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	A functional anatomical study of unipolar depression. Journal of Neuroscience, 1992, 12, 3628-3641.	3.6	1,178
2	Limbic connections of the orbital and medial prefrontal cortex in macaque monkeys. Journal of Comparative Neurology, 1995, 363, 615-641.	1.6	1,110
3	A Neurovascular Niche for Neurogenesis after Stroke. Journal of Neuroscience, 2006, 26, 13007-13016.	3.6	806
4	Reducing excessive GABA-mediated tonic inhibition promotes functional recovery after stroke. Nature, 2010, 468, 305-309.	27.8	722
5	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
6	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
7	Architectonic subdivision of the orbital and medial prefrontal cortex in the macaque monkey. Journal of Comparative Neurology, 1994, 346, 366-402.	1.6	622
8	Rodent models of focal stroke: Size, mechanism, and purpose. NeuroRx, 2005, 2, 396-409.	6.0	597
9	Central olfactory connections in the macaque monkey. Journal of Comparative Neurology, 1994, 346, 403-434.	1.6	570
10	Connectional networks within the orbital and medial prefrontal cortex of macaque monkeys. Journal of Comparative Neurology, 1996, 371, 179-207.	1.6	547
11	Cellular and molecular mechanisms of neural repair after stroke: Making waves. Annals of Neurology, 2006, 59, 735-742.	5.3	516
12	Getting Neurorehabilitation Right. Neurorehabilitation and Neural Repair, 2012, 26, 923-931.	2.9	473
13	A Critical Role of Erythropoietin Receptor in Neurogenesis and Post-Stroke Recovery. Journal of Neuroscience, 2006, 26, 1269-1274.	3.6	382
14	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
15	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
16	Plasticity of Cortical Projections after Stroke. Neuroscientist, 2003, 9, 64-75.	3.5	300
17	An age-related sprouting transcriptome provides molecular control of axonal sprouting after stroke. Nature Neuroscience, 2010, 13, 1496-1504.	14.8	291
18	New Patterns of Intracortical Projections after Focal Cortical Stroke. Neurobiology of Disease, 2001, 8, 910-922.	4.4	259

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19	CCR5 Is a Therapeutic Target for Recovery after Stroke and Traumatic Brain Injury. Cell, 2019, 176, 1143-1157.e13.	28.9	249
20	PtenDeletion in Adult Neural Stem/Progenitor Cells Enhances Constitutive Neurogenesis. Journal of Neuroscience, 2009, 29, 1874-1886.	3.6	245
21	Bloodâ^'brain barrier breakdown and neovascularization processes after stroke and traumatic brain injury. Current Opinion in Neurology, 2015, 28, 556-564.	3.6	238
22	Dual-function injectable angiogenic biomaterial for the repair of brain tissue following stroke. Nature Materials, 2018, 17, 642-651.	27.5	235
23	AMPA Receptor-Induced Local Brain-Derived Neurotrophic Factor Signaling Mediates Motor Recovery after Stroke. Journal of Neuroscience, 2011, 31, 3766-3775.	3.6	233
24	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
25	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
26	Promoting axonal rewiring to improve outcome after stroke. Neurobiology of Disease, 2010, 37, 259-266.	4.4	213
27	Hydrogel Matrix to Support Stem Cell Survival After Brain Transplantation in Stroke. Neurorehabilitation and Neural Repair, 2010, 24, 636-644.	2.9	199
28	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
29	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
30	Brain Excitability in Stroke. Archives of Neurology, 2012, 69, 161.	4.5	191
31	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
32	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
33	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
34	Hydrogels with precisely controlled integrin activation dictate vascular patterning andÂpermeability. Nature Materials, 2017, 16, 953-961.	27.5	158
35	Molecular, cellular and functional events in axonal sprouting after stroke. Experimental Neurology, 2017, 287, 384-394.	4.1	150
36	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

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37	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
38	GDF10 is a signal for axonal sprouting and functional recovery after stroke. Nature Neuroscience, 2015, 18, 1737-1745.	14.8	144
39	Stem Cells as an Emerging Paradigm in Stroke 3. Stroke, 2014, 45, 634-639.	2.0	141
40	Moving rehabilitation research forward: Developing consensus statements for rehabilitation and recovery research. International Journal of Stroke, 2016, 11, 454-458.	5.9	137
41	Poststroke Neurogenesis: Emerging Principles of Migration and Localization of Immature Neurons. Neuroscientist, 2008, 14, 369-380.	3.5	133
42	The Response of the Aged Brain to Stroke: Too Much, Too Soon?. Current Neurovascular Research, 2007, 4, 216-227.	1.1	126
43	Evolution of Diaschisis in a Focal Stroke Model. Stroke, 2004, 35, 758-763.	2.0	114
44	Laminar and compartmental regulation of dendritic growth in mature cortex. Nature Neuroscience, 2009, 12, 116-118.	14.8	111
45	Emergent properties of neural repair: elemental biology to therapeutic concepts. Annals of Neurology, 2016, 79, 895-906.	5.3	111
46	Local Hemodynamics Dictate Long-Term Dendritic Plasticity in Peri-Infarct Cortex. Journal of Neuroscience, 2010, 30, 14116-14126.	3.6	109
47	Alzheimer's Diseaseâ€“Related Dementias Summit 2016: National research priorities. Neurology, 2017, 89, 2381-2391.	1.1	109
48	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
49	Translational Stroke Research. Stroke, 2017, 48, 2632-2637.	2.0	108
50	Encouraging an excitable brain state: mechanisms of brain repair in stroke. Nature Reviews Neuroscience, 2021, 22, 38-53.	10.2	108
51	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
52	Memantine Enhances Recovery From Stroke. Stroke, 2014, 45, 2093-2100.	2.0	106
53	Themes and Strategies for Studying the Biology of Stroke Recovery in the Poststroke Epoch. Stroke, 2008, 39, 1380-1388.	2.0	99
54	Remodeling of the Axon Initial Segment After Focal Cortical and White Matter Stroke. Stroke, 2013, 44, 182-189.	2.0	97

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55	Hydrogels for brain repair after stroke: an emerging treatment option. Current Opinion in Biotechnology, 2016, 40, 155-163.	6.6	96
56	CREB controls cortical circuit plasticity and functional recovery after stroke. Nature Communications, 2018, 9, 2250.	12.8	96
57	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
58	Hydrogel Design of Experiments Methodology to Optimize Hydrogel for iPSCâ€NPC Culture. Advanced Healthcare Materials, 2015, 4, 534-539.	7.6	93
59	Image-guided endoscopic evacuation of spontaneous intracerebral hemorrhage. World Neurosurgery, 2008, 69, 441-446.	1.3	92
60	Plasticity in the Injured Brain. Neuroscientist, 2014, 20, 15-28.	3.5	90
61	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
62	Robust Axonal Regeneration Occurs in the Injured CAST/Ei Mouse CNS. Neuron, 2015, 86, 1215-1227.	8.1	87
63	Age-Dependent Exacerbation of White Matter Stroke Outcomes. Stroke, 2013, 44, 2579-2586.	2.0	86
64	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
65	Gene expression changes after focal stroke, traumatic brain and spinal cord injuries. Current Opinion in Neurology, 2003, 16, 699-704.	3.6	78
66	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
67	Astrocytic therapies for neuronal repair in stroke. Neuroscience Letters, 2014, 565, 47-52.	2.1	76
68	Angiotropism, Pericytic Mimicry and Extravascular Migratory Metastasis in Melanoma: An Alternative to Intravascular Cancer Dissemination. Cancer Microenvironment, 2014, 7, 139-152.	3.1	73
69	Enzymeâ€Responsive Delivery of Multiple Proteins with Spatiotemporal Control. Advanced Materials, 2015, 27, 3620-3625.	21.0	73
70	The Specific Requirements of Neural Repair Trials for Stroke. Neurorehabilitation and Neural Repair, 2016, 30, 470-478.	2.9	73
71	Models That Matter: White Matter Stroke Models. Neurotherapeutics, 2012, 9, 349-358.	4.4	72
72	Genomic Profiles of Damage and Protection in Human Intracerebral Hemorrhage. Journal of Cerebral Blood Flow and Metabolism, 2008, 28, 1860-1875.	4.3	67

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73	Animal Models of Neurological Disorders. Neurotherapeutics, 2012, 9, 241-244.	4.4	64
74	The 3 Rs of Stroke Biology: Radial, Relayed, and Regenerative. Neurotherapeutics, 2016, 13, 348-359.	4.4	64
75	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
76	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
77	Hyaluronan, neural stem cells and tissue reconstruction after acute ischemic stroke. Biomatter, 2013, 3, .	2.6	59
78	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
79	Molecular disorganization of axons adjacent to human lacunar infarcts. Brain, 2015, 138, 736-745.	7.6	58
80	Click by Click Microporous Annealed Particle (MAP) Scaffolds. Advanced Healthcare Materials, 2020, 9, e1901391.	7.6	58
81	Injectable and Spatially Patterned Microporous Annealed Particle (MAP) Hydrogels for Tissue Repair Applications. Advanced Science, 2018, 5, 1801046.	11.2	56
82	Glia in neurodegeneration: Drivers of disease or along for the ride?. Neurobiology of Disease, 2020, 142, 104957.	4.4	56
83	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
84	The axonâ€“glia unit in white matter stroke: Mechanisms of damage and recovery. Brain Research, 2015, 1623, 123-134.	2.2	51
85	Tissue Microenvironments within Functional Cortical Subdivisions Adjacent to Focal Stroke. Journal of Cerebral Blood Flow and Metabolism, 2003, 23, 997-1009.	4.3	49
86	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
87	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
88	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
89	Neural progenitor implantation restores metabolic deficits in the brain following striatal quinolinic acid lesion. Experimental Neurology, 2006, 197, 465-474.	4.1	43
90	Gene expression changes after focal stroke, traumatic brain and spinal cord injuries. Current Opinion in Neurology, 2003, 16, 699-704.	3.6	41

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91	Moving Rehabilitation Research Forward: Developing Consensus Statements for Rehabilitation and Recovery Research. Neurorehabilitation and Neural Repair, 2017, 31, 694-698.	2.9	40
92	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
93	Targets for Neural Repair Therapies After Stroke. Stroke, 2010, 41, S124-6.	2.0	37
94	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
95	Translating the frontiers of brain repair to treatments: Starting not to break the rules. Neurobiology of Disease, 2010, 37, 237-242.	4.4	34
96	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
97	Customized Brain Cells for Stroke Patients Using Pluripotent Stem Cells. Stroke, 2018, 49, 1091-1098.	2.0	29
98	White Matter Stroke Induces a Unique Oligo-Astrocyte Niche That Inhibits Recovery. Journal of Neuroscience, 2019, 39, 9343-9359.	3.6	29
99	Cortical excitability and post-stroke recovery. Biochemical Society Transactions, 2009, 37, 1412-1414.	3.4	26
100	Stroke in CNS white matter: Models and mechanisms. Neuroscience Letters, 2018, 684, 193-199.	2.1	24
101	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
102	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
103	Pharmacological blockers of CCR5 and CXCR4 improve recovery after traumatic brain injury. Experimental Neurology, 2021, 338, 113604.	4.1	22
104	Neuronal Network Topology Indicates Distinct Recovery Processes after Stroke. Cerebral Cortex, 2020, 30, 6363-6375.	2.9	20
105	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
106	Intracerebral hemorrhage in mouse models: therapeutic interventions and functional recovery. Metabolic Brain Disease, 2015, 30, 449-459.	2.9	18
107	Not just a rush of blood to the head. Nature Medicine, 2012, 18, 1609-1610.	30.7	17
108	Blowing up Neural Repair for Stroke Recovery. Stroke, 2020, 51, 3169-3173.	2.0	17

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109	Heart and Brain Pericytes Exhibit a Pro-Fibrotic Response After Vascular Injury. Circulation Research, 2021, 129, e141-e143.	4.5	15
110	Astrocytes Can Adopt Endothelial Cell Fates in a p53-Dependent Manner. Molecular Neurobiology, 2017, 54, 4584-4596.	4.0	14
111	Regeneration Enhances Metastasis: A Novel Role for Neurovascular Signaling in Promoting Melanoma Brain Metastasis. Frontiers in Neuroscience, 2019, 13, 297.	2.8	14
112	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
113	Particle Hydrogels Decrease Cerebral Atrophy and Attenuate Astrocyte and Microglia/Macrophage Reactivity after Stroke. Advanced Therapeutics, 2022, 5, .	3.2	12
114	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
115	The Promise of Neuro-Recovery After Stroke: Introduction. Stroke, 2013, 44, S103-S103.	2.0	10
116	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
117	Metabolic correlates of lesion-specific plasticity: an in vivo imaging study. Brain Research, 2004, 1002, 28-34.	2.2	8
118	Phosphodiesterase 10A Inhibition Leads to Brain Region-Specific Recovery Based on Stroke Type. Translational Stroke Research, 2021, 12, 303-315.	4.2	8
119	Reliable generation of glial enriched progenitors from human fibroblast-derived iPSCs. Stem Cell Research, 2021, 55, 102458.	0.7	8
120	Molecular mechanisms of neural repair after stroke. , 2010, , 11-22.		6
121	Opinion & Special Articles: A guide from fellowship to faculty. Neurology, 2012, 79, e116-9.	1.1	5
122	Learning and Stroke Recovery: Parallelism of Biological Substrates. Seminars in Neurology, 2021, 41, 147-156.	1.4	4
123	Injection of Hydrogel Biomaterial Scaffolds to The Brain After Stroke. Journal of Visualized Experiments, 2020, , .	0.3	4
124	PRIMED2 Preclinical Evidence Scoring Tool to Assess Readiness for Translation of Neuroprotection Therapies. Translational Stroke Research, 2021, , 1.	4.2	3
125	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
126	New laboratory start-up in the 21st century. Trends in Neurosciences, 2002, 25, 287-288.	8.6	2

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127	The impact ofcerebral small vessel disease on cognitive impairment and rehabilitation. , 2008, , 360-375.		2
128	White Matter Repair in Subcortical Stroke. , 2014, , 257-270.		2
129	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
130	Acute Axonal Injury in White Matter Stroke. , 2014, , 521-535.		1
131	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
132	WHITE MATTER STROKE MODEL IN THE MOUSE: A UNIQUE METHOD FOR STUDYING LACUNAR INFARCTS.. Journal of Investigative Medicine, 2007, 55, S151.	1.6	0
133	Molecular medicine and the art of brain repair. Neurology, 2013, 81, 2143-2144.	1.1	0
134	Cellular mechanisms of plasticity after brain lesions. , 0, , 196-210.		0
135	Mechanisms of Stroke Recovery. , 2017, , 171-174.		0
136	Respiratory management in acute CNS catastrophies. Neurology, 1999, 52, 214-214.	1.1	0
137	Injection of Hydrogel Biomaterial Scaffolds to The Brain After Stroke. Journal of Visualized Experiments, 2020, , .	0.3	0