Martin Marsala

List of Publications by Year
in descending order

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122 papers	9,017 citations	71102 41 h-index	43889 91 g-index
124 all docs	124 docs citations	124 times ranked	11650 citing authors

#	Article	IF	Citations
1	Probing sporadic and familial Alzheimerâ€™s disease using induced pluripotent stem cells. Nature, 2012, 482, 216-220.	27.8	1,069
2	Long-Distance Growth and Connectivity of Neural Stem Cells after Severe Spinal Cord Injury. Cell, 2012, 150, 1264-1273.	28.9	760
3	Down-regulation of the potassium-chloride cotransporter KCC2 contributes to spasticity after spinal cord injury. Nature Medicine, 2010, 16, 302-307.	30.7	487
4	Biomimetic 3D-printed scaffolds for spinal cord injury repair. Nature Medicine, 2019, 25, 263-269.	30.7	460
5	Gain of Toxicity from ALS/FTD-Linked Repeat Expansions in C9ORF72 Is Alleviated by Antisense Oligonucleotides Targeting GGGGCC-Containing RNAs. Neuron, 2016, 90, 535-550.	8.1	437
6	ALS-linked TDP-43 mutations produce aberrant RNA splicing and adult-onset motor neuron disease without aggregation or loss of nuclear TDP-43. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E736-45.	7.1	370
7	Activation of p38 mitogenâ€activated protein kinase in spinal microglia is a critical link in inflammationâ€induced spinal pain processing. Journal of Neurochemistry, 2003, 86, 1534-1544.	3.9	354
8	Cell-Surface Marker Signatures for the Isolation of Neural Stem Cells, Glia and Neurons Derived from Human Pluripotent Stem Cells. PLoS ONE, 2011, 6, e17540.	2.5	317
9	Transcriptional Signature and Memory Retention of Human-Induced Pluripotent Stem Cells. PLoS ONE, 2009, 4, e7076.	2.5	276
10	A First-in-Human, Phase I Study of Neural Stem Cell Transplantation for Chronic Spinal Cord Injury. Cell Stem Cell, 2018, 22, 941-950.e6.	11.1	243
11	ALS/FTD-Linked Mutation in FUS Suppresses Intra-axonal Protein Synthesis and Drives Disease Without Nuclear Loss-of-Function of FUS. Neuron, 2018, 100, 816-830.e7.	8.1	185
12	Effect of Proximal Arterial Perfusion Pressure on Function, Spinal Cord Blood Flow, and Histopathologic Changes After Increasing Intervals of Aortic Occlusion in the Rat. Stroke, 1996, 27, 1850-1858.	2.0	164
13	Elevated PGC-1Î± Activity Sustains Mitochondrial Biogenesis and Muscle Function without Extending Survival in a Mouse Model of Inherited ALS. Cell Metabolism, 2012, 15, 778-786.	16.2	158
14	The spinal loop dialysis catheter: characterization of use in the unanesthetized rat. Journal of Neuroscience Methods, 1995, 62, 43-53.	2.5	148
15	The Rhebâ€“mTOR Pathway Is Upregulated in Reactive Astrocytes of the Injured Spinal Cord. Journal of Neuroscience, 2009, 29, 1093-1104.	3.6	136
16	Characterization of time course of spinal amino acids, citrulline and PGE2 release after carrageenan/kaolin-induced knee joint inflammation: a chronic microdialysis study. Pain, 1996, 67, 345-354.	4.2	131
17	Localization of N-type Ca 2+ channels in the rat spinal cord following chronic constrictive nerve injury. Experimental Brain Research, 2002, 147, 456-463.	1.5	131
18	Mutant dynein (Loa) triggers proprioceptive axon loss that extends survival only in the SOD1 ALS model with highest motor neuron death. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 12599-12604.	7.1	99

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19	Macrophage Migration Inhibitory Factor as a Chaperone Inhibiting Accumulation of Misfolded SOD1. Neuron, 2015, 86, 218-232.	8.1	98
20	Human Neural Stem Cell Replacement Therapy for Amyotrophic Lateral Sclerosis by Spinal Transplantation. PLoS ONE, 2012, 7, e42614.	2.5	95
21	A Transgenic Minipig Model of Huntington's Disease. Journal of Huntington's Disease, 2013, 2, 47-68.	1.9	94
22	Transient Spinal Ischemia in Rat: Characterization of Spinal Cord Blood Flow, Extracellular Amino Acid Release, and Concurrent Histopathological Damage. Journal of Cerebral Blood Flow and Metabolism, 1994, 14, 604-614.	4.3	93
23	Panmyelic Epidural Cooling Protects against Ischemic Spinal Cord Damage. Journal of Surgical Research, 1993, 55, 21-31.	1.6	89
24	Analgesic and Neurotoxic Effects of Intrathecal Corticosteroids in Rats. Anesthesiology, 1994, 81, 1198-1205.	2.5	83
25	Spinal subpial delivery of AAV9 enables widespread gene silencing and blocks motoneuron degeneration in ALS. Nature Medicine, 2020, 26, 118-130.	30.7	80
26	Functional recovery in rats with ischemic paraplegia after spinal grafting of human spinal stem cells. Neuroscience, 2007, 147, 546-560.	2.3	78
27	Amelioration of motor/sensory dysfunction and spasticity in a rat model of acute lumbar spinal cord injury by human neural stem cell transplantation. Stem Cell Research and Therapy, 2013, 4, 57.	5.5	78
28	Changes in spinal GDNF, BDNF, and NTâ€3 expression after transient spinal cord ischemia in the rat. Journal of Neuroscience Research, 2003, 74, 552-561.	2.9	76
29	Large animal and primate models of spinal cord injury for the testing of novel therapies. Experimental Neurology, 2015, 269, 154-168.	4.1	75
30	Chronic Spinal Compression Model in Minipigs: A Systematic Behavioral, Qualitative, and Quantitative Neuropathological Study. Journal of Neurotrauma, 2012, 29, 499-513.	3.4	74
31	Transient Spinal Ischemia in the Rat: Characterization of Behavioral and Histopathological Consequences as a Function of the Duration of Aortic Occlusion. Journal of Cerebral Blood Flow and Metabolism, 1994, 14, 526-535.	4.3	73
32	REVIEW ARTILCE: Cell therapy and stem cells in animal models of motor neuron disorders. European Journal of Neuroscience, 2007, 26, 1721-1737.	2.6	65
33	Overriding FUS autoregulation in mice triggers gain-of-toxic dysfunctions in RNA metabolism and autophagy-lysosome axis. ELife, 2019, 8, .	6.0	65
34	Neuraxial Morphine May Trigger Transient Motor Dysfunction after a Noninjurious Interval of Spinal Cord Ischemia. Anesthesiology, 2003, 98, 862-870.	2.5	63
35	Development of GABA-sensitive spasticity and rigidity in rats after transient spinal cord ischemia: A qualitative and quantitative electrophysiological and histopathological study. Neuroscience, 2006, 141, 1569-1583.	2.3	63
36	Mediators of ischemic preconditioning identified by microarray analysis of rat spinal cord. Experimental Neurology, 2004, 185, 81-96.	4.1	60

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37	Stem cells: comprehensive treatments for amyotrophic lateral sclerosis in conjunction with growth factor delivery. Growth Factors, 2009, 27, 133-140.	1.7	55
38	The ROCK Inhibitor Y-27632 Improves Recovery of Human Embryonic Stem Cells after Fluorescence-Activated Cell Sorting with Multiple Cell Surface Markers. PLoS ONE, 2010, 5, e12148.	2.5	55
39	Analysis of Dosing Regimen and Reproducibility of Intraspinal Grafting of Human Spinal Stem Cells in Immunosuppressed Minipigs. Cell Transplantation, 2010, 19, 1103-1122.	2.5	52
40	Selective Formation of Porous Pt Nanorods for Highly Electrochemically Efficient Neural Electrode Interfaces. Nano Letters, 2019, 19, 6244-6254.	9.1	51
41	Epidural perfusion cooling protection against protracted spinal cord ischemia in rabbits. Journal of Neurosurgery, 1993, 79, 736-741.	1.6	47
42	Spinal implantation of hNT neurons and neuronal precursors: graft survival and functional effects in rats with ischemic spastic paraplegia. European Journal of Neuroscience, 2004, 20, 2401-2414.	2.6	47
43	The Î±5 subunit containing GABAA receptors contribute to chronic pain. Pain, 2016, 157, 613-626.	4.2	46
44	Pig models of neurodegenerative disorders: Utilization in cell replacementâ€based preclinical safety and efficacy studies. Journal of Comparative Neurology, 2014, 522, 2784-2801.	1.6	43
45	Survival of syngeneic and allogeneic iPSCâ€“derived neural precursors after spinal grafting in minipigs. Science Translational Medicine, 2018, 10, .	12.4	42
46	Localization of NADPHd-exhibiting neurons in the spinal cord of the rabbit. , 1999, 406, 263-284.		41
47	Technique of selective spinal cord cooling in rat: methodology and application. Journal of Neuroscience Methods, 1997, 74, 97-106.	2.5	40
48	Model of neuropathic intermittent claudication in the rat: methodology and application. Journal of Neuroscience Methods, 2001, 104, 191-198.	2.5	39
49	Electroporation for direct spinal gene transfer in rats. Neuroscience Letters, 2002, 317, 1-4.	2.1	38
50	Spinal Neurokinin NK1 Receptor Down-Regulation and Antinociception: Effects of Spinal NK1 Receptor Antisense Oligonucleotides and NK1 Receptor Occupancy. Journal of Neurochemistry, 2002, 70, 688-698.	3.9	38
51	The sustained expression of Cas9 targeting toxic RNAs reverses disease phenotypes in mouse models of myotonic dystrophy type 1. Nature Biomedical Engineering, 2021, 5, 157-168.	22.5	37
52	The hydroxyl radical scavenger Nicaraven inhibits glutamate release after spinal injury in rats. NeuroReport, 1998, 9, 1655-1659.	1.2	36
53	Spinal Astrocyte Glutamate Receptor 1 Overexpression after Ischemic Insult Facilitates Behavioral Signs of Spasticity and Rigidity. Journal of Neuroscience, 2007, 27, 11179-11191.	3.6	36
54	Neural Stem Cell Dissemination after Grafting to CNS Injury Sites. Cell, 2014, 156, 388-389.	28.9	35

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55	Potent spinal parenchymal AAV9-mediated gene delivery by subpial injection in adult rats and pigs. Molecular Therapy - Methods and Clinical Development, 2016, 3, 16046.	4.1	34
56	In Vivo Gene Knockdown in Rat Dorsal Root Ganglia Mediated by Self-Complementary Adeno-Associated Virus Serotype 5 Following Intrathecal Delivery. PLoS ONE, 2012, 7, e32581.	2.5	33
57	Human mutant huntingtin disrupts vocal learning in transgenic songbirds. Nature Neuroscience, 2015, 18, 1617-1622.	14.8	32
58	A scalable solution for isolating human multipotent clinical-grade neural stem cells from ES precursors. Stem Cell Research and Therapy, 2019, 10, 83.	5.5	32
59	Characterization of spinal HSP72 induction and development of ischemic tolerance after spinal ischemia in rats. Experimental Neurology, 2004, 185, 97-108.	4.1	30
60	Region-specific cell grafting into cervical and lumbar spinal cord in rat: a qualitative and quantitative stereological study. Experimental Neurology, 2004, 190, 122-132.	4.1	30
61	Optimization of Immunosuppressive Therapy for Spinal Grafting of Human Spinal Stem Cells in a Rat Model of ALS. Cell Transplantation, 2011, 20, 1153-1161.	2.5	30
62	Measurement of Peripheral Muscle Resistance in Rats with Chronic Ischemia-Induced Paraplegia or Morphine-Induced Rigidity Using a Semi-Automated Computer-Controlled Muscle Resistance Meter. Journal of Neurotrauma, 2005, 22, 1348-1361.	3.4	29
63	Morphologic and Volumetric Studies of the Meibomian Glands in Elderly Human Eyelids. Cornea, 2007, 26, 610-614.	1.7	28
64	Chromatin establishes an immature version of neuronal protocadherin selection during the naive-to-primed conversion of pluripotent stem cells. Nature Genetics, 2019, 51, 1691-1701.	21.4	27
65	Hypothermia prevents biphasic glutamate release and corresponding neuronal degeneration after transient spinal cord ischemia in the rat. Cellular and Molecular Neurobiology, 1999, 19, 199-208.	3.3	25
66	Effective long-term immunosuppression in rats by subcutaneously implanted sustained-release tacrolimus pellet: Effect on spinally grafted human neural precursor survival. Experimental Neurology, 2013, 248, 85-99.	4.1	24
67	Neuronâ€targeted caveolinâ€1 improves neuromuscular function and extends survival in SOD1 ^{G93A} mice. FASEB Journal, 2019, 33, 7545-7554.	0.5	24
68	Thoracic 9 Spinal Transection-Induced Model of Muscle Spasticity in the Rat: A Systematic Electrophysiological and Histopathological Characterization. PLoS ONE, 2015, 10, e0144642.	2.5	22
69	A Review of Stem Cell Therapy for Spinal Cord Injury: Large Animal Models and the Frontier in Humans. World Neurosurgery, 2017, 98, 438-443.	1.3	22
70	The Effects of OP-1206 Î±-CD on Walking Dysfunction in the Rat Neuropathic Intermittent Claudication Model. Anesthesia and Analgesia, 2002, 94, 1537-1541.	2.2	21
71	Spinal amino acid release and repeated withdrawal in spinal morphine tolerant rats. British Journal of Pharmacology, 2003, 138, 689-697.	5.4	21
72	Intravenous Infusion of Dexmedetomidine Can Prevent the Degeneration of Spinal Ventral Neurons Induced by Intrathecal Morphine After a Noninjurious Interval of Spinal Cord Ischemia in Rats. Anesthesia and Analgesia, 2007, 105, 1086-1093.	2.2	21

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73	Knee joint inflammation attenuates spinal FOS expression after unilateral paw formalin injection in rat. Neuroscience Letters, 1997, 225, 89-92.	2.1	20
74	A Single Dose of Atorvastatin Applied Acutely after Spinal Cord Injury Suppresses Inflammation, Apoptosis, and Promotes Axon Outgrowth, Which Might Be Essential for Favorable Functional Outcome. International Journal of Molecular Sciences, 2018, 19, 1106.	4.1	20
75	The Activation of Spinal N-Methyl-d-Aspartate Receptors May Contribute to Degeneration of Spinal Motor Neurons Induced by Neuraxial Morphine After a Noninjurious Interval of Spinal Cord Ischemia. Anesthesia and Analgesia, 2005, 100, 327-334.	2.2	18
76	A robust vitronectin-derived peptide for the scalable long-term expansion and neuronal differentiation of human pluripotent stem cell (hPSC)-derived neural progenitor cells (hNPCs). Acta Biomaterialia, 2017, 48, 120-130.	8.3	18
77	Spinal adenosine agonist reduces c-fos and astrocyte activation in dorsal horn of rats with adjuvant-induced arthritis. Neuroscience Letters, 2003, 340, 119-122.	2.1	17
78	Suppression of stretch reflex activity after spinal or systemic treatment with AMPA receptor antagonist NGX424 in rats with developed baclofen tolerance. British Journal of Pharmacology, 2010, 161, 976-985.	5.4	17
79	Development of baclofen tolerance in a rat model of chronic spasticity and rigidity. Neuroscience Letters, 2006, 403, 195-200.	2.1	16
80	Combinational Spinal GAD65 Gene Delivery and Systemic GABA-Mimetic Treatment for Modulation of Spasticity. PLoS ONE, 2012, 7, e30561.	2.5	16
81	Transient spinal cord ischemia in rat: the time course of spinal FOS protein expression and the effect of intraischemic hypothermia (27 degrees C). Cellular and Molecular Neurobiology, 2000, 20, 351-365.	3.3	15
82	Time course of brain neuronal degeneration and heat shock protein (72) expression following neck tourniquet-induced cerebral ischemia in the rat. Cellular and Molecular Neurobiology, 2000, 20, 367-381.	3.3	14
83	Spinal heat shock protein (70) expression: effect of spinal ischemia, hyperthermia (42 Â°C)/hypothermia (27 Â°C), NMDA receptor activation and potassium evoked depolarization on the induction. Neurochemistry International, 2004, 44, 53-64.	3.8	14
84	The Effect of a Spinal Cord Hemisection on Changes in Nitric Oxide Synthase Pools in the Site of Injury and in Regions Located Far Away from the Injured Site. Cellular and Molecular Neurobiology, 2006, 26, 1365-1383.	3.3	14
85	Surface N-glycoproteome patterns reveal key proteins of neuronal differentiation. Journal of Proteomics, 2016, 132, 13-20.	2.4	14
86	Neural stem cells in models of spinal cord injury. Experimental Neurology, 2014, 261, 494-500.	4.1	13
87	Signaling proteins in spinal parenchyma and dorsal root ganglion in rat with spinal injury-induced spasticity. Journal of Proteomics, 2013, 91, 41-57.	2.4	12
88	The regional changes of the catalytic NOS activity in the spinal cord of the rabbit after repeated sublethal ischemia. Neurochemical Research, 2001, 26, 833-839.	3.3	11
89	Effects of OP-1206 Î±-CD on walking dysfunction in the rat neuropathic intermittent claudication model: comparison with nifedipine, ticlopidine and cilostazol. Prostaglandins and Other Lipid Mediators, 2003, 71, 253-263.	1.9	11
90	Immunosurveillance and immunoediting in MMTV-PyMT-induced mammary oncogenesis. OncoImmunology, 2017, 6, e1268310.	4.6	11

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91	Neuroprotective Effect of Graded Postischemic Reoxygenation in Spinal Cord Ischemia in the Rabbit. Brain Research Bulletin, 1997, 43, 457-465.	3.0	10
92	Effect of midthoracic spinal cord constriction on catalytic nitric oxide synthase activity in the white matter columns of rabbit. Neurochemical Research, 2000, 25, 1139-1148.	3.3	9
93	172â€ƒA Phase I, Open-Label, Single-Site, Safety Study of Human Spinal Cord-Derived Neural Stem Cell Transplantation for the Treatment of Chronic Spinal Cord Injury. Neurosurgery, 2016, 63, 168-169.	1.1	9
94	Neuroprotective effect of local hypothermia in a computerâ€‘controlled compression model in minipig: Correlation of tissue sparing along the rostroâ€‘caudal axis with neurological outcome. Experimental and Therapeutic Medicine, 2017, 15, 254-270.	1.8	9
95	Spinal parenchymal occupation by neural stem cells after subpial delivery in adult immunodeficient rats. Stem Cells Translational Medicine, 2020, 9, 177-188.	3.3	9
96	The effect of N-nitro-L-arginine and aminoguanidine treatment on changes in constitutive and inducible nitric oxide synthases in the spinal cord after sciatic nerve transection. International Journal of Molecular Medicine, 2008, 21, 413-21.	4.0	9
97	Spinal cord transection modifies neuronal nitric oxide synthase expression in medullar reticular nuclei and in the spinal cord and increases parvalbumin immunopositivity in motoneurons below the site of injury in experimental rabbits. Acta Histochemica, 2012, 114, 518-524.	1.8	8
98	Repeated Baclofen treatment ameliorates motor dysfunction, suppresses reflex activity and decreases the expression of signaling proteins in reticular nuclei and lumbar motoneurons after spinal trauma in rats. Acta Histochemica, 2014, 116, 344-353.	1.8	8
99	Ischemia-Induced delayed-onset paraplegia is accompanied by an unusual form of synaptic degeneration in the lumbosacral segments: An experimental light and electron microscopic study in dogs. Microscopy Research and Technique, 1994, 28, 226-242.	2.2	7
100	Intrathecal magnesium sulfate attenuates algogenic behavior and spinal amino acids release after kainic acid receptor activation in rats. Neuroscience Letters, 2001, 301, 115-118.	2.1	7
101	Baclofen or nNOS inhibitor affect molecular and behavioral alterations evoked by traumatic spinal cord injury in rat spinal cord. Spine Journal, 2015, 15, 1366-1378.	1.3	7
102	Postischemic hyperoxia enhances vulnerability in the rabbit spinal cord ischemic model. Restorative Neurology and Neuroscience, 1992, 3, 283-291.	0.7	6
103	Proteome-wide analysis of neural stem cell differentiation to facilitate transition to cell replacement therapies. Expert Review of Proteomics, 2015, 12, 83-95.	3.0	6
104	Subpial Adeno-associated Virus 9 (AAV9) Vector Delivery in Adult Mice. Journal of Visualized Experiments, 2017, , .	0.3	6
105	Synaptogenesis and amino acid release from long term embryonic rat spinal cord neuronal culture using tissue culture inserts. Journal of Neuroscience Methods, 2005, 141, 21-27.	2.5	5
106	Hypothermic treatment after computerâ€‘controlled compression in minipig: A preliminary report on the effect of epiduralï¿½vs.ï¿½direct spinal cord cooling. Experimental and Therapeutic Medicine, 2018, 16, 4927-4942.	1.8	5
107	Subpial AAV Delivery for Spinal Parenchymal Gene Regulation in Adult Mammals. Methods in Molecular Biology, 2019, 1950, 209-233.	0.9	5
108	Precision spinal gene delivery-induced functional switch in nociceptive neurons reverses neuropathic pain. Molecular Therapy, 2022, 30, 2722-2745.	8.2	5

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109	Changes in spontaneous unit activity in lumbar spinal cord after reversible aortic occlusion in the rat. Neuroscience Letters, 1996, 207, 45-48.	2.1	3
110	Single-Cell Laser-Capture Microdissection and RNA Amplification. , 2004, 99, 215-223.		2
111	The Effect of Cauda Equina Constriction on Nitric Oxide Synthase Activity. Neurochemical Research, 2004, 29, 429-439.	3.3	2
112	Low-speed subcellular fractionation method for determining noxious stimulus-evoked spinal neurokinin-1 receptor internalization. Journal of Neuroscience Methods, 2007, 161, 23-31.	2.5	2
113	Development of AMPA receptor and GABA B receptor-sensitive spinal hyper-reflexia after spinal air embolism in rat: A systematic neurological, electrophysiological and qualitative histopathological study. Experimental Neurology, 2012, 237, 26-35.	4.1	2
114	Time-dependent, bidirectional, anti- and pro-spinal hyper-reflexia and muscle spasticity effect after chronic spinal glycine transporter 2 (GlyT2) oligonucleotide-induced downregulation. Experimental Neurology, 2018, 305, 66-75.	4.1	2
115	Targeted mass spectrometry for monitoring of neural differentiation. Biology Open, 2021, 10, .	1.2	2
116	Sciatic nerve stimulation increases the degree of histopathological damage in lumbosacral segments after short lasting spinal cord ischemia in rabbit. Restorative Neurology and Neuroscience, 1995, 7, 145-150.	0.7	0
117	Effect of intrathecal pretreatment with taurine on neurological outcome after transient spinal cord ischemia in the rat. Journal of Anesthesia, 1998, 12, 215-218.	1.7	0
118	Release of glutamate during opioid exposure. Pain Forum, 1999, 8, 22-24.	1.1	0
119	Therapeutic Window after Spinal Cord Trauma Is Longer than after Spinal Cord Ischemia. Anesthesiology, 2000, 92, 281-281.	2.5	0
120	Bloodâ€“Brain Barrier Changes in Global and Focal Cerebral Ischemia. , 2004, , 385-394.		0
121	L-655,708 â˜†. , 2018, , .		0
122	Is Innervation of the Neuromuscular Junction at the Diaphragm Modulated by sGC/cGMP Signaling?. Frontiers in Physiology, 2020, 11, 700.	2.8	0