin activation dictate vascular patterning andÂpermeability. Nature Materials, 2017, 16, 953-961.	27.5	158
45	Enhancing the Alignment of the Preclinical and Clinical Stroke Recovery Research Pipeline: Consensus-Based Core Recommendations From the Stroke Recovery and Rehabilitation Roundtable Translational Working Group. Neurorehabilitation and Neural Repair, 2017, 31, 699-707.	2.9	64
46	Moving Rehabilitation Research Forward: Developing Consensus Statements for Rehabilitation and Recovery Research. Neurorehabilitation and Neural Repair, 2017, 31, 694-698.	2.9	40
47	Alzheimer's Diseaseâ€"Related Dementias Summit 2016: National research priorities. Neurology, 2017, 89, 2381-2391.	1.1	109
48	Injection of Microporous Annealing Particle (MAP) Hydrogels in the Stroke Cavity Reduces Gliosis and Inflammation and Promotes NPC Migration to the Lesion. Advanced Materials, 2017, 29, 1606471.	21.0	182
49	Mechanisms of Stroke Recovery. , 2017, , 171-174.		0
50	Nogo receptor blockade overcomes remyelination failure after white matter stroke and stimulates functional recovery in aged mice. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8453-E8462.	7.1	94
51	Moving rehabilitation research forward: Developing consensus statements for rehabilitation and recovery research. International Journal of Stroke, 2016, 11, 454-458.	5.9	137
52	Hydrogels for brain repair after stroke: an emerging treatment option. Current Opinion in Biotechnology, 2016, 40, 155-163.	6.6	96
53	Systematic optimization of an engineered hydrogel allows for selective control of human neural stem cell survival and differentiation after transplantation in the stroke brain. Biomaterials, 2016, 105, 145-155.	11.4	184
54	Emergent properties of neural repair: elemental biology to therapeutic concepts. Annals of Neurology, 2016, 79, 895-906.	5.3	111

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55	A Versatile Murine Model of Subcortical White Matter Stroke for the Study of Axonal Degeneration and White Matter Neurobiology. Journal of Visualized Experiments, 2016, , .	0.3	19
56	The 3 Rs of Stroke Biology: Radial, Relayed, and Regenerative. Neurotherapeutics, 2016, 13, 348-359.	4.4	64
57	The Specific Requirements of Neural Repair Trials for Stroke. Neurorehabilitation and Neural Repair, 2016, 30, 470-478.	2.9	73
58	Bloodâˆ'brain barrier breakdown and neovascularization processes after stroke and traumatic brain injury. Current Opinion in Neurology, 2015, 28, 556-564.	3.6	238
59	Robust Axonal Regeneration Occurs in the Injured CAST/Ei Mouse CNS. Neuron, 2015, 86, 1215-1227.	8.1	87
60	Molecular disorganization of axons adjacent to human lacunar infarcts. Brain, 2015, 138, 736-745.	7.6	58
61	The axonâ€"glia unit in white matter stroke: Mechanisms of damage and recovery. Brain Research, 2015, 1623, 123-134.	2.2	51
62	Enzymeâ€Responsive Delivery of Multiple Proteins with Spatiotemporal Control. Advanced Materials, 2015, 27, 3620-3625.	21.0	73
63	GDF10 is a signal for axonal sprouting and functional recovery after stroke. Nature Neuroscience, 2015, 18, 1737-1745.	14.8	144
64	Hydrogel Design of Experiments Methodology to Optimize Hydrogel for iPSCâ€NPC Culture. Advanced Healthcare Materials, 2015, 4, 534-539.	7.6	93
65	Intracerebral hemorrhage in mouse models: therapeutic interventions and functional recovery. Metabolic Brain Disease, 2015, 30, 449-459.	2.9	18
66	Stem Cells as an Emerging Paradigm in Stroke 3. Stroke, 2014, 45, 634-639.	2.0	141
67	Astrocytic therapies for neuronal repair in stroke. Neuroscience Letters, 2014, 565, 47-52.	2.1	76
68	Mouse Intracerebral Hemorrhage Models Produce Different Degrees of Initial and Delayed Damage, Axonal Sprouting, and Recovery. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1463-1471.	4.3	39
69	Angiotropism, Pericytic Mimicry and Extravascular Migratory Metastasis in Melanoma: An Alternative to Intravascular Cancer Dissemination. Cancer Microenvironment, 2014, 7, 139-152.	3.1	73
70	Memantine Enhances Recovery From Stroke. Stroke, 2014, 45, 2093-2100.	2.0	106
71	Delivery of iPSâ€NPCs to the Stroke Cavity within a Hyaluronic Acid Matrix Promotes the Differentiation of Transplanted Cells. Advanced Functional Materials, 2014, 24, 7053-7062.	14.9	147
72	Plasticity in the Injured Brain. Neuroscientist, 2014, 20, 15-28.	3.5	90

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73	White Matter Repair in Subcortical Stroke. , 2014, , 257-270.		2
74	Acute Axonal Injury in White Matter Stroke. , 2014, , 521-535.		1
75	The Promise of Neuro-Recovery After Stroke: Introduction. Stroke, 2013, 44, S103-S103.	2.0	10
76	Remodeling of the Axon Initial Segment After Focal Cortical and White Matter Stroke. Stroke, 2013, 44, 182-189.	2.0	97
77	Hyaluronan, neural stem cells and tissue reconstruction after acute ischemic stroke. Biomatter, 2013, 3, .	2.6	59
78	Multimodal Examination of Structural and Functional Remapping in the Mouse Photothrombotic Stroke Model. Journal of Cerebral Blood Flow and Metabolism, 2013, 33, 716-723.	4.3	87
79	Age-Dependent Exacerbation of White Matter Stroke Outcomes. Stroke, 2013, 44, 2579-2586.	2.0	86
80	Molecular medicine and the art of brain repair. Neurology, 2013, 81, 2143-2144.	1.1	0
81	Opinion & Special Articles: A guide from fellowship to faculty. Neurology, 2012, 79, e116-9.	1.1	5
82	Brain Excitability in Stroke. Archives of Neurology, 2012, 69, 161.	4.5	191
83	Not just a rush of blood to the head. Nature Medicine, 2012, 18, 1609-1610.	30.7	17
84	A role for ephrin-A5 in axonal sprouting, recovery, and activity-dependent plasticity after stroke. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2230-9.	7.1	218
85	Getting Neurorehabilitation Right. Neurorehabilitation and Neural Repair, 2012, 26, 923-931.	2.9	473
86	Models That Matter: White Matter Stroke Models. Neurotherapeutics, 2012, 9, 349-358.	4.4	72
87	Animal Models of Neurological Disorders. Neurotherapeutics, 2012, 9, 241-244.	4.4	64
88	Physically Associated Synthetic Hydrogels with Longâ€Term Covalent Stabilization for Cell Culture and Stem Cell Transplantation. Advanced Materials, 2011, 23, 5098-5103.	21.0	48
89	AMPA Receptor-Induced Local Brain-Derived Neurotrophic Factor Signaling Mediates Motor Recovery after Stroke. Journal of Neuroscience, 2011, 31, 3766-3775.	3.6	233
90	Translating the frontiers of brain repair to treatments: Starting not to break the rules. Neurobiology of Disease, 2010, 37, 237-242.	4.4	34

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91	Promoting axonal rewiring to improve outcome after stroke. Neurobiology of Disease, 2010, 37, 259-266.	4.4	213
92	Reducing excessive GABA-mediated tonic inhibition promotes functional recovery after stroke. Nature, 2010, 468, 305-309.	27.8	722
93	An age-related sprouting transcriptome provides molecular control of axonal sprouting after stroke. Nature Neuroscience, 2010, 13, 1496-1504.	14.8	291
94	Molecular mechanisms of neural repair after stroke. , 2010, , 11-22.		6
95	Local Hemodynamics Dictate Long-Term Dendritic Plasticity in Peri-Infarct Cortex. Journal of Neuroscience, 2010, 30, 14116-14126.	3.6	109
96	Targets for Neural Repair Therapies After Stroke. Stroke, 2010, 41, S124-6.	2.0	37
97	Hydrogel Matrix to Support Stem Cell Survival After Brain Transplantation in Stroke. Neurorehabilitation and Neural Repair, 2010, 24, 636-644.	2.9	199
98	Cortical excitability and post-stroke recovery. Biochemical Society Transactions, 2009, 37, 1412-1414.	3.4	26
99	<i>Pten</i>Deletion in Adult Neural Stem/Progenitor Cells Enhances Constitutive Neurogenesis. Journal of Neuroscience, 2009, 29, 1874-1886.	3.6	245
100	Traumatic brain injury results in disparate regions of chondroitin sulfate proteoglycan expression that are temporally limited. Journal of Neuroscience Research, 2009, 87, 2937-2950.	2.9	55
101	Laminar and compartmental regulation of dendritic growth in mature cortex. Nature Neuroscience, 2009, 12, 116-118.	14.8	111
102	A white matter stroke model in the mouse: Axonal damage, progenitor responses and MRI correlates. Journal of Neuroscience Methods, 2009, 180, 261-272.	2.5	107
103	Genomic Profiles of Damage and Protection in Human Intracerebral Hemorrhage. Journal of Cerebral Blood Flow and Metabolism, 2008, 28, 1860-1875.	4.3	67
104	Image-guided endoscopic evacuation of spontaneous intracerebral hemorrhage. World Neurosurgery, 2008, 69, 441-446.	1.3	92
105	Poststroke Neurogenesis: Emerging Principles of Migration and Localization of Immature Neurons. Neuroscientist, 2008, 14, 369-380.	3.5	133
106	Themes and Strategies for Studying the Biology of Stroke Recovery in the Poststroke Epoch. Stroke, 2008, 39, 1380-1388.	2.0	99
107	The impact ofcerebral small vessel disease on cognitive impairment and rehabilitation. , 2008, , 360-375.		2
108	The Response of the Aged Brain to Stroke: Too Much, Too Soon?. Current Neurovascular Research, 2007, 4, 216-227.	1.1	126

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109	WHITE MATTER STROKE MODEL IN THE MOUSE: A UNIQUE METHOD FOR STUDYING LACUNAR INFARCTS.. Journal of Investigative Medicine, 2007, 55, S151.	1.6	0
110	A Neurovascular Niche for Neurogenesis after Stroke. Journal of Neuroscience, 2006, 26, 13007-13016.	3.6	806
111	Neural progenitor implantation restores metabolic deficits in the brain following striatal quinolinic acid lesion. Experimental Neurology, 2006, 197, 465-474.	4.1	43
112	Growth-associated gene and protein expression in the region of axonal sprouting in the aged brain after stroke. Neurobiology of Disease, 2006, 23, 362-373.	4.4	146
113	Cellular and molecular mechanisms of neural repair after stroke: Making waves. Annals of Neurology, 2006, 59, 735-742.	5.3	516
114	A Critical Role of Erythropoietin Receptor in Neurogenesis and Post-Stroke Recovery. Journal of Neuroscience, 2006, 26, 1269-1274.	3.6	382
115	Increased oxidative protein and DNA damage but decreased stress response in the aged brain following experimental stroke. Neurobiology of Disease, 2005, 18, 432-440.	4.4	44
116	Growth-associated gene expression after stroke: evidence for a growth-promoting region in peri-infarct cortex. Experimental Neurology, 2005, 193, 291-311.	4.1	352
117	Rodent models of focal stroke: Size, mechanism, and purpose. NeuroRx, 2005, 2, 396-409.	6.0	597
118	Post-stroke neurogenesis and the neurovascular niche: Newly born neuroblasts localize to peri-infarct cortex in close association with the vascular endothelium. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S214-S214.	4.3	3
119	Metabolic correlates of lesion-specific plasticity: an in vivo imaging study. Brain Research, 2004, 1002, 28-34.	2.2	8
120	Evolution of Diaschisis in a Focal Stroke Model. Stroke, 2004, 35, 758-763.	2.0	114
121	PATTERNS OF GROWTH ASSOCIATED PROTEIN EXPRESSION IN THE BRAIN AFTER STROKE: A WINDOW FOR RECONNECTION IN THE INJURED BRAIN.. Journal of Investigative Medicine, 2004, 52, S154.	1.6	0
122	Plasticity of Cortical Projections after Stroke. Neuroscientist, 2003, 9, 64-75.	3.5	300
123	Tissue Microenvironments within Functional Cortical Subdivisions Adjacent to Focal Stroke. Journal of Cerebral Blood Flow and Metabolism, 2003, 23, 997-1009.	4.3	49
124	Gene expression changes after focal stroke, traumatic brain and spinal cord injuries. Current Opinion in Neurology, 2003, 16, 699-704.	3.6	78
125	Gene expression changes after focal stroke, traumatic brain and spinal cord injuries. Current Opinion in Neurology, 2003, 16, 699-704.	3.6	41
126	New laboratory start-up in the 21st century. Trends in Neurosciences, 2002, 25, 287-288.	8.6	2

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127	Synchronous Neuronal Activity Is a Signal for Axonal Sprouting after Cortical Lesions in the Adult. Journal of Neuroscience, 2002, 22, 6062-6070.	3.6	342
128	New Patterns of Intracortical Projections after Focal Cortical Stroke. Neurobiology of Disease, 2001, 8, 910-922.	4.4	259
129	Respiratory management in acute CNS catastrophies. Neurology, 1999, 52, 214-214.	1.1	0
130	Connectional networks within the orbital and medial prefrontal cortex of macaque monkeys. Journal of Comparative Neurology, 1996, 371, 179-207.	1.6	547
131	Chapter 31 Networks related to the orbital and medial prefrontal cortex; a substrate for emotional behavior?. Progress in Brain Research, 1996, 107, 523-536.	1.4	196
132	Limbic connections of the orbital and medial prefrontal cortex in macaque monkeys. Journal of Comparative Neurology, 1995, 363, 615-641.	1.6	1,110
133	Sensory and premotor connections of the orbital and medial prefrontal cortex of macaque monkeys. Journal of Comparative Neurology, 1995, 363, 642-664.	1.6	642
134	Architectonic subdivision of the orbital and medial prefrontal cortex in the macaque monkey. Journal of Comparative Neurology, 1994, 346, 366-402.	1.6	622
135	Central olfactory connections in the macaque monkey. Journal of Comparative Neurology, 1994, 346, 403-434.	1.6	570
136	A functional anatomical study of unipolar depression. Journal of Neuroscience, 1992, 12, 3628-3641.	3.6	1,178
137	Cellular mechanisms of plasticity after brain lesions. , 0, , 196-210.		0