Karim Fouad

List of Publications by Year
in descending order

102 papers	7,464 citations	50170 46 h-index	54797 84 g-index
107 all docs	107 docs citations	107 times ranked	5965 citing authors

#	Article	IF	Citations
1	Combining Schwann Cell Bridges and Olfactory-Ensheathing Glia Grafts with Chondroitinase Promotes Locomotor Recovery after Complete Transection of the Spinal Cord. Journal of Neuroscience, 2005, 25, 1169-1178.	1.7	435
2	Recovery of motoneuron and locomotor function after spinal cord injury depends on constitutive activity in 5-HT2C receptors. Nature Medicine, 2010, 16, 694-700.	15.2	353
3	Nogo-A antibody improves regeneration and locomotion of spinal cord-injured rats. Annals of Neurology, 2005, 58, 706-719.	2.8	307
4	Locomotor Recovery in Spinal Cord-Injured Rats Treated with an Antibody Neutralizing the Myelin-Associated Neurite Growth Inhibitor Nogo-A. Journal of Neuroscience, 2001, 21, 3665-3673.	1.7	302
5	Efficient testing of motor function in spinal cord injured rats. Brain Research, 2000, 883, 165-177.	1.1	275
6	Spontaneous locomotor recovery in spinal cord injured rats is accompanied by anatomical plasticity of reticulospinal fibers. European Journal of Neuroscience, 2006, 23, 1988-1996.	1.2	237
7	Cervical sprouting of corticospinal fibers after thoracic spinal cord injury accompanies shifts in evoked motor responses. Current Biology, 2001, 11, 1766-1770.	1.8	227
8	Reaching training in rats with spinal cord injury promotes plasticity and task specific recovery. Brain, 2007, 130, 2993-3003.	3.7	223
9	Restoration of sensorimotor functions after spinal cord injury. Brain, 2014, 137, 654-667.	3.7	218
10	Neuronal coordination of arm and leg movements during human locomotion. European Journal of Neuroscience, 2001, 14, 1906-1914.	1.2	210
11	BDNF promotes connections of corticospinal neurons onto spared descending interneurons in spinal cord injured rats. Brain, 2006, 129, 1534-1545.	3.7	210
12	Reorganization of descending motor tracts in the rat spinal cord. European Journal of Neuroscience, 2002, 16, 1761-1771.	1.2	172
13	Functional switch between motor tracts in the presence of the mAb IN-1 in the adult rat. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 6929-6934.	3.3	145
14	Ganglioside GM1 induces phosphorylation of mutant huntingtin and restores normal motor behavior in Huntington disease mice. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3528-3533.	3.3	140
15	Electrical stimulation of intact peripheral sensory axons in rats promotes outgrowth of their central projections. Experimental Neurology, 2008, 210, 238-247.	2.0	136
16	Pericytes impair capillary blood flow and motor function after chronic spinal cord injury. Nature Medicine, 2017, 23, 733-741.	15.2	134
17	BDNF: The career of a multifaceted neurotrophin in spinal cord injury. Experimental Neurology, 2012, 238, 254-264.	2.0	132
18	Red nucleus projections to distinct motor neuron pools in the rat spinal cord. Journal of Comparative Neurology, 2002, 448, 349-359.	0.9	126

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19	Regenerating corticospinal fibers in the Marmoset (Callitrix jacchus) after spinal cord lesion and treatment with the anti-Nogo-A antibody IN-1. European Journal of Neuroscience, 2004, 20, 2479-2482.	1.2	125
20	Enhancement and Resetting of Locomotor Activity by Muscle Afferentsa. Annals of the New York Academy of Sciences, 1998, 860, 203-215.	1.8	124
21	Motor Axonal Regeneration after Partial and Complete Spinal Cord Transection. Journal of Neuroscience, 2012, 32, 8208-8218.	1.7	122
22	Plasticity After Spinal Cord Injury: Relevance to Recovery and Approaches to Facilitate It. Neurotherapeutics, 2011, 8, 283-293.	2.1	118
23	Treadmill training in incomplete spinal cord injured rats. Behavioural Brain Research, 2000, 115, 107-113.	1.2	117
24	Restoring walking after spinal cord injury. Progress in Neurobiology, 2004, 73, 107-126.	2.8	115
25	Rehabilitative training and plasticity following spinal cord injury. Experimental Neurology, 2012, 235, 91-99.	2.0	113
26	A Systematic Review of Directly Applied Biologic Therapies for Acute Spinal Cord Injury. Journal of Neurotrauma, 2011, 28, 1589-1610.	1.7	104
27	Compensatory Sprouting and Impulse Rerouting after Unilateral Pyramidal Tract Lesion in Neonatal Rats. Journal of Neuroscience, 2000, 20, 6561-6569.	1.7	97
28	Improving axonal growth and functional recovery after experimental spinal cord injury by neutralizing myelin associated inhibitors. Brain Research Reviews, 2001, 36, 204-212.	9.1	96
29	The unilateral 6-OHDA rat model of Parkinson's disease revisited: an electromyographic and behavioural analysis. European Journal of Neuroscience, 2005, 22, 735-744.	1.2	92
30	Behavioral and Electromyographic Characterization of Mice Lacking EphA4 Receptors. Journal of Neurophysiology, 2006, 96, 642-651.	0.9	86
31	The neuroanatomicalâ€"functional paradox in spinal cord injury. Nature Reviews Neurology, 2021, 17, 53-62.	4.9	82
32	Training of Walking Skills Overground and on the Treadmill: Case Series on Individuals With Incomplete Spinal Cord Injury. Physical Therapy, 2009, 89, 601-611.	1.1	81
33	Fecal transplant prevents gut dysbiosis and anxiety-like behaviour after spinal cord injury in rats. PLoS ONE, 2020, 15, e0226128.	1.1	77
34	The role of cAMP and its downstream targets in neurite growth in the adult nervous system. Neuroscience Letters, 2017, 652, 56-63.	1.0	75
35	Eliciting inflammation enables successful rehabilitative training in chronic spinal cord injury. Brain, 2018, 141, 1946-1962.	3.7	74
36	Object recognition memory in zebrafish. Behavioural Brain Research, 2016, 296, 199-210.	1.2	72

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37	Neuronal Populations Capable of Regeneration following a Combined Treatment in Rats with Spinal Cord Transection. Journal of Neurotrauma, 2007, 24, 1667-1673.	1.7	69
38	Adaptive changes in the injured spinal cord and their role in promoting functional recovery. Neurological Research, 2008, 30, 17-27.	0.6	65
39	Training-induced plasticity in rats with cervical spinal cord injury: Effects and side effects. Behavioural Brain Research, 2010, 214, 323-331.	1.2	64
40	Spinal cord injury and plasticity: Opportunities and challenges. Brain Research Bulletin, 2011, 84, 337-342.	1.4	60
41	Advantages of delaying the onset of rehabilitative reaching training in rats with incomplete spinal cord injury. European Journal of Neuroscience, 2009, 29, 641-651.	1.2	55
42	Transplantation and repair: Combined cell implantation and chondroitinase delivery prevents deterioration of bladder function in rats with complete spinal cord injury. Spinal Cord, 2009, 47, 727-732.	0.9	52
43	Synergistic effects of BDNF and rehabilitative training on recovery after cervical spinal cord injury. Behavioural Brain Research, 2013, 239, 31-42.	1.2	52
44	Long-Term Viral Brain-Derived Neurotrophic Factor Delivery Promotes Spasticity in Rats with a Cervical Spinal Cord Hemisection. Frontiers in Neurology, 2013, 4, 187.	1.1	52
45	Plasticity beyond peri-infarct cortex: Spinal up regulation of structural plasticity, neurotrophins, and inflammatory cytokines during recovery from cortical stroke. Experimental Neurology, 2014, 252, 47-56.	2.0	51
46	Diseaseâ€modifying effects of ganglioside GM1 in Huntington's disease models. EMBO Molecular Medicine, 2017, 9, 1537-1557.	3.3	51
47	Anatomical correlates of recovery in single pellet reaching in spinal cord injured rats. Experimental Neurology, 2013, 247, 605-614.	2.0	50
48	Developing a data sharing community for spinal cord injury research. Experimental Neurology, 2017, 295, 135-143.	2.0	48
49	Task specific adaptations in rat locomotion: Runway versus horizontal ladder. Behavioural Brain Research, 2006, 168, 272-279.	1.2	45
50	Functional testing in animal models of spinal cord injury: not as straight forward as one would think. Frontiers in Integrative Neuroscience, 2013, 7, 85.	1.0	45
51	Electromyographic activity associated with spontaneous functional recovery after spinal cord injury in rats. European Journal of Neuroscience, 2002, 16, 249-258.	1.2	44
52	Locomotor-related V3 interneurons initiate and coordinate muscles spasms after spinal cord injury. Journal of Neurophysiology, 2019, 121, 1352-1367.	0.9	41
53	Depolarization and electrical stimulation enhance in vitro and in vivo sensory axon growth after spinal cord injury. Experimental Neurology, 2018, 300, 247-258.	2.0	39
54	Electrical Stimulation as a Tool to Promote Plasticity of the Injured Spinal Cord. Journal of Neurotrauma, 2020, 37, 1933-1953.	1.7	37

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55	Rehabilitative Training in Animal Models of Spinal Cord Injury. Journal of Neurotrauma, 2018, 35, 1970-1985.	1.7	36
56	Adaptations in the Walking Pattern of Spinal Cord Injured Rats. Journal of Neurotrauma, 2006, 23, 897-907.	1.7	35
57	Effects of extensor muscle afferents on the timing of locomotor activity during walking in adult rats. Brain Research, 1997, 749, 320-328.	1.1	34
58	Enhancing Spinal Plasticity Amplifies the Benefits of Rehabilitative Training and Improves Recovery from Stroke. Journal of Neuroscience, 2017, 37, 10983-10997.	1.7	33
59	Following Spinal Cord Injury Transected Reticulospinal Tract Axons Develop New Collateral Inputs to Spinal Interneurons in Parallel with Locomotor Recovery. Neural Plasticity, 2017, 2017, 1-15.	1.0	33
60	Extrasynaptic Î±₅GABA_A receptors on proprioceptive afferents produce a tonic depolarization that modulates sodium channel function in the rat spinal cord. Journal of Neurophysiology, 2018, 120, 2953-2974.	0.9	32
61	Beyond the lesion site: minocycline augments inflammation and anxiety-like behavior following SCI in rats through action on the gut microbiota. Journal of Neuroinflammation, 2021, 18, 144.	3.1	28
62	Secondary Damage in the Spinal Cord after Motor Cortex Injury in Rats. Journal of Neurotrauma, 2010, 27, 1387-1397.	1.7	27
63	Synthesis, transport, and metabolism of serotonin formed from exogenously applied 5-HTP after spinal cord injury in rats. Journal of Neurophysiology, 2014, 111, 145-163.	0.9	27
64	Decrease of mRNA Editing after Spinal Cord Injury is Caused by Down-regulation of ADAR2 that is Triggered by Inflammatory Response. Scientific Reports, 2015, 5, 12615.	1.6	27
65	FAIR SCI Ahead: The Evolution of the Open Data Commons for Pre-Clinical Spinal Cord Injury Research. Journal of Neurotrauma, 2020, 37, 831-838.	1.7	27
66	Improved single pellet grasping using automated ad libitum full-time training robot. Behavioural Brain Research, 2015, 281, 137-148.	1.2	26
67	Vector-induced NT-3 expression in rats promotes collateral growth of injured corticospinal tract axons far rostral to a spinal cord injury. Neuroscience, 2014, 272, 65-75.	1.1	25
68	Single pellet grasping following cervical spinal cord injury in adult rat using an automated full-time training robot. Behavioural Brain Research, 2016, 299, 59-71.	1.2	22
69	A motorized pellet dispenser to deliver high intensity training of the single pellet reaching and grasping task in rats. Behavioural Brain Research, 2018, 336, 67-76.	1.2	22
70	Single-session cortical electrical stimulation enhances the efficacy of rehabilitative motor training after spinal cord injury in rats. Experimental Neurology, 2020, 324, 113136.	2.0	21
71	Self-directed rehabilitation training intensity thresholds for efficient recovery of skilled forelimb function in rats with cervical spinal cord injury. Experimental Neurology, 2021, 339, 113543.	2.0	21
72	Reticulospinal plasticity after cervical spinal cord injury in the rat involves withdrawal of projections below the injury. Experimental Neurology, 2013, 247, 241-249.	2.0	20

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73	Inhibiting cortical protein kinase A in spinal cord injured rats enhances efficacy of rehabilitative training. Experimental Neurology, 2016, 283, 365-374.	2.0	20
74	5-HT_{1D}receptors inhibit the monosynaptic stretch reflex by modulating C-fiber activity. Journal of Neurophysiology, 2019, 121, 1591-1608.	0.9	19
75	FGF-2-induced functional improvement from neonatal motor cortex injury via corticospinal projections. Experimental Brain Research, 2008, 185, 453-460.	0.7	18
76	A TrkB Antibody Agonist Promotes Plasticity after Cervical Spinal Cord Injury in Adult Rats. Journal of Neurotrauma, 2021, 38, 1338-1348.	1.7	18
77	Dose and Chemical Modification Considerations for Continuous Cyclic AMP Analog Delivery to the Injured CNS. Journal of Neurotrauma, 2009, 26, 733-740.	1.7	17
78	Comment on â€œRestoring Voluntary Control of Locomotion After Paralyzing Spinal Cord Injuryâ€ Science, 2012, 338, 328-328.	6.0	17
79	Cortical electrical stimulation in female rats with a cervical spinal cord injury to promote axonal outgrowth. Journal of Neuroscience Research, 2018, 96, 852-862.	1.3	17
80	New Mechanistic Insights, Novel Treatment Paradigms, and Clinical Progress in Cerebrovascular Diseases. Frontiers in Aging Neuroscience, 2021, 13, 623751.	1.7	17
81	Challenges of animal models in SCI research: Effects of pre-injury task-specific training in adult rats before lesion. Behavioural Brain Research, 2015, 291, 26-35.	1.2	14
82	Training following unilateral cervical spinal cord injury in rats affects the contralesional forelimb. Neuroscience Letters, 2013, 539, 77-81.	1.0	13
83	Larger cortical motor maps after seizures. European Journal of Neuroscience, 2011, 34, 615-621.	1.2	11
84	Response to Comment on â€œRestoring Voluntary Control of Locomotion After Paralyzing Spinal Cord Injuryâ€ Science, 2012, 338, 328-328.	6.0	11
85	Be careful what you train for. Nature Neuroscience, 2009, 12, 1077-1079.	7.1	10
86	Loss of Npn1 from motor neurons causes postnatal deficits independent from Sema3A signaling. Developmental Biology, 2015, 399, 2-14.	0.9	10
87	Adult skin-derived precursor Schwann cell grafts form growths in the injured spinal cord of Fischer rats. Biomedical Materials (Bristol), 2018, 13, 034101.	1.7	10
88	Promoting FAIR Data Through Community-driven Agile Design: the Open Data Commons for Spinal Cord Injury (odc-sci.org). Neuroinformatics, 2022, 20, 203-219.	1.5	10
89	Inducing inflammation following subacute spinal cord injury in female rats: A double-edged sword to promote motor recovery. Brain, Behavior, and Immunity, 2021, 93, 55-65.	2.0	9
90	Automation of training and testing motor and related tasks in pre-clinical behavioural and rehabilitative neuroscience. Experimental Neurology, 2021, 340, 113647.	2.0	8

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91	Decerebration by global ischemic stroke in rats. Journal of Neuroscience Methods, 1998, 84, 131-137.	1.3	7
92	New technique for drug application to the spinal cord of walking mice. Journal of Neuroscience Methods, 2008, 171, 39-47.	1.3	6
93	A Simple Analogy for Nervous System Plasticity After Injury. Exercise and Sport Sciences Reviews, 2015, 43, 100-106.	1.6	6
94	A Critical Period for Postnatal Adaptive Plasticity in a Model of Motor Axon Miswiring. PLoS ONE, 2015, 10, e0123643.	1.1	6
95	What Makes a Successful Donor? Fecal Transplant from Anxious-Like Rats Does Not Prevent Spinal Cord Injury-Induced Dysbiosis. Biology, 2021, 10, 254.	1.3	5
96	Cyclosporine-immunosuppression does not affect survival of transplanted skin-derived precursor Schwann cells in the injured rat spinal cord. Neuroscience Letters, 2017, 658, 67-72.	1.0	4
97	Metabolomic Fingerprint of Behavioral Changes in Response to Full-Spectrum Cannabis Extracts. Frontiers in Pharmacology, 2022, 13, 831052.	1.6	2
98	Rehabilitative training improves skilled forelimb motor function after cervical unilateral contusion spinal cord injury in rats. Behavioural Brain Research, 2022, 422, 113731.	1.2	2
99	Lipopolysaccharide can induce errors in anatomical measures of neuronal plasticity by increasing tracing efficacy. Neuroscience Letters, 2013, 556, 181-185.	1.0	1
100	Repairing the injured spinal cord: sprouting versus regeneration. Is this a realistic match?. Neural Regeneration Research, 2014, 9, 462.	1.6	1
101	Myelin-associated axon growth inhibitors. , 0, , 339-348.		0
102	Reply to Comment on â€˜Adult skin-derived precursor Schwann cell grafts form growths in the injured spinal cord of Fischer ratsâ€™. Biomedical Materials (Bristol), 2018, 13, 048002.	1.7	0