

Effect of epidural stimulation of the lumbosacral spinal
standing, and assisted stepping after motor complete pa

Lancet, The

377, 1938-1947

DOI: [10.1016/s0140-6736\(11\)60547-3](https://doi.org/10.1016/s0140-6736(11)60547-3)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Human Locomotor Circuits Conform. <i>Science</i> , 2011, 334, 912-913.	6.0	74
2	Spinal cord injury: time to move. <i>Lancet, The</i> , 2011, 377, 1896-1898.	6.3	35
3	Technological advances: a help or a hindrance. <i>British Journal of Neuroscience Nursing</i> , 2011, 7, 519-519.	0.1	1
4	Respiratory Motor Control Disrupted by Spinal Cord Injury: Mechanisms, Evaluation, and Restoration. <i>Translational Stroke Research</i> , 2011, 2, 463-473.	2.3	40
5	Epidural stimulation of the spinal cord in spinal cord injury: current status and future challenges. <i>Expert Review of Neurotherapeutics</i> , 2011, 11, 1351-1353.	1.4	94
6	A small step forward for spinal cord injury patients?. <i>Nature Reviews Neurology</i> , 2011, 7, 422-423.	4.9	1
8	Impact of Behavioral Control on the Processing of Nociceptive Stimulation. <i>Frontiers in Physiology</i> , 2012, 3, 262.	1.3	37
9	Repetitive spinal electromagnetic stimulation opens a window of synaptic plasticity in damaged spinal cord: role of NMDA receptors. <i>Journal of Neurophysiology</i> , 2012, 107, 3027-3039.	0.9	35
10	Maladaptive spinal plasticity opposes spinal learning and recovery in spinal cord injury. <i>Frontiers in Physiology</i> , 2012, 3, 399.	1.3	68
11	Accommodation of the Spinal Cat to a Tripping Perturbation. <i>Frontiers in Physiology</i> , 2012, 3, 112.	1.3	18
12	Vibration Elicits Involuntary, Step-Like Behavior in Individuals With Spinal Cord Injury. <i>Neurorehabilitation and Neural Repair</i> , 2012, 26, 861-869.	1.4	20
13	Editorial: Multicenter clinical research networks for traumatic spinal cord injury: a critical pathway to discovery. <i>Journal of Neurosurgery: Spine</i> , 2012, 17, 4-5.	0.9	2
14	Quantitative and sensitive assessment of neurophysiological status after human spinal cord injury. <i>Journal of Neurosurgery: Spine</i> , 2012, 17, 77-86.	0.9	24
15	Neural activity generated in the neural placode and nerve roots in the neonate with spina bifida. <i>Journal of Neurosurgery: Pediatrics</i> , 2012, 9, 452-456.	0.8	5
16	Should Body Weightâ€“Supported Treadmill Training and Robotic-Assistive Steppers for Locomotor Training Trot Back to the Starting Gate?. <i>Neurorehabilitation and Neural Repair</i> , 2012, 26, 308-317.	1.4	174
17	Self-paced brainâ€“computer interface control of ambulation in a virtual reality environment. <i>Journal of Neural Engineering</i> , 2012, 9, 056016.	1.8	44
18	Response to Comment on â€œRestoring Voluntary Control of Locomotion After Paralyzing Spinal Cord Injuryâ€•. <i>Science</i> , 2012, 338, 328-328.	6.0	11
19	Somatosensory control of balance during locomotion in decerebrated cat. <i>Journal of Neurophysiology</i> , 2012, 107, 2072-2082.	0.9	70

#	ARTICLE	IF	CITATIONS
20	Coapplication of noisy patterned electrical stimuli and NMDA plus serotonin facilitates fictive locomotion in the rat spinal cord. <i>Journal of Neurophysiology</i> , 2012, 108, 2977-2990.	0.9	15
21	Active Books: The Design of an Implantable Stimulator That Minimizes Cable Count Using Integrated Circuits Very Close to Electrodes. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2012, 6, 216-227.	2.7	32
22	Biomaterials combined with cell therapy for treatment of spinal cord injury. <i>Regenerative Medicine</i> , 2012, 7, 207-224.	0.8	55
23	Neural interfaces for the brain and spinal cordâ€”restoring motor function. <i>Nature Reviews Neurology</i> , 2012, 8, 690-699.	4.9	213
24	Spinal Cord Injury: Harnessing Spike Timing to Induce Plastic Change. <i>Current Biology</i> , 2012, 22, R1039-R1040.	1.8	1
25	Motor Recovery after Spinal Cord Injury Enhanced by Strengthening Corticospinal Synaptic Transmission. <i>Current Biology</i> , 2012, 22, 2355-2361.	1.8	181
26	The rocky road to translation in spinal cord repair. <i>Annals of Neurology</i> , 2012, 72, 491-501.	2.8	56
28	Erythropoietin effect on sensorimotor recovery after contusive spinal cord injury: An electrophysiological study in rats. <i>Neuroscience</i> , 2012, 219, 290-301.	1.1	21
29	Longitudinal Performance of a Surgically Implanted Neuroprosthesis for Lower-Extremity Exercise, Standing, and Transfers After Spinal Cord Injury. <i>Archives of Physical Medicine and Rehabilitation</i> , 2012, 93, 896-904.	0.5	55
30	The Authors Respond: Balance and Ambulation Improvements in Individuals With Chronic Incomplete Spinal Cord Injury Using Locomotor Training-Based Rehabilitation. <i>Archives of Physical Medicine and Rehabilitation</i> , 2012, 93, 919-921.	0.5	9
31	Engineering therapies in the CNS: What works and what can be translated. <i>Neuroscience Letters</i> , 2012, 519, 147-154.	1.0	13
32	Spinal cord clinical trials and the role for bioengineering. <i>Neuroscience Letters</i> , 2012, 519, 93-102.	1.0	21
33	Interfacing the neural system to restore deficient functions: From theoretical studies to neuroprosthesis design. <i>Comptes Rendus - Biologies</i> , 2012, 335, 1-8.	0.1	4
34	Systems neurobiology of restorative neurology and future directions for repair of the damaged motor systems. <i>Clinical Neurology and Neurosurgery</i> , 2012, 114, 515-523.	0.6	31
35	Neuromodulation of lower limb motor control in restorative neurology. <i>Clinical Neurology and Neurosurgery</i> , 2012, 114, 489-497.	0.6	74
36	Forelimb EMG-based trigger to control an electronic spinal bridge to enable hindlimb stepping after a complete spinal cord lesion in rats. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2012, 9, 38.	2.4	25
37	Functional Electrical Stimulation in Spinal Cord Injury: From Theory to Practice. <i>Topics in Spinal Cord Injury Rehabilitation</i> , 2012, 18, 28-33.	0.8	77
38	Controlled Unilateral Isometric Force Generated by Epidural Spinal Cord Stimulation in the Rat Hindlimb. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2012, 20, 549-556.	2.7	3

#	ARTICLE	IF	CITATIONS
40	Versatile robotic interface to evaluate, enable and train locomotion and balance after neuromotor disorders. <i>Nature Medicine</i> , 2012, 18, 1142-1147.	15.2	94
41	Effect of percutaneous stimulation at different spinal levels on the activation of sensory and motor roots. <i>Experimental Brain Research</i> , 2012, 223, 281-289.	0.7	83
42	Glial Tumor Necrosis Factor Alpha (TNF α) Generates Metaplastic Inhibition of Spinal Learning. <i>PLoS ONE</i> , 2012, 7, e39751.	1.1	49
43	Extracellular Neural Microstimulation May Activate Much Larger Regions than Expected by Simulations: A Combined Experimental and Modeling Study. <i>PLoS ONE</i> , 2012, 7, e41324.	1.1	17
44	From Spinal Central Pattern Generators to Cortical Network: Integrated BCI for Walking Rehabilitation. <i>Neural Plasticity</i> , 2012, 2012, 1-13.	1.0	91
45	Enabling techniques for in vitro studies on mammalian spinal locomotor mechanisms. <i>Frontiers in Bioscience - Landmark</i> , 2012, 17, 2158.	3.0	19
47	Spinal cord injury clinical trials. , 0, , 322-333.		0
48	FGF1 containing biodegradable device with peripheral nerve grafts induces corticospinal tract regeneration and motor evoked potentials after spinal cord resection. <i>Restorative Neurology and Neuroscience</i> , 2012, 30, 91-102.	0.4	14
49	Restoring Voluntary Control of Locomotion after Paralyzing Spinal Cord Injury. <i>Science</i> , 2012, 336, 1182-1185.	6.0	701
50	Acute Treatment Options for Spinal Cord Injury. <i>Current Treatment Options in Neurology</i> , 2012, 14, 175-187.	0.7	42
51	Tail nerve electrical stimulation combined with scar ablation and neural transplantation promotes locomotor recovery in rats with chronically contused spinal cord. <i>Brain Research</i> , 2012, 1456, 22-35.	1.1	7
52	Transcutaneous electrical stimulation of the spinal cord: A noninvasive tool for the activation of stepping pattern generators in humans. <i>Human Physiology</i> , 2012, 38, 158-167.	0.1	45
53	Spinal Cord Stimulation: A Review. <i>Current Pain and Headache Reports</i> , 2012, 16, 35-42.	1.3	58
54	Operation of a brain-computer interface walking simulator for individuals with spinal cord injury. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2013, 10, 77.	2.4	68
55	The physiological basis of neurorehabilitation - locomotor training after spinal cord injury. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2013, 10, 5.	2.4	110
56	Motor primitives and synergies in the spinal cord and after injury—the current state of play. <i>Annals of the New York Academy of Sciences</i> , 2013, 1279, 114-126.	1.8	50
57	Elevated MMP-9 in the Lumbar Cord Early after Thoracic Spinal Cord Injury Impedes Motor Relearning in Mice. <i>Journal of Neuroscience</i> , 2013, 33, 13101-13111.	1.7	62
58	Experimental parameter identification of a multi-scale musculoskeletal model controlled by electrical stimulation: application to patients with spinal cord injury. <i>Medical and Biological Engineering and Computing</i> , 2013, 51, 617-631.	1.6	8

#	ARTICLE	IF	CITATIONS
59	Personalized Neuroprosthetics. <i>Science Translational Medicine</i> , 2013, 5, 210rv2.	5.8	141
60	Translating the Brain-Machine Interface. <i>Science Translational Medicine</i> , 2013, 5, 210ps17.	5.8	103
61	Removing sensory input disrupts spinal locomotor activity in the early postnatal period. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2013, 199, 1105-1116.	0.7	5
62	Using in vivo spinally-evoked potentials to assess functional connectivity along the spinal axis. , 2013, , .		3
63	Electrically Evoked Compound Action Potentials Recorded From the Sheep Spinal Cord. <i>Neuromodulation</i> , 2013, 16, 295-303.	0.4	53
64	A 1-Wire¦ communication interface between a control hub and locally powered epidural stimulators. , 2013, , .		0
65	Challenges and Opportunities in Restoring Function After Paralysis. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 602-609.	2.5	38
66	Pilot Study: Elevated Circulating Levels of the Proinflammatory Cytokine Macrophage Migration Inhibitory Factor in Patients With Chronic Spinal Cord Injury. <i>Archives of Physical Medicine and Rehabilitation</i> , 2013, 94, 1498-1507.	0.5	57
67	Multisystem Neuroprosthetic Training Improves Bladder Function After Severe Spinal Cord Injury. <i>Journal of Urology</i> , 2013, 189, 747-753.	0.2	28
68	Field distribution of epidural electrical stimulation. <i>Computers in Biology and Medicine</i> , 2013, 43, 1673-1679.	3.9	2
69	The Next Frontier in Composite Tissue Allotransplantation. <i>CNS Neuroscience and Therapeutics</i> , 2013, 19, 1-4.	1.9	15
70	Changes in the Spinal Segmental Motor Output for Stepping during Development from Infant to Adult. <i>Journal of Neuroscience</i> , 2013, 33, 3025-3036.	1.7	74
71	Modulation of spinal neuronal excitability by spinal direct currents and locomotion after spinal cord injury. <i>Clinical Neurophysiology</i> , 2013, 124, 1187-1195.	0.7	90
72	Development of a multi-electrode array for spinal cord epidural stimulation to facilitate stepping and standing after a complete spinal cord injury in adult rats. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2013, 10, 2.	2.4	94
73	Guest Editorial: From neuroscience to neuro-rehabilitation: transferring basic neuroscientific principles from laboratory to bedside. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2013, 10, 6.	2.4	3
74	Lack of non-voluntary stepping responses in Parkinson’s disease. <i>Neuroscience</i> , 2013, 235, 96-108.	1.1	19
75	A Computational Model for Epidural Electrical Stimulation of Spinal Sensorimotor Circuits. <i>Journal of Neuroscience</i> , 2013, 33, 19326-19340.	1.7	320
76	FES Control of Isometric Forces in the Rat Hindlimb Using Many Muscles. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 1422-1430.	2.5	26

#	ARTICLE	IF	CITATIONS
77	Neuroprosthetic technology for individuals with spinal cord injury. <i>Journal of Spinal Cord Medicine</i> , 2013, 36, 258-272.	0.7	64
78	Effects of transcutaneous spinal cord stimulation on voluntary locomotor activity in an incomplete spinal cord injured individual. <i>Biomedizinische Technik</i> , 2013, 58 Suppl 1, .	0.9	51
79	Toward Metabolic Robotics: Insights from Modeling Embodied Cognition in a Biomechatronic Symbiont. <i>Artificial Life</i> , 2013, 19, 299-315.	1.0	6
80	Emerging therapies for acute traumatic spinal cord injury. <i>Cmaj</i> , 2013, 185, 485-492.	0.9	158
81	Deep Brain Stimulation of the Midbrain Locomotor Region Improves Paretic Hindlimb Function After Spinal Cord Injury in Rats. <i>Science Translational Medicine</i> , 2013, 5, 208ra146.	5.8	92
82	Neurophysiology of Robot-Mediated Training and Therapy: A Perspective for Future Use in Clinical Populations. <i>Frontiers in Neurology</i> , 2013, 4, 184.	1.1	82
83	Rat locomotor spinal circuits in vitro are activated by electrical stimulation with noisy waveforms sampled from human gait. <i>Physiological Reports</i> , 2013, 1, e00025.	0.7	7
84	A real-time platform for studying the modulatory capacity of epidural stimulation after spinal cord injury. , 2013, , .		0
85	Neurophysiological characteristics of human leg muscle action potentials evoked by transcutaneous magnetic stimulation of the spine. <i>Bioelectromagnetics</i> , 2013, 34, 200-210.	0.9	22
86	A dedicated electrode driving ASIC for epidural spinal cord stimulation in rats. , 2013, , .		4
87	Therapeutic intraspinal microstimulation improves forelimb function after cervical contusion injury. <i>Journal of Neural Engineering</i> , 2013, 10, 044001.	1.8	66
88	STAT3 promotes corticospinal remodelling and functional recovery after spinal cord injury. <i>EMBO Reports</i> , 2013, 14, 931-937.	2.0	80
89	Sub-threshold spinal cord stimulation facilitates spontaneous motor activity in spinal rats. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2013, 10, 108.	2.4	60
90	Role of Neurotrophins in Spinal Plasticity and Locomotion. <i>Current Pharmaceutical Design</i> , 2013, 19, 4509-4516.	0.9	14
91	Cervicothoracic Multisegmental Transpinal Evoked Potentials in Humans. <i>PLoS ONE</i> , 2013, 8, e76940.	1.1	19
92	Large Animal Model for Development of Functional Restoration Paradigms Using Epidural and Intraspinal Stimulation. <i>PLoS ONE</i> , 2013, 8, e81443.	1.1	35
93	Challenges and opportunities of sensory plasticity after SCI. <i>Frontiers in Physiology</i> , 2013, 4, 231.	1.3	4
94	Mechanisms of rhythm generation of the human lumbar spinal cord in response to tonic stimulation without and with step-related sensory feedback. <i>Biomedizinische Technik</i> , 2013, 58 Suppl 1, .	0.9	15

#	ARTICLE	IF	CITATIONS
95	Molecular and Cellular Changes in the Lumbar Spinal Cord following Thoracic Injury: Regulation by Treadmill Locomotor Training. PLoS ONE, 2014, 9, e88215.	1.1	30
96	Nanomolar Oxytocin Synergizes with Weak Electrical Afferent Stimulation to Activate the Locomotor CPG of the Rat Spinal Cord In Vitro. PLoS ONE, 2014, 9, e92967.	1.1	15
97	Initiation of Bladder Voiding with Epidural Stimulation in Paralyzed, Step Trained Rats. PLoS ONE, 2014, 9, e108184.	1.1	56
98	Functional electrical stimulation in neurorehabilitation. , 2014, , 120-134.		1
99	Metaplasticity and behavior: how training and inflammation affect plastic potential within the spinal cord and recovery after injury. Frontiers in Neural Circuits, 2014, 8, 100.	1.4	49
100	Therapeutic intraspinal stimulation to generate activity and promote long-term recovery. Frontiers in Neuroscience, 2014, 8, 21.	1.4	44
101	Closed-loop control of spinal cord stimulation to restore hand function after paralysis. Frontiers in Neuroscience, 2014, 8, 87.	1.4	81
102	Restoration of motor function following spinal cord injury via optimal control of intraspinal microstimulation: toward a next generation closed-loop neural prosthesis. Frontiers in Neuroscience, 2014, 8, 296.	1.4	43
103	Motor cortex electrical stimulation augments sprouting of the corticospinal tract and promotes recovery of motor function. Frontiers in Integrative Neuroscience, 2014, 8, 51.	1.0	83
104	A role for neuromorphic processors in therapeutic nervous system stimulation. Frontiers in Systems Neuroscience, 2014, 8, 187.	1.2	3
105	Exercise awareness and barriers after spinal cord injury. World Journal of Orthopedics, 2014, 5, 158.	0.8	51
106	Spinal plasticity underlying the recovery of locomotion after injury. , 2014, , 166-195.		3
109	Assessment of sensorimotor function after experimental spinal cord injury and repair. , 0, , 529-540.		0
111	Upper-limb muscle responses to epidural, subdural and intraspinal stimulation of the cervical spinal cord. Journal of Neural Engineering, 2014, 11, 016005.	1.8	57
112	Similarities and differences in cervical and thoracolumbar multisegmental motor responses and the combined use for testing spinal circuitries. Journal of Spinal Cord Medicine, 2014, 37, 401-413.	0.7	4
113	Cerebrospinal fluid levels of glial cell-derived neurotrophic factor correlate with spinal cord stimulation frequency in patients with neuropathic pain: a preliminary report. Spinal Cord, 2014, 52, S8-S10.	0.9	26
114	Effect of Combined Treadmill Training and Magnetic Stimulation on Spasticity and Gait Impairments after Cervical Spinal Cord Injury. Journal of Neurotrauma, 2014, 31, 1088-1106.	1.7	39
115	Clinical online recommendation with subgroup rank feedback. , 2014, , .		3

#	ARTICLE	IF	CITATIONS
116	Towards Effective Non-Invasive Brain-Computer Interfaces Dedicated to Gait Rehabilitation Systems. <i>Brain Sciences</i> , 2014, 4, 1-48.	1.1	38
117	Spinal Cord Injury and Regeneration: A Critical Evaluation of Current and Future Therapeutic Strategies. , 2014, , 593-638.		1
119	Enabling motor control in chronic spinal cord injury: found in translation. <i>Brain</i> , 2014, 137, 1277-1280.	3.7	2
120	Survival of Neural Stem Cell Grafts in the Lesioned Spinal Cord Is Enhanced by a Combination of Treadmill Locomotor Training via Insulin-Like Growth Factor-1 Signaling. <i>Journal of Neuroscience</i> , 2014, 34, 12788-12800.	1.7	61
121	The Appropriate Use of Neurostimulation: New and Evolving Neurostimulation Therapies and Applicable Treatment for Chronic Pain and Selected Disease States. <i>Neuromodulation</i> , 2014, 17, 599-615.	0.4	100
122	Marginalized Identities of Senseâ€™Makers: Reframing Engineering Student Retention. <i>Journal of Engineering Education</i> , 2014, 103, 8-44.	1.9	69
123	Novel Multi-System Functional Gains via Task Specific Training in Spinal Cord Injured Male Rats. <i>Journal of Neurotrauma</i> , 2014, 31, 819-833.	1.7	58
124	New strategies for the repair of spinal cord injury. <i>Science Bulletin</i> , 2014, 59, 4041-4049.	1.7	2
125	A multichannel corticospinal interface IC for intracortical spike recording and distinct muscle pattern activation via intraspinal microstimulation. , 2014, , .		7
126	Lumbosacral Spinal Cord Epidural Stimulation Enables Recovery of Voluntary Movement After Complete Motor Spinal Cord Injury. <i>Neurosurgery</i> , 2014, 75, N14-N15.	0.6	6
127	Closed-loop neuromodulation of spinal sensorimotor circuits controls refined locomotion after complete spinal cord injury. <i>Science Translational Medicine</i> , 2014, 6, 255ra133.	5.8	170
128	Spinal Cord Injury Medicine and Rehabilitation. <i>Seminars in Neurology</i> , 2014, 34, 524-533.	0.5	15
129	Complete Spinal Cord Injury. <i>Neurosurgery</i> , 2014, 75, N23-N24.	0.6	1
130	The Regulatory Network of Proneural Glioma in Tumor Progression. <i>Neurosurgery</i> , 2014, 75, N15-N16.	0.6	0
132	Spinal cord stimulation for gait impairment in spinocerebellar ataxia 7. <i>Journal of Neurology</i> , 2014, 261, 570-574.	1.8	4
133	Interaction of transcutaneous spinal stimulation and transcranial magnetic stimulation in human leg muscles. <i>Experimental Brain Research</i> , 2014, 232, 1717-1728.	0.7	43
134	Restoration of sensorimotor functions after spinal cord injury. <i>Brain</i> , 2014, 137, 654-667.	3.7	218
135	Corticospinal neuroprostheses to restore locomotion after spinal cord injury. <i>Neuroscience Research</i> , 2014, 78, 21-29.	1.0	47

#	ARTICLE	IF	CITATIONS
136	Neuromodulation of the Lumbar Spinal Locomotor Circuit. <i>Neurosurgery Clinics of North America</i> , 2014, 25, 15-23.	0.8	20
137	A Survey on CPG-Inspired Control Models and System Implementation. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2014, 25, 441-456.	7.2	221
138	Restoring function after spinal cord injury: towards clinical translation of experimental strategies. <i>Lancet Neurology</i> , The, 2014, 13, 1241-1256.	4.9	236
139	Neuromodulation of evoked muscle potentials induced by epidural spinal-cord stimulation in paralyzed individuals. <i>Journal of Neurophysiology</i> , 2014, 111, 1088-1099.	0.9	136
140	Volitional Walking via Upper Limb Muscle-Controlled Stimulation of the Lumbar Locomotor Center in Man. <i>Journal of Neuroscience</i> , 2014, 34, 11131-11142.	1.7	34
141	Direct and crossed effects of somatosensory stimulation on neuronal excitability and motor performance in humans. <i>Neuroscience and Biobehavioral Reviews</i> , 2014, 47, 22-35.	2.9	62
142	Electronic bypass of spinal lesions: activation of lower motor neurons directly driven by cortical neural signals. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2014, 11, 107.	2.4	13
143	Recovery of Sensory and Supraspinal Control of Leg Movement in People With Chronic Paraplegia: A Case Series. <i>Archives of Physical Medicine and Rehabilitation</i> , 2014, 95, 610-614.	0.5	29
144	Implanted functional electrical stimulation: case report of a paraplegic patient with complete SCI after 9 years. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2014, 11, 15.	2.4	42
145	Implantable Sensors. , 2014, , 415-465.		11
146	The Brain and Spinal Cord Networks Controlling Locomotion. , 2014, , 215-233.		5
147	A Comparison of Robotic Walking Therapy and Conventional Walking Therapy in Individuals With Upper Versus Lower Motor Neuron Lesions: A Randomized Controlled Trial. <i>Archives of Physical Medicine and Rehabilitation</i> , 2014, 95, 1023-1031.	0.5	51
149	Altering spinal cord excitability enables voluntary movements after chronic complete paralysis in humans. <i>Brain</i> , 2014, 137, 1394-1409.	3.7	618
150	Brain Machine Interface and Limb Reanimation Technologies: Restoring Function After Spinal Cord Injury Through Development of a Bypass System. <i>Mayo Clinic Proceedings</i> , 2014, 89, 708-714.	1.4	25
151	Consensus of Clinical Neurorestorative Progress in Patients with Complete Chronic Spinal Cord Injury. <i>Cell Transplantation</i> , 2014, 23, 5-17.	1.2	29
152	Nanotechnology for Neural Tissue Engineering. , 2014, , 367-380.		1
153	Periodic modulation of repetitively elicited monosynaptic reflexes of the human lumbosacral spinal cord. <i>Journal of Neurophysiology</i> , 2015, 114, 400-410.	0.9	65
154	Transspinal constant-current long-lasting stimulation: a new method to induce cortical and corticospinal plasticity. <i>Journal of Neurophysiology</i> , 2015, 114, 1486-1499.	0.9	39

#	ARTICLE	IF	CITATIONS
156	Inducing hindlimb locomotor recovery in adult rat after complete thoracic spinal cord section using repeated treadmill training with perineal stimulation only. <i>Journal of Neurophysiology</i> , 2015, 114, 1931-1946.	0.9	36
157	Flexible active electrode arrays with ASICs that fit inside the rat's spinal canal. <i>Biomedical Microdevices</i> , 2015, 17, 106.	1.4	16
158	Initiation of Locomotor Activity in Decerebrate and Spinal Cats Using Noninvasive Transcutaneous Electrical Stimulation of the Spinal Cord. <i>Neuroscience and Behavioral Physiology</i> , 2015, 45, 505-511.	0.2	1
159	The feasibility of a brain-computer interface functional electrical stimulation system for the restoration of overground walking after paraplegia. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2015, 12, 80.	2.4	80
160	Neurocontrol of Movement in Humans With Spinal Cord Injury. <i>Artificial Organs</i> , 2015, 39, 823-833.	1.0	39
161	A neural circuitry that emphasizes spinal feedback generates diverse behaviours of human locomotion. <i>Journal of Physiology</i> , 2015, 593, 3493-3511.	1.3	216
162	Electrical Stimulation and Motor Recovery. <i>Cell Transplantation</i> , 2015, 24, 429-446.	1.2	58
163	Calculated spinal cord electric fields and current densities for possible neurite regrowth from quasi-DC electrical stimulation. <i>Bioelectromagnetics</i> , 2015, 36, 564-575.	0.9	6
164	A Review of Neuromodulation in the Neurorehabilitation. <i>International Journal of Neurorehabilitation</i> , 2015, 02, .	0.1	3
165	Learning about time within the spinal cord: evidence that spinal neurons can abstract and store an index of regularity. <i>Frontiers in Behavioral Neuroscience</i> , 2015, 9, 274.	1.0	10
166	Changes in functional properties and 5-HT modulation above and below a spinal transection in lamprey. <i>Frontiers in Neural Circuits</i> , 2014, 8, 148.	1.4	16
167	Spinal primitives and intra-spinal micro-stimulation (ISMS) based prostheses: a neurobiological perspective on the "known unknowns" in ISMS and future prospects. <i>Frontiers in Neuroscience</i> , 2015, 9, 72.	1.4	12
168	Safety and Efficacy of At-Home Robotic Locomotion Therapy in Individuals with Chronic Incomplete Spinal Cord Injury: A Prospective, Pre-Post Intervention, Proof-of-Concept Study. <i>PLoS ONE</i> , 2015, 10, e0119167.	1.1	12
169	Auditory Sensing Systems: Overview. , 2015, , 1-2.		0
170	Information Theory: Overview. , 2015, , 44-46.		0
171	Gamma and Theta Oscillations, Hippocampus: Overview. , 2015, , 43-44.		0
172	Brainstem Processing: Overview. , 2015, , 20-20.		0
173	Cerebellum: Overview. , 2015, , 21-24.		0

#	ARTICLE	IF	CITATIONS
174	The role of the serotonergic system in locomotor recovery after spinal cord injury. <i>Frontiers in Neural Circuits</i> , 2014, 8, 151.	1.4	96
175	Spinal electro-magnetic stimulation combined with transgene delivery of neurotrophin NT-3 and exercise: novel combination therapy for spinal contusion injury. <i>Journal of Neurophysiology</i> , 2015, 114, 2923-2940.	0.9	33
176	Effects of paired transcutaneous electrical stimulation delivered at single and dual sites over lumbosacral spinal cord. <i>Neuroscience Letters</i> , 2015, 609, 229-234.	1.0	57
177	No dawn yet of a new age in spinal cord rehabilitation. <i>Brain</i> , 2015, 138, e362-e362.	3.7	9
178	Traumatic Spinal Cord Injury: Recovery, Rehabilitation, and Prognosis. <i>Current Trauma Reports</i> , 2015, 1, 182-192.	0.6	20
179	Iron â€œElectriRxâ€™ man: Overground stepping in an exoskeleton combined with noninvasive spinal cord stimulation after paralysis. , 2015, 2015, 1124-7.		16
180	Intermittent hypoxia and neurorehabilitation. <i>Journal of Applied Physiology</i> , 2015, 119, 1455-1465.	1.2	110
181	Synaptic rearrangement following axonal injury: Old and new players. <i>Neuropharmacology</i> , 2015, 96, 113-123.	2.0	32
182	Human spinal locomotor control is based on flexibly organized burst generators. <i>Brain</i> , 2015, 138, 577-588.	3.7	139
183	The neuropathological foundations for the restorative neurology of spinal cord injury. <i>Clinical Neurology and Neurosurgery</i> , 2015, 129, S1-S7.	0.6	60
184	A Fully Implantable Stimulator With Wireless Power and Data Transmission for Experimental Investigation of Epidural Spinal Cord Stimulation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2015, 23, 683-692.	2.7	53
185	Electrophysiological biomarkers of neuromodulatory strategies to recover motor function after spinal cord injury. <i>Journal of Neurophysiology</i> , 2015, 113, 3386-3396.	0.9	22
186	Silicone rubber encapsulation for an endoscopically implantable gastrostimulator. <i>Medical and Biological Engineering and Computing</i> , 2015, 53, 319-329.	1.6	22
187	Transcutaneous electrical spinal-cord stimulation in humans. <i>Annals of Physical and Rehabilitation Medicine</i> , 2015, 58, 225-231.	1.1	176
188	Spinal cord injury: overview of experimental approaches used to restore locomotor activity. <i>Reviews in the Neurosciences</i> , 2015, 26, 397-405.	1.4	82
189	Optogenetic neuromodulation: New tools for monitoring and breaking neural circuits. <i>Annals of Physical and Rehabilitation Medicine</i> , 2015, 58, 259-264.	1.1	7
190	Neuroprosthetic technologies to augment the impact of neurorehabilitation after spinal cord injury. <i>Annals of Physical and Rehabilitation Medicine</i> , 2015, 58, 232-237.	1.1	26
191	Noninvasive Reactivation of Motor Descending Control after Paralysis. <i>Journal of Neurotrauma</i> , 2015, 32, 1968-1980.	1.7	236

#	ARTICLE	IF	CITATIONS
193	Ascending Projections of the RAS. , 2015, , 107-128.		0
194	Descending Projections of the RAS. , 2015, , 129-156.		1
195	Transspinal direct current stimulation immediately modifies motor cortex sensorimotor maps. Journal of Neurophysiology, 2015, 113, 2801-2811.	0.9	45
196	Modulation of Spinal Motor Output by Initial Arm Postures in Anesthetized Monkeys. Journal of Neuroscience, 2015, 35, 6937-6945.	1.7	5
197	Comprehensive assessment of walking function after human spinal cord injury. Progress in Brain Research, 2015, 218, 1-14.	0.9	5
198	Electrophysiological mapping of rat sensorimotor lumbosacral spinal networks after complete paralysis. Progress in Brain Research, 2015, 218, 199-212.	0.9	4
199	An Implantable Versatile Electrode-Driving ASIC for Chronic Epidural Stimulation in Rats. IEEE Transactions on Biomedical Circuits and Systems, 2015, 9, 387-400.	2.7	21
200	Management of Chronic Spinal Cord Dysfunction. CONTINUUM Lifelong Learning in Neurology, 2015, 21, 188-200.	0.4	11
201	Evaluation of optimal electrode configurations for epidural spinal cord stimulation in cervical spinal cord injured rats. Journal of Neuroscience Methods, 2015, 247, 50-57.	1.3	35
202	Wireless control of intraspinal microstimulation in a rodent model of paralysis. Journal of Neurosurgery, 2015, 123, 232-242.	0.9	11
203	Exercise after spinal cord injury as an agent for neuroprotection, regeneration and rehabilitation. Brain Research, 2015, 1619, 12-21.	1.1	100
204	An Active Learning Algorithm for Control of Epidural Electrostimulation. IEEE Transactions on Biomedical Engineering, 2015, 62, 2443-2455.	2.5	14
205	Sites of electrical stimulation used in neurology. Annals of Physical and Rehabilitation Medicine, 2015, 58, 201-207.	1.1	5
206	Targeted, activity-dependent spinal stimulation produces long-lasting motor recovery in chronic cervical spinal cord injury. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12193-12198.	3.3	128
207	Diagnosis and Acute Management of Spinal Cord Injury: Current Best Practices and Emerging Therapies. Current Trauma Reports, 2015, 1, 169-181.	0.6	7
208	Spinal segment-specific transcutaneous stimulation differentially shapes activation pattern among motor pools in humans. Journal of Applied Physiology, 2015, 118, 1364-1374.	1.2	99
209	Strategies and lessons in spinal cord injury rehabilitation. Current Physical Medicine and Rehabilitation Reports, 2015, 3, 206-213.	0.3	0
210	Augmentation of Voluntary Locomotor Activity by Transcutaneous Spinal Cord Stimulation in Motor-Complete Spinal Cord Injured Individuals. Artificial Organs, 2015, 39, E176-86.	1.0	112

#	ARTICLE	IF	CITATIONS
211	Multi-Electrode Array for Transcutaneous Lumbar Posterior Root Stimulation. <i>Artificial Organs</i> , 2015, 39, 834-840.	1.0	25
212	Activation of spinal locomotor circuits in the decerebrated cat by spinal epidural and/or intraspinal electrical stimulation. <i>Brain Research</i> , 2015, 1600, 84-92.	1.1	45
213	Initiation and modulation of locomotor circuitry output with multisite transcutaneous electrical stimulation of the spinal cord in noninjured humans. <i>Journal of Neurophysiology</i> , 2015, 113, 834-842.	0.9	120
214	The Evolution of Neuroprosthetic Interfaces. <i>Critical Reviews in Biomedical Engineering</i> , 2016, 44, 123-152.	0.5	56
215	An intermediate animal model of spinal cord stimulation. <i>European Journal of Translational Myology</i> , 2016, 26, 6034.	0.8	10
217	Paired Stimulation to Promote Lasting Augmentation of Corticospinal Circuits. <i>Neural Plasticity</i> , 2016, 2016, 1-11.	1.0	20
218	Training-Induced Functional Gains following SCI. <i>Neural Plasticity</i> , 2016, 2016, 1-12.	1.0	21
219	Miniaturized Technologies for Enhancement of Motor Plasticity. <i>Frontiers in Bioengineering and Biotechnology</i> , 2016, 4, 30.	2.0	3
220	Generation of Locomotor-Like Activity in the Isolated Rat Spinal Cord Using Intraspinal Electrical Microstimulation Driven by a Digital Neuromorphic CPG. <i>Frontiers in Neuroscience</i> , 2016, 10, 67.	1.4	36
221	Enhancing Nervous System Recovery through Neurobiologics, Neural Interface Training, and Neurorehabilitation. <i>Frontiers in Neuroscience</i> , 2016, 10, 584.	1.4	121
222	Body Position Influences Which Neural Structures Are Recruited by Lumbar Transcutaneous Spinal Cord Stimulation. <i>PLoS ONE</i> , 2016, 11, e0147479.	1.1	64
223	Recent advances in managing a spinal cord injury secondary to trauma. <i>F1000Research</i> , 2016, 5, 1017.	0.8	108
224	Epidural spinal cord stimulation for recovery from spinal cord injury: its place in therapy. <i>Journal of Neurorestoratology</i> , 2016, Volume 4, 63-67.	1.1	5
225	Two Distinct Stimulus Frequencies Delivered Simultaneously at Low Intensity Generate Robust Locomotor Patterns. <i>Neuromodulation</i> , 2016, 19, 563-575.	0.4	5
226	Neuromodulation of the neural circuits controlling the lower urinary tract. <i>Experimental Neurology</i> , 2016, 285, 182-189.	2.0	34
227	Epidural and transcutaneous spinal electrical stimulation for restoration of movement after incomplete and complete spinal cord injury. <i>Current Opinion in Neurology</i> , 2016, 29, 721-726.	1.8	40
228	A Pilot Clinical Study of Olfactory Mucosa Autograft for Chronic Complete Spinal Cord Injury. <i>Neurologia Medico-Chirurgica</i> , 2016, 56, 285-292.	1.0	14
229	Chapter 16 Functional Electrical Stimulation for the Treatment of Spinal Cord Injury. , 2016, , 283-310.		0

#	ARTICLE	IF	CITATIONS
230	Engaging Cervical Spinal Cord Networks to Reenable Volitional Control of Hand Function in Tetraplegic Patients. <i>Neurorehabilitation and Neural Repair</i> , 2016, 30, 951-962.	1.4	123
231	Brain-machine interface facilitated neurorehabilitation via spinal stimulation after spinal cord injury: Recent progress and future perspectives. <i>Brain Research</i> , 2016, 1646, 25-33.	1.1	50
232	New Perspectives on Neuroengineering and Neurotechnologies: NSF-DFG Workshop Report. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 1354-1367.	2.5	23
233	Unique Spatiotemporal Neuromodulation of the Lumbosacral Circuitry Shapes Locomotor Success after Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2016, 33, 1709-1723.	1.7	40
234	Intrinsic Control of Axon Regeneration. <i>Neuron</i> , 2016, 90, 437-451.	3.8	469
235	The Brain Dead Patient Is Still Sentient: A Further Reply to Patrick Lee and Germain Grisez. <i>Journal of Medicine and Philosophy</i> , 2016, 41, 315-328.	0.4	6
238	Spinal sensory circuits in motion. <i>Current Opinion in Neurobiology</i> , 2016, 41, 38-43.	2.0	9
239	Intraspinal microstimulation produces over-ground walking in anesthetized cats. <i>Journal of Neural Engineering</i> , 2016, 13, 056016.	1.8	62
240	Extremely low-frequency electromagnetic fields: A possible non-invasive therapeutic tool for spinal cord injury rehabilitation. <i>Electromagnetic Biology and Medicine</i> , 2017, 36, 1-14.	0.7	12
241	Effect of Combination of Non-Invasive Spinal Cord Electrical Stimulation and Serotonin Receptor Activation in Patients with Chronic Spinal Cord Lesion. <i>Bulletin of Experimental Biology and Medicine</i> , 2016, 161, 749-754.	0.3	14
242	An implantable wireless multi-channel neural prosthesis for epidural stimulation. , 2016, , .		2
243	Long-term paired associative stimulation can restore voluntary control over paralyzed muscles in incomplete chronic spinal cord injury patients. <i>Spinal Cord Series and Cases</i> , 2016, 2, 16016.	0.3	36
244	Restoration of Locomotion Based on Its Neural Mechanism. <i>The Japanese Journal of Rehabilitation Medicine</i> , 2016, 53, 54-59.	0.0	0
245	Motor evoked potential and voluntary EMG activity after olfactory mucosal autograft transplantation in a case of chronic, complete spinal cord injury: case report. <i>Spinal Cord Series and Cases</i> , 2016, 2, 15018.	0.3	3
246	Noninvasive method to control the human spinal locomotor systems. <i>Human Physiology</i> , 2016, 42, 61-68.	0.1	2
247	Early Sacral Neuromodulation in Spinal Cord Injury”Can It Regenerate Nerves?. <i>Current Bladder Dysfunction Reports</i> , 2016, 11, 350-355.	0.2	1
248	Effects of exercise training on urinary tract function after spinal cord injury. <i>American Journal of Physiology - Renal Physiology</i> , 2016, 310, F1258-F1268.	1.3	34
249	Targeting Lumbar Spinal Neural Circuitry by Epidural Stimulation to Restore Motor Function After Spinal Cord Injury. <i>Neurotherapeutics</i> , 2016, 13, 284-294.	2.1	66

#	ARTICLE	IF	CITATIONS
250	Sensorimotor regulation of movements: Novel strategies for the recovery of mobility. <i>Human Physiology</i> , 2016, 42, 90-102.	0.1	6
251	Early application of tail nerve electrical stimulation-induced walking training promotes locomotor recovery in rats with spinal cord injury. <i>Spinal Cord</i> , 2016, 54, 942-946.	0.9	11
252	Spinal Cord Stimulation and Augmentative Control Strategies for Leg Movement after Spinal Paralysis in Humans. <i>CNS Neuroscience and Therapeutics</i> , 2016, 22, 262-270.	1.9	53
253	Implantable neurotechnologies: bidirectional neural interfaces—applications and VLSI circuit implementations. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 1-17.	1.6	52
254	Spinal Rhythm Generation by Step-Induced Feedback and Transcutaneous Posterior Root Stimulation in Complete Spinal Cord-Injured Individuals. <i>Neurorehabilitation and Neural Repair</i> , 2016, 30, 233-243.	1.4	98
255	The embodiment of assistive devices—from wheelchair to exoskeleton. <i>Physics of Life Reviews</i> , 2016, 16, 163-175.	1.5	96
256	Advances in Scalable Implantable Systems for Neurostimulation Using Networked ASICs. <i>IEEE Design and Test</i> , 2016, 33, 8-23.	1.1	6
257	Neural Stem Cell Therapy and Rehabilitation in the Central Nervous System: Emerging Partnerships. <i>Physical Therapy</i> , 2016, 96, 734-742.	1.1	21
258	Targeted stimulation of the spinal cord to restore locomotor activity. <i>Nature Medicine</i> , 2016, 22, 125-126.	15.2	10
259	Oxidation and mitochondrial origin of NET DNA in the pathogenesis of lupus. <i>Nature Medicine</i> , 2016, 22, 126-127.	15.2	24
260	Longitudinal Evaluation of Residual Cortical and Subcortical Motor Evoked Potentials in Spinal Cord Injured Rats. <i>Journal of Neurotrauma</i> , 2016, 33, 907-916.	1.7	29
261	Staggered multi-site low-frequency electrostimulation effectively induces locomotor patterns in the isolated rat spinal cord. <i>Spinal Cord</i> , 2016, 54, 93-101.	0.9	18
262	From the Rodent Spinal Cord Injury Model to Human Application: Promises and Challenges. <i>Journal of Neurotrauma</i> , 2017, 34, 1826-1830.	1.7	30
263	Epidural Spinal Stimulation to Improve Bladder, Bowel, and Sexual Function in Individuals With Spinal Cord Injuries: A Framework for Clinical Research. <i>IEEE Transactions on Biomedical Engineering</i> , 2017, 64, 253-262.	2.5	40
264	Effects of spinal cord stimulation on motor functions in children with cerebral palsy. <i>Neuroscience Letters</i> , 2017, 639, 192-198.	1.0	41
265	A Five-Channel Noninvasive Electrical Stimulator of the Spinal Cord for Rehabilitation of Patients with Severe Motor Disorders. <i>Bio-Medical Engineering</i> , 2017, 50, 300-304.	0.3	16
266	Restoring standing capabilities with feedback control of functional neuromuscular stimulation following spinal cord injury. <i>Medical Engineering and Physics</i> , 2017, 42, 13-25.	0.8	19
267	Deletion of the Fractalkine Receptor, CX3CR1, Improves Endogenous Repair, Axon Sprouting, and Synaptogenesis after Spinal Cord Injury in Mice. <i>Journal of Neuroscience</i> , 2017, 37, 3568-3587.	1.7	66

#	ARTICLE	IF	CITATIONS
268	Feed-Forwardness of Spinal Networks in Posture and Locomotion. <i>Neuroscientist</i> , 2017, 23, 441-453.	2.6	33
269	Electrical neuromodulation of the cervical spinal cord facilitates forelimb skilled function recovery in spinal cord injured rats. <i>Experimental Neurology</i> , 2017, 291, 141-150.	2.0	63
270	Are midsagittal tissue bridges predictive of outcome after cervical spinal cord injury?. <i>Annals of Neurology</i> , 2017, 81, 740-748.	2.8	50
272	Recovery of supraspinal control of leg movement in a chronic complete flaccid paraplegic man after continuous low-frequency pelvic nerve stimulation and FES-assisted training. <i>Spinal Cord Series and Cases</i> , 2017, 3, 16034.	0.3	10
273	Spike-timing-dependent plasticity in lower-limb motoneurons after human spinal cord injury. <i>Journal of Neurophysiology</i> , 2017, 118, 2171-2180.	0.9	72
274	A Fully Integrated Wireless SoC for Motor Function Recovery After Spinal Cord Injury. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2017, 11, 497-509.	2.7	55
275	Against the odds: what to expect in rehabilitation of chronic spinal cord injury with a neurologically controlled Hybrid Assistive Limb exoskeleton. A subgroup analysis of 55 patients according to age and lesion level. <i>Neurosurgical Focus</i> , 2017, 42, E15.	1.0	59
276	TiO ₂ surfaces support neuron growth during electric field stimulation. <i>Materials Science and Engineering C</i> , 2017, 79, 1-8.	3.8	8
277	Traumatic spinal cord injury. <i>Nature Reviews Disease Primers</i> , 2017, 3, 17018.	18.1	1,138
278	Long-lasting increase in axonal excitability after epidurally applied DC. <i>Journal of Neurophysiology</i> , 2017, 118, 1210-1220.	0.9	26
279	Activity-Based Therapy: From Basic Science to Clinical Application for Recovery After Spinal Cord Injury. <i>Journal of Neurologic Physical Therapy</i> , 2017, 41, S39-S45.	0.7	88
280	Modeling trans-spinal direct current stimulation for the modulation of the lumbar spinal motor pathways. <i>Journal of Neural Engineering</i> , 2017, 14, 056014.	1.8	36
281	Neurophysiology and neural engineering: a review. <i>Journal of Neurophysiology</i> , 2017, 118, 1292-1309.	0.9	30
282	A novel cortical target to enhance hand motor output in humans with spinal cord injury. <i>Brain</i> , 2017, 140, 1619-1632.	3.7	47
283	Enabling Task-Specific Volitional Motor Functions via Spinal Cord Neuromodulation in a Human With Paraplegia. <i>Mayo Clinic Proceedings</i> , 2017, 92, 544-554.	1.4	189
284	Spinal Epidural Stimulation Strategies: Clinical Implications of Locomotor Studies in Spinal Rats. <i>Neuroscientist</i> , 2017, 23, 664-680.	2.6	39
285	Flexible and stretchable nanowire-coated fibers for optoelectronic probing of spinal cord circuits. <i>Science Advances</i> , 2017, 3, e1600955.	4.7	170
286	Acute granulocyte macrophage-colony stimulating factor treatment modulates neuroinflammatory processes and promotes tactile recovery after spinal cord injury. <i>Neuroscience</i> , 2017, 349, 144-164.	1.1	6

#	ARTICLE	IF	CITATIONS
287	Corticospinal circuit plasticity in motor rehabilitation from spinal cord injury. <i>Neuroscience Letters</i> , 2017, 652, 94-104.	1.0	29
288	A 3D map of the hindlimb motor representation in the lumbar spinal cord in Sprague Dawley rats. <i>Journal of Neural Engineering</i> , 2017, 14, 016007.	1.8	20
289	Motor recovery after activity-based training with spinal cord epidural stimulation in a chronic motor complete paraplegic. <i>Scientific Reports</i> , 2017, 7, 13476.	1.6	130
291	Effects of transcutaneous electrical spinal cord stimulation on stepping patterns during walking. <i>Human Physiology</i> , 2017, 43, 512-517.	0.1	1
292	Spinal and sensory neuromodulation of spinal neuronal networks in humans. <i>Human Physiology</i> , 2017, 43, 492-500.	0.1	5
293	A multidirectional gravity-assist algorithm that enhances locomotor control in patients with stroke or spinal cord injury. <i>Science Translational Medicine</i> , 2017, 9, .	5.8	42
294	Regenerative Rehabilitation: Combining Stem Cell Therapies and Activity-Dependent Stimulation. <i>Pediatric Physical Therapy</i> , 2017, 29, S10-S15.	0.3	10
295	Spinal cord stimulation in primary progressive freezing of gait. <i>Movement Disorders</i> , 2017, 32, 1336-1337.	2.2	11
296	Mental steps: Differential activation of internal pacemakers in motor imagery and in mental imitation of gait. <i>Human Brain Mapping</i> , 2017, 38, 5195-5216.	1.9	20
297	Clinical patient tracking in the presence of transient and permanent occlusions via geodesic feature. , 2017, , .		0
298	Paired motor cortex and cervical epidural electrical stimulation timed to converge in the spinal cord promotes lasting increases in motor responses. <i>Journal of Physiology</i> , 2017, 595, 6953-6968.	1.3	52
299	How plastic are human spinal cord motor circuitries?. <i>Experimental Brain Research</i> , 2017, 235, 3243-3249.	0.7	12
300	Electrical Neuromodulation of the Respiratory System After Spinal Cord Injury. <i>Mayo Clinic Proceedings</i> , 2017, 92, 1401-1414.	1.4	35
301	Therapeutic Stimulation for Restoration of Function After Spinal Cord Injury. <i>Physiology</i> , 2017, 32, 391-398.	1.6	42
302	EPO-releasing neural precursor cells promote axonal regeneration and recovery of function in spinal cord traumatic injury. <i>Restorative Neurology and Neuroscience</i> , 2017, 35, 583-599.	0.4	18
304	Spinal Cord Stimulation for Pain Control. <i>Series on Bioengineering and Biomedical Engineering</i> , 2017, , 710-761.	0.1	1
305	Stimulation of the Spinal Cord for the Control of Walking. <i>Series on Bioengineering and Biomedical Engineering</i> , 2017, , 811-849.	0.1	5
306	High-frequency epidural stimulation across the respiratory cycle evokes phrenic short-term potentiation after incomplete cervical spinal cord injury. <i>Journal of Neurophysiology</i> , 2017, 118, 2344-2357.	0.9	20

#	ARTICLE	IF	CITATIONS
307	When Pain Hurts: Nociceptive Stimulation Induces a State of Maladaptive Plasticity and Impairs Recovery after Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2017, 34, 1873-1890.	1.7	33
308	Transplants of Neurotrophin-Producing Autologous Fibroblasts Promote Recovery of Treadmill Stepping in the Acute, Sub-Chronic, and Chronic Spinal Cat. <i>Journal of Neurotrauma</i> , 2017, 34, 1858-1872.	1.7	12
309	Rehabilitation Strategies after Spinal Cord Injury: Inquiry into the Mechanisms of Success and Failure. <i>Journal of Neurotrauma</i> , 2017, 34, 1841-1857.	1.7	76
310	Movement repetitions in physical and occupational therapy during spinal cord injury rehabilitation. <i>Spinal Cord</i> , 2017, 55, 172-179.	0.9	56
311	Epidural Stimulation of Rat Spinal Cord at Lumbosacral Segment Using a Surface Electrode: A Computer Simulation Study. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 1763-1772.	2.7	3
312	Enhancing neural activity to drive respiratory plasticity following cervical spinal cord injury. <i>Experimental Neurology</i> , 2017, 287, 276-287.	2.0	27
313	Effects of Stand and Step Training with Epidural Stimulation on Motor Function for Standing in Chronic Complete Paraplegics. <i>Journal of Neurotrauma</i> , 2017, 34, 1787-1802.	1.7	106
314	12 Functional Electrical Stimulation and Neuromodulation Approaches to Enhance Recovery After Spinal Cord Injury. , 2017, , .		0
315	What Is Being Trained? How Divergent Forms of Plasticity Compete To Shape Locomotor Recovery after Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2017, 34, 1831-1840.	1.7	23
316	Quantifying performance of bipedal standing with multi-channel EMG. , 2017, , .		3
318	Modeling motor responses of paraplegics under epidural spinal cord stimulation. , 2017, , .		1
319	Surgical Neurostimulation for Spinal Cord Injury. <i>Brain Sciences</i> , 2017, 7, 18.	1.1	41
320	The Role of Functional Neuroanatomy of the Lumbar Spinal Cord in Effect of Epidural Stimulation. <i>Frontiers in Neuroanatomy</i> , 2017, 11, 82.	0.9	47
321	Weight Bearing Over-ground Stepping in an Exoskeleton with Non-invasive Spinal Cord Neuromodulation after Motor Complete Paraplegia. <i>Frontiers in Neuroscience</i> , 2017, 11, 333.	1.4	131
322	Cell biology of spinal cord injury and repair. <i>Journal of Clinical Investigation</i> , 2017, 127, 3259-3270.	3.9	381
323	Clinical therapeutic guideline for neurorestoration in spinal cord injury (Chinese version 2016). <i>Journal of Neurorestoratology</i> , 2017, Volume 5, 73-83.	1.1	11
324	Non-Invasive Activation of Cervical Spinal Networks after Severe Paralysis. <i>Journal of Neurotrauma</i> , 2018, 35, 2145-2158.	1.7	138
325	Static magnetic field stimulation applied over the cervical spinal cord can decrease corticospinal excitability in finger muscle. <i>Clinical Neurophysiology Practice</i> , 2018, 3, 49-53.	0.6	9

#	ARTICLE	IF	CITATIONS
327	Association of Epidural Stimulation With Cardiovascular Function in an Individual With Spinal Cord Injury. <i>JAMA Neurology</i> , 2018, 75, 630.	4.5	65
328	Spinal Cord Stimulation as a Neuromodulatory Intervention for Altered Motor Control Following Spinal Cord Injury. <i>Biosystems and Biorobotics</i> , 2018, , 501-521.	0.2	2
329	Robot-assisted upper extremity rehabilitation for cervical spinal cord injuries: a systematic scoping review. <i>Disability and Rehabilitation: Assistive Technology</i> , 2018, 13, 704-715.	1.3	36
330	Systemic administration of epothilone D improves functional recovery of walking after rat spinal cord contusion injury. <i>Experimental Neurology</i> , 2018, 306, 243-249.	2.0	45
331	Mapping and neuromodulation of lower urinary tract function using spinal cord stimulation in female rats. <i>Experimental Neurology</i> , 2018, 305, 26-32.	2.0	23
332	The 50 Most Cited Articles in Invasive Neuromodulation. <i>World Neurosurgery</i> , 2018, 114, e240-e246.	0.7	7
333	Chronic softening spinal cord stimulation arrays. <i>Journal of Neural Engineering</i> , 2018, 15, 045002.	1.8	41
334	Brain-computer interfaces based on intracortical recordings of neural activity for restoration of movement and communication of people with paralysis. , 2018, , .		1
335	Electrochemical Evaluations of Fractal Microelectrodes for Energy Efficient Neurostimulation. <i>Scientific Reports</i> , 2018, 8, 4375.	1.6	36
336	Impact of direct epispinal stimulation on bladder and bowel functions in pigs: A feasibility study. <i>Neurourology and Urodynamics</i> , 2018, 37, 138-147.	0.8	13
337	The neuropsychophysiology of tingling. <i>Consciousness and Cognition</i> , 2018, 58, 97-110.	0.8	31
338	An Autonomic Neuroprosthesis: Noninvasive Electrical Spinal Cord Stimulation Restores Autonomic Cardiovascular Function in Individuals with Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2018, 35, 446-451.	1.7	70
339	Cortical electrical stimulation in female rats with a cervical spinal cord injury to promote axonal outgrowth. <i>Journal of Neuroscience Research</i> , 2018, 96, 852-862.	1.3	17
340	And yet it moves : Recovery of volitional control after spinal cord injury. <i>Progress in Neurobiology</i> , 2018, 160, 64-81.	2.8	149
341	Strategies to augment volitional and reflex function may improve locomotor capacity following incomplete spinal cord injury. <i>Journal of Neurophysiology</i> , 2018, 119, 894-903.	0.9	5
342	EMG-triggered stimulation post spinal cord injury: A case report. <i>Physiotherapy Theory and Practice</i> , 2018, 34, 309-315.	0.6	1
343	Spectral analysis of lower limb EMG activity in individuals with motor complete SCI during standing with epidural stimulation. , 2018, , .		3
344	Interfaz cerebro-computador multimodal para procesos de neurorrehabilitaci3n de miembros superiores en pacientes con lesiones de m3dula espinal: una revisi3n. <i>Revista De Ingenieria Biomedica</i> , 2018, 12, .	0.1	2

#	ARTICLE	IF	CITATIONS
346	Innovations in electrical stimulation harness neural plasticity to restore motor function. <i>Bioelectronics in Medicine</i> , 2018, 1, 251-263.	2.0	5
347	In the Pipeline-Spinal Cord Injury. <i>Neurology Today: an Official Publication of the American Academy of Neurology</i> , 2018, 18, 10-11.	0.0	0
348	Cell Counting and Segmentation of Immunohistochemical Images in the Spinal Cord: Comparing Deep Learning and Traditional Approaches. , 2018, 2018, 842-845.		9
349	Balance, gait, and falls in spinal cord injury. <i>Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn</i> , 2018, 159, 367-384.	1.0	29
350	Applying Multichannel Optogenetic System for Epidural Spinal Cord Stimulation in Rats. , 2018, 2018, 1440-1443.		2
351	On Muscle Activation for Improving Robotic Rehabilitation after Spinal Cord Injury. , 2018, , .		1
352	Motor Neuroprostheses. , 2018, 9, 127-148.		6
353	Extraction of Muscle Synergies in Spinal Cord Injured Patients. , 2018, 2018, 2623-2626.		2
354	Inverse Reinforcement Learning via Function Approximation for Clinical Motion Analysis. , 2018, , .		9
355	Ethical Issues Surrounding a New Generation of Neuroprostheses for Patients With Spinal Cord Injuries. <i>PM and R</i> , 2018, 10, S244-S248.	0.9	1
356	Is Technology for Orthostatic Hypotension Ready for Primetime?. <i>PM and R</i> , 2018, 10, S249-S263.	0.9	2
357	Neuromodulation of lumbosacral spinal networks enables independent stepping after complete paraplegia. <i>Nature Medicine</i> , 2018, 24, 1677-1682.	15.2	416
358	Recovery of Over-Ground Walking after Chronic Motor Complete Spinal Cord Injury. <i>New England Journal of Medicine</i> , 2018, 379, 1244-1250.	18.9	449
359	Functional Selectivity of Lumbosacral Stimulation: Methodological Approach and Pilot Study to Assess Visceral Function in Pigs. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2018, 26, 2165-2178.	2.7	9
360	Electrical spinal cord stimulation must preserve proprioception to enable locomotion in humans with spinal cord injury. <i>Nature Neuroscience</i> , 2018, 21, 1728-1741.	7.1	247
361	Engaging cervical spinal circuitry with non-invasive spinal stimulation and buspirone to restore hand function in chronic motor complete patients. <i>Scientific Reports</i> , 2018, 8, 15546.	1.6	63
362	Epidural Spinal Cord Stimulation Training and Sustained Recovery of Cardiovascular Function in Individuals With Chronic Cervical Spinal Cord Injury. <i>JAMA Neurology</i> , 2018, 75, 1569.	4.5	66
363	3 Spinal Cord Protective and Regenerative Therapies. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
364	Configuration of electrical spinal cord stimulation through real-time processing of gait kinematics. <i>Nature Protocols</i> , 2018, 13, 2031-2061.	5.5	96
365	Neuromodulation in the restoration of function after spinal cord injury. <i>Lancet Neurology</i> , The, 2018, 17, 905-917.	4.9	119
367	Neural Mechanism of Human Gait and Postural Control. <i>The Japanese Journal of Rehabilitation Medicine</i> , 2018, 55, 724-729.	0.0	0
368	Potentiating paired corticospinal-motoneuronal plasticity after spinal cord injury. <i>Brain Stimulation</i> , 2018, 11, 1083-1092.	0.7	61
369	Trunk Stability Enabled by Noninvasive Spinal Electrical Stimulation after Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2018, 35, 2540-2553.	1.7	96
370	Transcutaneous Electrical Spinal Stimulation Promotes Long-Term Recovery of Upper Extremity Function in Chronic Tetraplegia. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2018, 26, 1272-1278.	2.7	143
371	Dissecting spinal cord regeneration. <i>Nature</i> , 2018, 557, 343-350.	13.7	224
372	Controlling Nerve Growth with an Electric Field Induced Indirectly in Transparent Conductive Substrate Materials. <i>Advanced Healthcare Materials</i> , 2018, 7, e1800473.	3.9	29
373	Now is the Critical Time for Engineered Neuroplasticity. <i>Neurotherapeutics</i> , 2018, 15, 628-634.	2.1	28
374	Targeted-Plasticity in the Corticospinal Tract After Human Spinal Cord Injury. <i>Neurotherapeutics</i> , 2018, 15, 618-627.	2.1	38
375	Lumbosacral spinal cord epidural stimulation improves voiding function after human spinal cord injury. <i>Scientific Reports</i> , 2018, 8, 8688.	1.6	85
376	Matlab software for impedance spectroscopy designed for neuroscience applications. <i>Journal of Neuroscience Methods</i> , 2018, 307, 70-83.	1.3	2
377	Neuromodulation of the Spinal Cord for Movement Restoration. , 2018, , 1183-1196.		3
378	A new conceptual framework for the integrated neural control of locomotor and sympathetic function: implications for exercise after spinal cord injury. <i>Applied Physiology, Nutrition and Metabolism</i> , 2018, 43, 1140-1150.	0.9	16
379	Epidural Spinal Cord Stimulation of Lumbosacral Networks Modulates Arterial Blood Pressure in Individuals With Spinal Cord Injury-Induced Cardiovascular Deficits. <i>Frontiers in Physiology</i> , 2018, 9, 565.	1.3	79
380	Normalization of Blood Pressure With Spinal Cord Epidural Stimulation After Severe Spinal Cord Injury. <i>Frontiers in Human Neuroscience</i> , 2018, 12, 83.	1.0	81
381	Non-invasive Neuromodulation of Spinal Cord Restores Lower Urinary Tract Function After Paralysis. <i>Frontiers in Neuroscience</i> , 2018, 12, 432.	1.4	58
382	Stimulating the Injured Spinal Cord: Plenty to Grasp. <i>Journal of Neurotrauma</i> , 2018, 35, 2143-2144.	1.7	0

#	ARTICLE	IF	CITATIONS
383	Reactivation of Dormant Relay Pathways in Injured Spinal Cord by KCC2 Manipulations. <i>Cell</i> , 2018, 174, 521-535.e13.	13.5	165
384	Clinical Trials in Traumatic Spinal Cord Injury. <i>Neurotherapeutics</i> , 2018, 15, 654-668.	2.1	73
385	Evidence of axon connectivity across a spinal cord transection in rats treated with epidural stimulation and motor training combined with olfactory ensheathing cell transplantation. <i>Experimental Neurology</i> , 2018, 309, 119-133.	2.0	31
386	Optogenetic surface stimulation of the rat cervical spinal cord. <i>Journal of Neurophysiology</i> , 2018, 120, 795-811.	0.9	19
387	A Proof-of-Concept Study of Transcutaneous Magnetic Spinal Cord Stimulation for Neurogenic Bladder. <i>Scientific Reports</i> , 2018, 8, 12549.	1.6	34
388	Stepping responses to treadmill perturbations vary with severity of motor deficits in human SCI. <i>Journal of Neurophysiology</i> , 2018, 120, 497-508.	0.9	2
389	Noninvasive neurophysiological mapping of the lower urinary tract in adult and aging rhesus macaques. <i>Journal of Neurophysiology</i> , 2018, 119, 1521-1527.	0.9	16
390	A speed-adaptive intraspinal microstimulation controller to restore weight-bearing stepping in a spinal cord hemisection model. <i>Journal of Neural Engineering</i> , 2018, 15, 056023.	1.8	19
391	Long-term effects of direct current are reproduced by intermittent depolarization of myelinated nerve fibers. <i>Journal of Neurophysiology</i> , 2018, 120, 1173-1185.	0.9	16
392	Development of an Activity-Dependent Epidural Stimulation System in Freely Moving Spinal Cord Injured Rats: A Proof of Concept Study. <i>Frontiers in Neuroscience</i> , 2018, 12, 472.	1.4	6
393	A rodent brain-machine interface paradigm to study the impact of paraplegia on BMI performance. <i>Journal of Neuroscience Methods</i> , 2018, 306, 103-114.	1.3	7
394	Common neural structures activated by epidural and transcutaneous lumbar spinal cord stimulation: Elicitation of posterior root-muscle reflexes. <i>PLoS ONE</i> , 2018, 13, e0192013.	1.1	150
395	Clinical and Neurophysiological Changes after Targeted Intrathecal Injections of Bone Marrow Stem Cells in a C3 Tetraplegic Subject. <i>Journal of Neurotrauma</i> , 2019, 36, 500-516.	1.7	17
396	Toward Functional Restoration of the Central Nervous System: A Review of Translational Neuroscience Principles. <i>Neurosurgery</i> , 2019, 84, 30-40.	0.6	20
397	Root cause analysis of epidural spinal cord stimulator implant infections with resolution after implementation of an improved protocol for surgical placement. <i>Journal of Infection Prevention</i> , 2019, 20, 185-190.	0.5	8
398	Functional State of the Neuromotor Apparatus of the Gastrocnemius Muscle in Rat Under Microgravity: Effect of Spinal Cord Stimulation. <i>BioNanoScience</i> , 2019, 9, 433-437.	1.5	1
401	The Mechanistic Basis for Successful Spinal Cord Stimulation to Generate Steady Motor Outputs. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 359.	1.8	4
402	Neurophysiological markers predicting recovery of standing in humans with chronic motor complete spinal cord injury. <i>Scientific Reports</i> , 2019, 9, 14474.	1.6	23

#	ARTICLE	IF	CITATIONS
403	Preferential activation of spinal sensorimotor networks via lateralized transcutaneous spinal stimulation in neurologically intact humans. <i>Journal of Neurophysiology</i> , 2019, 122, 2111-2118.	0.9	33
404	Restoration of hand function with long-term paired associative stimulation after chronic incomplete tetraplegia: a case study. <i>Spinal Cord Series and Cases</i> , 2019, 5, 81.	0.3	24
405	Terrain Adaptive Walking of Biped Neuromuscular Virtual Human Using Deep Reinforcement Learning. <i>IEEE Access</i> , 2019, 7, 92465-92475.	2.6	14
406	A Novel Multi-Resolution Wavelet Transform for Online Power Grid Waveform Classification. , 2019, , .		6
407	Epidural Spinal Cord Stimulation Improves Motor Function in Rats With Chemically Induced Parkinsonism. <i>Neurorehabilitation and Neural Repair</i> , 2019, 33, 1029-1039.	1.4	8
408	Multifactorial motor behavior assessment for real-time evaluation of emerging therapeutics to treat neurologic impairments. <i>Scientific Reports</i> , 2019, 9, 16503.	1.6	11
409	Propriospinal Neurons: Essential Elements of Locomotor Control in the Intact and Possibly the Injured Spinal Cord. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 512.	1.8	47
410	Myelin status and oligodendrocyte lineage cells over time after spinal cord injury: What do we know and what still needs to be unwrapped?. <i>Glia</i> , 2019, 67, 2178-2202.	2.5	58
411	A Novel Biomimetic Stimulator System for Neural Implant. , 2019, 2019, 843-846.		3
412	Bio-Inspired Balance Control Assistance Can Reduce Metabolic Energy Consumption in Human Walking. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 1760-1769.	2.7	19
413	Tetraplegia to Overground Stepping Using Non-Invasive Spinal Neuromodulation. , 2019, , .		7
414	How a revolutionary technique got people with spinal-cord injuries back on their feet. <i>Nature</i> , 2019, 572, 20-25.	13.7	11
415	Mechanisms of Vasodilation in Skin during Lumbar Transcutaneous Spinal Cord Stimulation. <i>Human Physiology</i> , 2019, 45, 389-396.	0.1	2
416	Repeated transspinal stimulation decreases soleus H-reflex excitability and restores spinal inhibition in human spinal cord injury. <i>PLoS ONE</i> , 2019, 14, e0223135.	1.1	31
417	Epidural Spinal Cord Stimulation Facilitates Immediate Restoration of Dormant Motor and Autonomic Supraspinal Pathways after Chronic Neurologically Complete Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2019, 36, 2325-2336.	1.7	157
418	Mechanisms of Blood Flow Regulation in the Skin during Stimulation of the Spinal Cord in Humans. <i>Doklady Biological Sciences</i> , 2019, 485, 27-29.	0.2	3
419	Stimulation and Repair of Peripheral Nerves Using Bioadhesive Graft Antenna. <i>Advanced Science</i> , 2019, 6, 1801212.	5.6	20
420	Functional Multipotency of Stem Cells and Recovery Neurobiology of Injured Spinal Cords. <i>Cell Transplantation</i> , 2019, 28, 451-459.	1.2	22

#	ARTICLE	IF	CITATIONS
421	Enhancing plasticity in spinal sensorimotor circuits following injuries to facilitate recovery of motor control. <i>Current Opinion in Physiology</i> , 2019, 8, 152-160.	0.9	2
422	Electric field gradients and bipolar electrochemistry effects on neural growth: A finite element study on immersed electroactive conducting electrode materials. <i>Electrochimica Acta</i> , 2019, 317, 102-111.	2.6	13
423	Collection of the Abstracts of the 2019Sp PMD: Translational Myology and Mobility Medicine. <i>European Journal of Translational Myology</i> , 2019, 29, 8155.	0.8	7
424	Motor Control After Human SCI Through Activation of Muscle Synergies Under Spinal Cord Stimulation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 1331-1340.	2.7	12
425	Multimodal Evaluation of TMS - Induced Somatosensory Plasticity and Behavioral Recovery in Rats With Contusion Spinal Cord Injury. <i>Frontiers in Neuroscience</i> , 2019, 13, 387.	1.4	32
426	A Biohybrid Setup for Coupling Biological and Neuromorphic Neural Networks. <i>Frontiers in Neuroscience</i> , 2019, 13, 432.	1.4	24
427	Role of the BDNF-TrkB pathway in KCC2 regulation and rehabilitation following neuronal injury: A mini review. <i>Neurochemistry International</i> , 2019, 128, 32-38.	1.9	36
428	Spinal Cord Stimulation. , 2019, , 43-48.		1
429	Spinal Cord Epidural Stimulation for Lower Limb Motor Function Recovery in Individuals with Motor Complete Spinal Cord Injury. <i>Physical Medicine and Rehabilitation Clinics of North America</i> , 2019, 30, 337-354.	0.7	36
430	Emergence of Epidural Electrical Stimulation to Facilitate Sensorimotor Network Functionality After Spinal Cord Injury. <i>Neuromodulation</i> , 2019, 22, 244-252.	0.4	60
431	On the reflex mechanisms of cervical transcutaneous spinal cord stimulation in human subjects. <i>Journal of Neurophysiology</i> , 2019, 121, 1672-1679.	0.9	39
432	Transspinal stimulation increases motoneuron output of multiple segments in human spinal cord injury. <i>PLoS ONE</i> , 2019, 14, e0213696.	1.1	25
433	Activity-based Training on a Treadmill with Spinal Cord Injured Wistar Rats. <i>Journal of Visualized Experiments</i> , 2019, , .	0.2	9
434	Toward a bio-inspired rehabilitation aid: sEMG-CPG approach for online generation of jaw trajectories for a chewing robot. <i>Biomedical Signal Processing and Control</i> , 2019, 51, 285-295.	3.5	11
435	Experimental spinal cord injury and behavioral tests in laboratory rats. <i>Heliyon</i> , 2019, 5, e01324.	1.4	44
436	Functional Ultrasound Imaging of Spinal Cord Hemodynamic Responses to Epidural Electrical Stimulation: A Feasibility Study. <i>Frontiers in Neurology</i> , 2019, 10, 279.	1.1	38
437	Implantable and wearable sensors. , 2019, , 489-545.		6
438	Flexible fiber-based optoelectronics for neural interfaces. <i>Chemical Society Reviews</i> , 2019, 48, 1826-1852.	18.7	100

#	ARTICLE	IF	CITATIONS
439	Decoding neural activity to predict rat locomotion using intracortical and epidural arrays. <i>Journal of Neural Engineering</i> , 2019, 16, 036005.	1.8	9
440	Estimulación de la médula espinal: más allá del manejo del dolor. <i>Neurología</i> , 2022, 37, 586-595.	0.3	9
441	A Device for the Rehabilitation Therapy of Patients with Motor Pathology Using Mechanotherapy, Transcutaneous Electrical Stimulation of the Spinal Cord, and Biological Feedback. <i>Bio-Medical Engineering</i> , 2019, 53, 227-230.	0.3	4
442	The effects and potential mechanisms of locomotor training on improvements of functional recovery after spinal cord injury. <i>International Review of Neurobiology</i> , 2019, 147, 199-217.	0.9	17
443	A Urodynamic Comparison of Neural Targets for Transcutaneous Electrical Stimulation to Acutely Suppress Detrusor Contractions Following Spinal Cord Injury. <i>Frontiers in Neuroscience</i> , 2019, 13, 1360.	1.4	12
444	Submaximal Marker for Investigating Peak Muscle Torque Using Neuromuscular Electrical Stimulation after Paralysis. <i>Journal of Neurotrauma</i> , 2019, 36, 930-936.	1.7	4
445	Electrophysiological Guidance of Epidural Electrode Array Implantation over the Human Lumbosacral Spinal Cord to Enable Motor Function after Chronic Paralysis. <i>Journal of Neurotrauma</i> , 2019, 36, 1451-1460.	1.7	56
446	Self-Assisted Standing Enabled by Non-Invasive Spinal Stimulation after Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2019, 36, 1435-1450.	1.7	143
447	Neuromuscular Control Models of Human Locomotion. , 2019, , 979-1007.		1
448	Embodiment in Neuro-engineering Endeavors: Phenomenological Considerations and Practical Implications. <i>Neuroethics</i> , 2019, 12, 231-242.	1.7	8
449	Restoring prolonged standing via functional electrical stimulation after spinal cord injury: A systematic review of control strategies. <i>Biomedical Signal Processing and Control</i> , 2019, 49, 34-47.	3.5	10
450	Epidural stimulation with locomotor training improves body composition in individuals with cervical or upper thoracic motor complete spinal cord injury: A series of case studies. <i>Journal of Spinal Cord Medicine</i> , 2019, 42, 32-38.	0.7	36
451	Multi-muscle electrical stimulation and stand training: Effects on standing. <i>Journal of Spinal Cord Medicine</i> , 2019, 42, 378-386.	0.7	9
452	Recent update on basic mechanisms of spinal cord injury. <i>Neurosurgical Review</i> , 2020, 43, 425-441.	1.2	123
453	Multiphase and Multivariable Linear Controllers That Account for the Joint Torques in Normal Human Walking. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 1573-1584.	2.5	0
454	Using EMG to deliver lumbar dynamic electrical stimulation to facilitate cortico-spinal excitability. <i>Brain Stimulation</i> , 2020, 13, 20-34.	0.7	21
455	Current barriers and ethical considerations for clinical implementation of epidural stimulation for functional improvement after spinal cord injury. <i>Journal of Spinal Cord Medicine</i> , 2020, 43, 653-656.	0.7	10
456	Proprioception: Bottom-up directive for motor recovery after spinal cord injury. <i>Neuroscience Research</i> , 2020, 154, 1-8.	1.0	17

#	ARTICLE	IF	CITATIONS
457	Current Principles of Motor Control, with Special Reference to Vertebrate Locomotion. <i>Physiological Reviews</i> , 2020, 100, 271-320.	13.1	314
458	Activity-Based Training Reverses Spinal Cord Injury-Induced Changes in Kidney Receptor Densities and Membrane Proteins. <i>Journal of Neurotrauma</i> , 2020, 37, 555-563.	1.7	6
459	Spinal Cord Injury (Cervical). , 2020, , 902-915.		2
460	Subcutaneous priming of protein-functionalized chitosan scaffolds improves function following spinal cord injury. <i>Materials Science and Engineering C</i> , 2020, 110, 110656.	3.8	25
461	Posteroanterior cervical transcutaneous spinal stimulation targets ventral and dorsal nerve roots. <i>Clinical Neurophysiology</i> , 2020, 131, 451-460.	0.7	27
462	Clinical Neurorestorative Therapeutic Guidelines for Spinal Cord Injury (IANR/CANR version 2019). <i>Journal of Orthopaedic Translation</i> , 2020, 20, 14-24.	1.9	73
463	Anatomical Plasticity of Rostrally Terminating Axons as a Possible Bridging Substrate across a Spinal Injury. <i>Journal of Neurotrauma</i> , 2020, 37, 877-888.	1.7	4
464	Transcutaneous Spinal Cord Stimulation and Motor Rehabilitation in Spinal Cord Injury: A Systematic Review. <i>Neurorehabilitation and Neural Repair</i> , 2020, 34, 3-12.	1.4	79
465	A Review of Different Stimulation Methods for Functional Reconstruction and Comparison of Respiratory Function after Cervical Spinal Cord Injury. <i>Applied Bionics and Biomechanics</i> , 2020, 2020, 1-12.	0.5	8
466	Epidural Electrical Stimulation: A Review of Plasticity Mechanisms That Are Hypothesized to Underlie Enhanced Recovery From Spinal Cord Injury With Stimulation. <i>Frontiers in Molecular Neuroscience</i> , 2020, 13, 163.	1.4	32
467	Mapping of the Spinal Sensorimotor Network by Transvertebral and Transcutaneous Spinal Cord Stimulation. <i>Frontiers in Systems Neuroscience</i> , 2020, 14, 555593.	1.2	5
468	Spinal cord stimulation and rehabilitation in an individual with chronic complete L1 paraplegia due to a conus medullaris injury: motor and functional outcomes at 18 months. <i>Spinal Cord Series and Cases</i> , 2020, 6, 96.	0.3	6
469	The Translesional Spinal Network and Its Reorganization after Spinal Cord Injury. <i>Neuroscientist</i> , 2022, 28, 163-179.	2.6	16
470	Intelligent Control of a Spinal Prosthesis to Restore Walking After Neural Injury: Recent Work and Future Possibilities. <i>Journal of Medical Robotics Research</i> , 2020, 05, 2041003.	1.0	4
471	Selective Antagonism of A1 Adenosinergic Receptors Strengthens the Neuromodulation of the Sensorimotor Network During Epidural Spinal Stimulation. <i>Frontiers in Systems Neuroscience</i> , 2020, 14, 44.	1.2	6
472	Reversing 21Âyears of chronic paralysis via nonâ€invasive spinal cord neuromodulation: a case study. <i>Annals of Clinical and Translational Neurology</i> , 2020, 7, 829-838.	1.7	18
473	Neuroprosthesis Devices Based on Micro- and Nanosensors: A Systematic Review. <i>Journal of Sensors</i> , 2020, 2020, 1-19.	0.6	4
474	Spinal Cord Imaging Markers and Recovery of Volitional Leg Movement With Spinal Cord Epidural Stimulation in Individuals With Clinically Motor Complete Spinal Cord Injury. <i>Frontiers in Systems Neuroscience</i> , 2020, 14, 559313.	1.2	25

#	ARTICLE	IF	CITATIONS
475	Spinal cord stimulation and intrathecal baclofen therapy for patients with severe spasticity after spinal cord injury. <i>Progress in Brain Research</i> , 2020, 258, 79-99.	0.9	8
476	Feasibility and utility of transcutaneous spinal cord stimulation combined with walking-based therapy for people with motor incomplete spinal cord injury. <i>Spinal Cord Series and Cases</i> , 2020, 6, 104.	0.3	20
477	Hybrid Human-Machine Interface for Gait Decoding Through Bayesian Fusion of EEG and EMG Classifiers. <i>Frontiers in Neurorobotics</i> , 2020, 14, 582728.	1.6	36
478	Epidural Stimulation Combined with Triple Gene Therapy for Spinal Cord Injury Treatment. <i>International Journal of Molecular Sciences</i> , 2020, 21, 8896.	1.8	17
479	Neural Stimulation and Molecular Mechanisms of Plasticity and Regeneration: A Review. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 271.	1.8	35
480	Effects of Rehabilitation on Perineural Nets and Synaptic Plasticity Following Spinal Cord Transection. <i>Brain Sciences</i> , 2020, 10, 824.	1.1	10
481	Beneficial Cardiac Structural and Functional Adaptations After Lumbosacral Spinal Cord Epidural Stimulation and Task-Specific Interventions: A Pilot Study. <i>Frontiers in Neuroscience</i> , 2020, 14, 554018.	1.4	10
482	Enabling respiratory control after severe chronic tetraplegia: an exploratory case study. <i>Journal of Neurophysiology</i> , 2020, 124, 774-780.	0.9	20
483	The Dorsal Root Ganglion as a Novel Neuromodulatory Target to Evoke Strong and Reproducible Motor Responses in Chronic Motor Complete Spinal Cord Injury: A Case Series of Five Patients. <i>Neuromodulation</i> , 2021, 24, 779-793.	0.4	8
484	Changes in spinal cord hemodynamics reflect modulation of spinal network with different parameters of epidural stimulation. <i>NeuroImage</i> , 2020, 221, 117183.	2.1	16
485	The evolution of nerve transfers for spinal cord injury. <i>Experimental Neurology</i> , 2020, 333, 113426.	2.0	18
486	Epidural stimulation for cardiovascular function increases lower limb lean mass in individuals with chronic motor complete spinal cord injury. <i>Experimental Physiology</i> , 2020, 105, 1684-1691.	0.9	9
487	Combined Supra- and Sub-Lesional Epidural Electrical Stimulation for Restoration of the Motor Functions after Spinal Cord Injury in Mini Pigs. <i>Brain Sciences</i> , 2020, 10, 744.	1.1	12
488	Modulation of Blood Flow in the Skin of Human Legs during Transcutaneous Electrical Stimulation of the Spinal Cord. <i>Human Physiology</i> , 2020, 46, 384-390.	0.1	0
489	Current Approaches to the Management of Acute Thoracolumbar Disc Extrusion in Dogs. <i>Frontiers in Veterinary Science</i> , 2020, 7, 610.	0.9	36
490	The Effects of Adding Transcutaneous Spinal Cord Stimulation (tSCS) to Sit-To-Stand Training in People with Spinal Cord Injury: A Pilot Study. <i>Journal of Clinical Medicine</i> , 2020, 9, 2765.	1.0	23
491	Rapid prototyping of soft bioelectronic implants for use as neuromuscular interfaces. <i>Nature Biomedical Engineering</i> , 2020, 4, 1010-1022.	11.6	78
492	The design of a randomized control trial of exoskeletal-assisted walking in the home and community on quality of life in persons with chronic spinal cord injury. <i>Contemporary Clinical Trials</i> , 2020, 96, 106102.	0.8	7

#	ARTICLE	IF	CITATIONS
493	Functional Electrical Stimulation and the Modulation of the Axon Regeneration Program. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 736.	1.8	18
494	Cardiovascular Autonomic Dysfunction in Spinal Cord Injury: Epidemiology, Diagnosis, and Management. <i>Seminars in Neurology</i> , 2020, 40, 550-559.	0.5	22
495	Restoration of Motor Functions in Spinal Rats by Electrical Stimulation of the Spinal Cord and Locomotor Training. <i>Neuroscience and Behavioral Physiology</i> , 2020, 50, 599-606.	0.2	1
496	Epidural Electrical Stimulation of the Lumbosacral Spinal Cord Improves Trunk Stability During Seated Reaching in Two Humans With Severe Thoracic Spinal Cord Injury. <i>Frontiers in Systems Neuroscience</i> , 2020, 14, 79.	1.2	20
497	Immediate Effects of Transcutaneous Spinal Cord Stimulation on Motor Function in Chronic, Sensorimotor Incomplete Spinal Cord Injury. <i>Journal of Clinical Medicine</i> , 2020, 9, 3541.	1.0	31
498	Corticospinal-motor neuronal plasticity promotes exercise-mediated recovery in humans with spinal cord injury. <i>Brain</i> , 2020, 143, 1368-1382.	3.7	76
499	Learning to promote recovery after spinal cord injury. <i>Experimental Neurology</i> , 2020, 330, 113334.	2.0	20
500	Effect of Simultaneous Combined Treadmill Training and Magnetic Stimulation on Spasticity and Gait Impairments after Cervical Spinal Cord Injury. <i>Journal of Neurotrauma</i> , 2020, 37, 1999-2013.	1.7	14
501	Prolonged Analgesia by Spinal Cord Stimulation Following a Spinal Injury Associated With Activation of Adult Neural Progenitors. <i>Pain Practice</i> , 2020, 20, 859-877.	0.9	3
502	“œl Felt the Ball”œœThe Future of Spine Injury Recovery. <i>World Neurosurgery</i> , 2020, 140, 602-613.	0.7	1
503	Neuroregeneration and plasticity: a review of the physiological mechanisms for achieving functional recovery postinjury. <i>Military Medical Research</i> , 2020, 7, 30.	1.9	40
504	Supraspinal and Afferent Signaling Facilitate Spinal Sensorimotor Network Excitability After Discomplete Spinal Cord Injury: A Case Report. <i>Frontiers in Neuroscience</i> , 2020, 14, 552.	1.4	15
505	A computational outlook on neurostimulation. <i>Bioelectronic Medicine</i> , 2020, 6, 10.	1.0	20
506	Interfacing With Alpha Motor Neurons in Spinal Cord Injury Patients Receiving Trans-spinal Electrical Stimulation. <i>Frontiers in Neurology</i> , 2020, 11, 493.	1.1	12
507	Asiaticoside Inhibits Neuronal Apoptosis and Promotes Functional Recovery After Spinal Cord Injury in Rats. <i>Journal of Molecular Neuroscience</i> , 2020, 70, 1988-1996.	1.1	13
508	Wireless Electrical Stimulators and Sensors Network for Closed Loop Control in Rehabilitation. <i>Frontiers in Neuroscience</i> , 2020, 14, 117.	1.4	8
509	Impact of long-term epidural electrical stimulation enabled task-specific training on secondary conditions of chronic paraplegia in two humans. <i>Journal of Spinal Cord Medicine</i> , 2021, 44, 800-805.	0.7	24
510	Walking after Spinal Cord Injury: Current Clinical Approaches and Future Directions. <i>Current Physical Medicine and Rehabilitation Reports</i> , 2020, 8, 149-158.	0.3	2

#	ARTICLE	IF	CITATIONS
511	Spinal cord stimulation for the recovery of function following spinal cord injury. , 2020, , 487-509.		0
512	Complications of epidural spinal stimulation: lessons from the past and alternatives for the future. Spinal Cord, 2020, 58, 1049-1059.	0.9	28
513	A Comparison of FES and SCS for Neuroplastic Recovery After SCI: Historical Perspectives and Future Directions. Frontiers in Neurology, 2020, 11, 607.	1.1	21
514	Site-Specific Neuromodulation of Detrusor and External Urethral Sphincter by Epidural Spinal Cord Stimulation. Frontiers in Systems Neuroscience, 2020, 14, 47.	1.2	11
515	Daily acute intermittent hypoxia to improve walking function in persons with subacute spinal cord injury: a randomized clinical trial study protocol. BMC Neurology, 2020, 20, 273.	0.8	9
516	Multi-target approaches to CNS repair: olfactory mucosa-derived cells and heparan sulfates. Nature Reviews Neurology, 2020, 16, 229-240.	4.9	43
517	Recent advances in neuromodulation for spinal cord injuries. Progress in Neurology and Psychiatry, 2020, 24, 4-8.	0.4	2
518	A Brain to Spine Interface for Transferring Artificial Sensory Information. Scientific Reports, 2020, 10, 900.	1.6	15
519	Vagus Nerve Stimulation Paired With Rehabilitative Training Enhances Motor Recovery After Bilateral Spinal Cord Injury to Cervical Forelimb Motor Pools. Neurorehabilitation and Neural Repair, 2020, 34, 200-209.	1.4	26
520	Human motion analysis in medical robotics via high-dimensional inverse reinforcement learning. International Journal of Robotics Research, 2020, 39, 568-585.	5.8	5
521	Novel Activity Detection Algorithm to Characterize Spontaneous Stepping During Multimodal Spinal Neuromodulation After Mid-Thoracic Spinal Cord Injury in Rats. Frontiers in Systems Neuroscience, 2019, 13, 82.	1.2	2
522	Stimulus outputs induced by subdural electrodes on the cervical spinal cord in monkeys. Journal of Neural Engineering, 2020, 17, 016044.	1.8	14
523	Interlimb conditioning of lumbosacral spinally evoked motor responses after spinal cord injury. Clinical Neurophysiology, 2020, 131, 1519-1532.	0.7	9
524	Sum of phase-shifted sinusoids stimulation prolongs paralyzed muscle output. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 49.	2.4	2
525	The posterior root-muscle reflex. , 2020, , 239-253.		2
526	A therapeutic effect for males with spinal cord injury using abdominal functional electrical stimulation for sexual functioning. Spinal Cord Series and Cases, 2020, 6, 24.	0.3	1
527	Restoration of autonomic cardiovascular regulation in spinal cord injury with epidural stimulation: a case series. Clinical Autonomic Research, 2021, 31, 317-320.	1.4	22
528	Ten-Year Experience With Continuous Low-Frequency Pelvic Somatic Nerves Stimulation for Recovery of Voluntary Walking in People With Chronic Spinal Cord Injury: A Prospective Case Series of 29 Consecutive Patients. Archives of Physical Medicine and Rehabilitation, 2021, 102, 50-57.	0.5	7

#	ARTICLE	IF	CITATIONS
529	Functions of Interoception: From Energy Regulation to Experience of the Self. Trends in Neurosciences, 2021, 44, 29-38.	4.2	124
530	Does low-frequency pelvic nerves stimulation in people with spinal cord injury allow for the formation of electrical pathways responsible for the recovery of walking functions?. Medical Hypotheses, 2021, 146, 110376.	0.8	1
531	Design of intracortical microstimulation patterns to control the location, intensity, and quality of evoked sensations in human and animal models. , 2021, , 479-506.		0
532	Epidural and Transcutaneous Spinal Cord Stimulation Strategies for Motor Recovery After Spinal Cord Injury. , 2021, , 167-190.		1
533	Neuromodulation for Gait Disorders. Contemporary Clinical Neuroscience, 2021, , 485-520.	0.3	0
534	Novel Non-invasive Strategy for Spinal Neuromodulation to Control Human Locomotion. Frontiers in Human Neuroscience, 2020, 14, 622533.	1.0	9
535	Design of a Novel Paired Associative Nerve Stimulation System and Treatment Strategy for Incomplete Spinal Cord Injury: A Preliminary Study. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1341-1349.	2.7	6
536	Epidural electrical stimulation for spinal cord injury. Neural Regeneration Research, 2021, 16, 2367.	1.6	27
537	A System for Detecting Stepping Cycle Phases and Spinal Cord Stimulation as a Tool for Controlling Human Locomotion. Bio-Medical Engineering, 2021, 54, 312-316.	0.3	7
538	Spinal motor mapping by epidural stimulation of lumbosacral posterior roots in humans. IScience, 2021, 24, 101930.	1.9	23
539	Optimization of Spinal Cord Stimulation Using Bayesian Preference Learning and Its Validation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1987-1997.	2.7	18
540	Spinal Cord Injury and Epidural Spinal Cord Stimulation. Contemporary Clinical Neuroscience, 2021, , 19-38.	0.3	0
541	Improvements in Bladder Function Following Activity-Based Recovery Training With Epidural Stimulation After Chronic Spinal Cord Injury. Frontiers in Systems Neuroscience, 2020, 14, 614691.	1.2	28
542	Neurophysiological Changes in the First Year After Cell Transplantation in Sub-acute Complete Paraplegia. Frontiers in Neurology, 2020, 11, 514181.	1.1	13
543	What Is the Role of Frequency on Neural Activation in Tonic Stimulation in SCS Therapy? A Computational Study on Sensory A β Nerve Fibers. IEEE Access, 2021, 9, 107446-107461.	2.6	4
544	Cervical Electrical Neuromodulation Effectively Enhances Hand Motor Output in Healthy Subjects by Engaging a Use-Dependent Intervention. Journal of Clinical Medicine, 2021, 10, 195.	1.0	16
545	Recruitment of upper-limb motoneurons with epidural electrical stimulation of the cervical spinal cord. Nature Communications, 2021, 12, 435.	5.8	92
546	Restoration of breathing after opioid overdose and spinal cord injury using temporal interference stimulation. Communications Biology, 2021, 4, 107.	2.0	21

#	ARTICLE	IF	CITATIONS
547	Spinal cord stimulation and cauda equina syndrome: Could it be a valid option? A report of two cases. <i>Neurocirugia</i> , 2021, , .	0.2	2
548	Improving hindlimb locomotor function by Non-invasive AAV-mediated manipulations of propriospinal neurons in mice with complete spinal cord injury. <i>Nature Communications</i> , 2021, 12, 781.	5.8	50
549	An intracortical neuroprosthesis immediately alleviates walking deficits and improves recovery of leg control after spinal cord injury. <i>Science Translational Medicine</i> , 2021, 13, .	5.8	32
550	Epidural and transcutaneous spinal cord stimulation facilitates descending inputs to upper-limb motoneurons in monkeys. <i>Journal of Neural Engineering</i> , 2021, 18, 046011.	1.8	27
551	Effects of Phase Shifts of Transcutaneous Electrical Spinal Cord Stimulation on the Kinematic Characteristics of Stepping Movements in Humans. <i>Journal of Evolutionary Biochemistry and Physiology</i> , 2021, 57, 319-324.	0.2	0
552	Stem Cell Neurodevelopmental Solutions for Restorative Treatments of the Human Trunk and Spine. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 667590.	1.8	13
554	Simultaneous Cervical and Lumbar Spinal Cord Stimulation Induces Facilitation of Both Spinal and Corticospinal Circuitry in Humans. <i>Frontiers in Neuroscience</i> , 2021, 15, 615103.	1.4	13
555	Transcutaneous Spinal Cord Stimulation Enhances Walking Performance and Reduces Spasticity in Individuals with Multiple Sclerosis. <i>Brain Sciences</i> , 2021, 11, 472.	1.1	25
556	Clinical Trial Designs for Neuromodulation in Chronic Spinal Cord Injury Using Epidural Stimulation. <i>Neuromodulation</i> , 2021, 24, 405-415.	0.4	4
557	Non-invasive approaches to functional recovery after spinal cord injury: Therapeutic targets and multimodal device interventions. <i>Experimental Neurology</i> , 2021, 339, 113612.	2.0	22
558	<i>In vivo</i> electrophysiological mechanisms underlying cervical epidural stimulation in adult rats. <i>Journal of Physiology</i> , 2021, 599, 3121-3150.	1.3	11
559	Spinal cord stimulation: beyond pain management. <i>Neurología (English Edition)</i> , 2022, 37, 586-595.	0.2	8
560	Intermuscular Coherence in the Presence of Electrical Stimulation. <i>Frontiers in Systems Neuroscience</i> , 2021, 15, 647430.	1.2	0
561	The Role of Supraspinal Structures for Recovery after SCI: From Motor Dysfunction to Mental Health. , 0, , .		0
562	Training the bladder how to void: A noninvasive spinal neuromodulation case study. , 2021, , .		3
564	Diaphragm Pacing and a Model for Respiratory Rehabilitation After Spinal Cord Injury. <i>Journal of Neurologic Physical Therapy</i> , 2021, 45, 235-242.	0.7	4
566	Ultrasound in Traumatic Spinal Cord Injury: A Wide-Open Field. <i>Neurosurgery</i> , 2021, 89, 372-382.	0.6	15
567	Effective Stimulation Type and Waveform for Force Control of the Motor Unit System: Implications for Intraspinal Microstimulation. <i>Frontiers in Neuroscience</i> , 2021, 15, 645984.	1.4	0

#	ARTICLE	IF	CITATIONS
568	Hindlimb Somatosensory Information Influences Trunk Sensory and Motor Cortices to Support Trunk Stabilization. <i>Cerebral Cortex</i> , 2021, 31, 5165-5187.	1.6	4
569	A Novel Technique to Reject Artifact Components for Surface EMG Signals Recorded During Walking With Transcutaneous Spinal Cord Stimulation: A Pilot Study. <i>Frontiers in Human Neuroscience</i> , 2021, 15, 660583.	1.0	7
570	Prelude to the special issue on novel neurocircuit, cellular and molecular targets for developing functional rehabilitation therapies of neurotrauma. <i>Experimental Neurology</i> , 2021, 341, 113689.	2.0	2
571	Spinal cord regeneration: A brief overview of the present scenario and a sneak peek into the future. <i>Biotechnology Journal</i> , 2021, 16, e2100167.	1.8	7
572	Plasticity of the Injured Spinal Cord. <i>Cells</i> , 2021, 10, 1886.	1.8	14
573	Resilience of neural networks for locomotion. <i>Journal of Physiology</i> , 2021, 599, 3825-3840.	1.3	15
574	Brain-Computer Interface, Neuromodulation, and Neurorehabilitation Strategies for Spinal Cord Injury. <i>Neurosurgery Clinics of North America</i> , 2021, 32, 407-417.	0.8	3
575	The Natural History of Spinal Cord Injury. <i>Neurosurgery Clinics of North America</i> , 2021, 32, 315-321.	0.8	1
576	Transcutaneous Spinal Neuromodulation Reorganizes Neural Networks in Patients with Cerebral Palsy. <i>Neurotherapeutics</i> , 2021, 18, 1953-1962.	2.1	18
577	A wireless spinal stimulation system for ventral activation of the rat cervical spinal cord. <i>Scientific Reports</i> , 2021, 11, 14900.	1.6	8
578	Spinal Locomotion in Cats Following Spinal Cord Injury: A Prospective Study. <i>Animals</i> , 2021, 11, 1994.	1.0	4
579	Dual motor cortex and spinal cord neuromodulation improves rehabilitation efficacy and restores skilled locomotor function in a rat cervical contusion injury model. <i>Experimental Neurology</i> , 2021, 341, 113715.	2.0	9
580	Outcomes of a Multicenter Safety and Efficacy Study of the SuitX Phoenix Powered Exoskeleton for Ambulation by Patients With Spinal Cord Injury. <i>Frontiers in Neurology</i> , 2021, 12, 689751.	1.1	12
581	Targeting Central Nervous System Regeneration with Cell Type Specificity. <i>Neurosurgery Clinics of North America</i> , 2021, 32, 397-405.	0.8	7
582	Functional Neurorehabilitation in Dogs with an Incomplete Recovery 3 Months following Intervertebral Disc Surgery: A Case Series. <i>Animals</i> , 2021, 11, 2442.	1.0	7
583	Corticospinal Motor Circuit Plasticity After Spinal Cord Injury: Harnessing Neuroplasticity to Improve Functional Outcomes. <i>Molecular Neurobiology</i> , 2021, 58, 5494-5516.	1.9	17
584	Electrical epidural stimulation of the cervical spinal cord: implications for spinal respiratory neuroplasticity after spinal cord injury. <i>Journal of Neurophysiology</i> , 2021, 126, 607-626.	0.9	8
585	Paving the way for a better management of pain in patients with spinal cord injury: An exploratory study on the use of Functional Electric Stimulation(FES)-cycling. <i>Journal of Spinal Cord Medicine</i> , 2023, 46, 107-117.	0.7	1

#	ARTICLE	IF	CITATIONS
586	Effect of spinal cord injury on neural encoding of spontaneous postural perturbations in the hindlimb sensorimotor cortex. <i>Journal of Neurophysiology</i> , 2021, 126, 1555-1567.	0.9	2
587	The effects of epidural stimulation on individuals living with spinal cord injury or disease: a scoping review. <i>Physical Therapy Reviews</i> , 2021, 26, 344-369.	0.3	2
588	Epidural spinal cord stimulation for motor recovery in spinal cord injury: A systematic review. <i>NeuroRehabilitation</i> , 2021, 49, 1-22.	0.5	9
589	Lateral Corticospinal Tract and Dorsal Column Damage: Predictive Relationships With Motor and Sensory Scores at Discharge From Acute Rehabilitation After Spinal Cord Injury. <i>Archives of Physical Medicine and Rehabilitation</i> , 2022, 103, 62-68.	0.5	5
590	Low-Intensity and Short-Duration Continuous Cervical Transcutaneous Spinal Cord Stimulation Intervention Does Not Prime the Corticospinal and Spinal Reflex Pathways in Able-Bodied Subjects. <i>Journal of Clinical Medicine</i> , 2021, 10, 3633.	1.0	9
591	Recruitment order of motor neurons promoted by epidural stimulation in individuals with spinal cord injury. <i>Journal of Applied Physiology</i> , 2021, 131, 1100-1110.	1.2	12
592	The plasticity of nerve fibers: the prolonged effects of polarization of afferent fibers. <i>Journal of Neurophysiology</i> , 2021, 126, 1568-1591.	0.9	11
593	Axon Regeneration: A Subcellular Extension in Multiple Dimensions. <i>Cold Spring Harbor Perspectives in Biology</i> , 2022, 14, a040923.	2.3	9
594	First experience with chronic epidural spinal cord stimulation in Khanty-Mansi autonomous okrug "â€” clinical observations. <i>Neurology Bulletin</i> , 2021, LIII, 94-100.	0.0	0
595	Formation of a novel supraspinal-spinal connectome that relearns the same motor task after complete paralysis. <i>Journal of Neurophysiology</i> , 2021, 126, 957-966.	0.9	3
596	Combined neuromodulatory approaches in the central nervous system for treatment of spinal cord injury. <i>Current Opinion in Neurology</i> , 2021, Publish Ahead of Print, 804-811.	1.8	6
597	Delving into the recent advancements of spinal cord injury treatment: a review of recent progress. <i>Neural Regeneration Research</i> , 2022, 17, 283.	1.6	28
598	A flexible electrode array for determining regions of motor function activated by epidural spinal cord stimulation in rats with spinal cord injury. <i>Neural Regeneration Research</i> , 2022, 17, 601.	1.6	3
599	Alterations of Spinal Epidural Stimulation-Enabled Stepping by Descending Intentional Motor Commands and Proprioceptive Inputs in Humans With Spinal Cord Injury. <i>Frontiers in Systems Neuroscience</i> , 2020, 14, 590231.	1.2	14
600	Transcutaneous Spinal Cord Stimulation Restores Hand and Arm Function After Spinal Cord Injury. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021, 29, 310-319.	2.7	97
601	Clinical guidelines for neurorestorative therapies in spinal cord injury (2021 China version). <i>Journal of Neurorestoratology</i> , 2021, 9, 31-49.	1.1	35
602	Spinal Cord Stimulation After Spinal Cord Injury: Promising Multisystem Effects. <i>Current Physical Medicine and Rehabilitation Reports</i> , 2021, 9, 23-31.	0.3	2
603	Spinal cord stimulation for spinal cord injury patients with paralysis: To regain walking and dignity. <i>Tzu Chi Medical Journal</i> , 2021, 33, 29.	0.4	1

#	ARTICLE	IF	CITATIONS
604	Epidural electrical stimulation effectively restores locomotion function in rats with complete spinal cord injury. <i>Neural Regeneration Research</i> , 2021, 16, 573.	1.6	12
605	Acute intermittent hypoxia boosts spinal plasticity in humans with tetraplegia. <i>Experimental Neurology</i> , 2021, 335, 113483.	2.0	27
606	Information and Communication Theoretical Understanding and Treatment of Spinal Cord Injuries: State-of-The-Art and Research Challenges. <i>IEEE Reviews in Biomedical Engineering</i> , 2023, 16, 332-347.	13.1	9
608	Paraspinal Magnetic and Transcutaneous Electrical Stimulation. , 2014, , 1-21.		1
609	Paraspinal Magnetic and Transcutaneous Electrical Stimulation. , 2014, , 1-21.		1
610	Rehabilitation-Dependent Neural Plasticity After Spinal Cord Injury. , 2016, , 439-456.		1
611	Neural Prostheses for Neurotrauma. , 2016, , 457-478.		1
612	Anatomically Realistic Computational Model to Assess the Specificity of Epidural Electrical Stimulation of the Cervical Spinal Cord. <i>Biosystems and Biorobotics</i> , 2019, , 44-48.	0.2	3
613	Sensorimotor Integration in the Spinal Cord, from Behaviors to Circuits: New Tools to Close the Loop?. <i>Biological and Medical Physics Series</i> , 2015, , 197-234.	0.3	2
614	Penetrating Ballistic Spinal Injury. , 2017, , 201-214.		1
615	Upper Limb Neuroprostheses: Recent Advances and Future Directions. <i>Biosystems and Biorobotics</i> , 2014, , 207-233.	0.2	6
616	Neurostimulation Devices for the Treatment of Neurologic Disorders. <i>Mayo Clinic Proceedings</i> , 2017, 92, 1427-1444.	1.4	136
617	Spinal cord stimulation for the restoration of bladder function after spinal cord injury. <i>Healthcare Technology Letters</i> , 2020, 7, 87-92.	1.9	13
618	Electrical Stimulation as a Tool to Promote Plasticity of the Injured Spinal Cord. <i>Journal of Neurotrauma</i> , 2020, 37, 1933-1953.	1.7	37
619	Predictors of volitional motor recovery with epidural stimulation in individuals with chronic spinal cord injury. <i>Brain</i> , 2021, 144, 420-433.	3.7	28
624	Cervical Spinal Cord Transcutaneous Stimulation Improves Upper Extremity and Hand Function in People With Complete Tetraplegia: A Case Study. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 3167-3174.	2.7	39
625	Wireless Epidural Electrical Stimulation in Combination With Serotonin Agonists Improves Intraspinal Metabolism in Spinal Cord Injury Rats. <i>Neuromodulation</i> , 2021, 24, 416-426.	0.4	4
626	Neuromodulation of motor-evoked potentials during stepping in spinal rats. <i>Journal of Neurophysiology</i> , 2013, 110, 1311-1322.	0.9	39

#	ARTICLE	IF	CITATIONS
627	Trends in Clinical Trials for Spinal Cord Stimulation. <i>Stereotactic and Functional Neurosurgery</i> , 2021, 99, 123-134.	0.8	13
628	The Application of Omics Technologies to Study Axon Regeneration and CNS Repair. <i>F1000Research</i> , 2019, 8, 311.	0.8	11
629	American Spinal Injury Association (ASIA) 40th Anniversary: Beginnings, Accomplishments and Future Challenges. <i>Topics in Spinal Cord Injury Rehabilitation</i> , 2013, 19, 153-171.	0.8	3
630	Effects of Lumbosacral Spinal Cord Epidural Stimulation for Standing after Chronic Complete Paralysis in Humans. <i>PLoS ONE</i> , 2015, 10, e0133998.	1.1	166
631	A novel approach for automatic visualization and activation detection of evoked potentials induced by epidural spinal cord stimulation in individuals with spinal cord injury. <i>PLoS ONE</i> , 2017, 12, e0185582.	1.1	17
632	Rehabilitation of patients in late period after spinal cord injury: a meta-analysis of literature data. <i>Hirurgia Pozvonocznika</i> , 2019, 16, 8-16.	0.1	7
633	The Multifunctional Mesencephalic Locomotor Region. <i>Current Pharmaceutical Design</i> , 2013, 19, 4448-4470.	0.9	159
634	Probing the Human Spinal Locomotor Circuits by Phasic Step-Induced Feedback and by Tonic Electrical and Pharmacological Neuromodulation. <i>Current Pharmaceutical Design</i> , 2017, 23, 1805-1820.	0.9	31
635	Current advancements in the management of spinal cord injury: A comprehensive review of literature. , 2020, 11, 2.		37
636	Review of clinical neurorestorative strategies for spinal cord injury: Exploring history and latest progresses. <i>Journal of Neurorestoratology</i> , 2018, 6, 171-178.	1.1	21
637	Structure Design and Dynamic Model Analysis of Multi-degree-of-freedom Exoskeleton. , 2015, , .		3
638	Validation of a methodology for neuro-uological and lumbosacral stimulation studies in domestic pigs: a humanlike animal model. <i>Journal of Neurosurgery: Spine</i> , 2019, 30, 644-654.	0.9	4
639	Lower-Limb Neuroprostheses. <i>Advances in Bioinformatics and Biomedical Engineering Book Series</i> , 0, , 153-180.	0.2	4
640	Propriospinal interneurons in the spotlight for anatomical and functional recovery after spinal cord injury Sensory regeneration in dorsal root avulsion. <i>Neural Regeneration Research</i> , 2015, 10, 1737.	1.6	4
641	Advancements in the mind-machine interface: towards re-establishment of direct cortical control of limb movement in spinal cord injury. <i>Neural Regeneration Research</i> , 2016, 11, 1060.	1.6	3
642	Motor neuroprosthesis for injured spinal cord: who is an ideal candidate?. <i>Neural Regeneration Research</i> , 2017, 12, 1809.	1.6	8
643	Differences in neuroplasticity after spinal cord injury in varying animal models and humans. <i>Neural Regeneration Research</i> , 2019, 14, 7.	1.6	56
644	What does "Disruptive" mean? Thoughts on the NIH SCI 2020 meeting. <i>Neural Regeneration Research</i> , 2019, 14, 1527.	1.6	2

#	ARTICLE	IF	CITATIONS
645	Sensorimotor Regulation of Movements: Novel Strategies for the Recovery of Mobility. Human Physiology, 2016, 42, 106-117.	0.1	2
646	Neuromodulation as a basic platform for neuroprotection and repair after spinal cord injury. Progress in Brain Research, 2021, 266, 269-300.	0.9	4
647	The functional state of the neuromotor system during hypogravity in a rat. Support load effects. IOP Conference Series: Earth and Environmental Science, 2021, 853, 012030.	0.2	0
648	The intractable problems with brain death and possible solutions. Philosophy, Ethics, and Humanities in Medicine, 2021, 16, 11.	0.7	15
649	Newly regenerated axons via scaffolds promote sub-lesional reorganization and motor recovery with epidural electrical stimulation. Npj Regenerative Medicine, 2021, 6, 66.	2.5	12
650	The Immediate and Short-Term Effects of Transcutaneous Spinal Cord Stimulation and Peripheral Nerve Stimulation on Corticospinal Excitability. Frontiers in Neuroscience, 2021, 15, 749042.	1.4	5
651	Voluntary Modulation of Evoked Responses Generated by Epidural and Transcutaneous Spinal Stimulation in Humans with Spinal Cord Injury. Journal of Clinical Medicine, 2021, 10, 4898.	1.0	13
652	A Controlled Clinical Study of Intensive Neurorehabilitation in Post-Surgical Dogs with Severe Acute Intervertebral Disc Extrusion. Animals, 2021, 11, 3034.	1.0	13
653	Complex Electrical Stimulation Systems in Motor Function Rehabilitation after Spinal Cord Injury. Complexity, 2021, 2021, 1-16.	0.9	3
654	Epidural spinal cord stimulation as an intervention for motor recovery after motor complete spinal cord injury. Journal of Neurophysiology, 2021, 126, 1843-1859.	0.9	26
655	Stem cell-derived neuronal relay strategies and functional electrical stimulation for treatment of spinal cord injury. Biomaterials, 2021, 279, 121211.	5.7	24
656	Multisystem Neurorehabilitation in Rodents with Spinal Cord Injury. , 2012, , 3-21.		0
657	Epidural Stimulation. , 2013, , 1-3.		0
658	Spinal Interfaces: Overview. , 2014, , 1-5.		0
659	Brain-Machine Interface: Overview. , 2014, , 1-10.		1
660	Locomotor training using a wearable robot in patients with neurological disorders. The Journal of Physical Fitness and Sports Medicine, 2014, 3, 249-253.	0.2	0
661	Spinal Interfaces: Overview. , 2014, , 1-5.		0
662	Scar Removal, Cell Transplantation, and Locomotor Training- Strategies to Improve Tissue Repair and Functional Recovery in Rat with Chronic Spinal Cord Injury. International Journal of Physical Medicine & Rehabilitation, 2014, 02, .	0.5	1

#	ARTICLE	IF	CITATIONS
663	Human Single Unit Activity for Reach and Grasp Motor Prostheses. , 2014, , 305-326.		0
664	Aktueller Stand der Forschung. , 2015, , 67-72.		0
665	Spinal Interfaces: Overview. , 2015, , 104-108.		0
666	Spinal Cord Plasticity and Neuromodulation After SCI. Biosystems and Biorobotics, 2016, , 145-168.	0.2	0
667	Multisystem Neurorehabilitation in Rodents with Spinal Cord Injury. , 2016, , 59-77.		1
668	Spinal Cord Stimulation for a Patient with Lower Extremity Pain due to Multiple Nerve Root Tumor associated with Neurofibromatosis Type 1. Japanese Journal of Neurosurgery, 2016, 25, 773-776.	0.0	0
669	Attempts to Reorganize Locomotor Function Using Spinal Stimulation in individuals with Severe Spinal Cord Injury. Spinal Surgery, 2016, 30, 83-87.	0.0	0
670	Tapping the Neural Circuitry: Surface Spinal Stimulation in Spinal Cord Injury: a Case Report. Journal of Exercise Science and Physiotherapy, 2016, 12, .	0.0	1
671	Spinal Cord and Peripheral Nerve Regeneration Current Research and Future Possibilities. , 2017, , 357-389.		0
672	Neuromuscular Control Models of Human Locomotion. , 2017, , 1-30.		0
673	A fuzzy controller for movement stabilization using afferent control: Controller synthesis and simulation. Journal of Medical Signals and Sensors, 2017, 7, 239.	0.5	0
674	Interfacing Engineering Technology and Rehabilitation: A New Frontier for Physical Therapy. , 2017, , 1-12.		0
675	Spasticity. , 2017, , 303-324.		0
676	Restoring Spinal Motor Function Using a Neural Interface. Spinal Surgery, 2017, 31, 236-241.	0.0	0
677	Estimulaci3n de la m3dula espinal: una nueva estrategia terap3utica para restaurar la funci3n motora. Ars Medica, 2017, 42, .	0.1	0
678	Combination of Functional Electrical Stimulation and Noninvasive Spinal Cord Electrical Stimulation for Movement Rehabilitation of the Children with Cerebral Palsy. , 2018, , 551-561.		0
680	Brain Machine Interface Mediated Neurorehabilitation for Gait Recovery. The Japanese Journal of Rehabilitation Medicine, 2018, 55, 761-766.	0.0	0
681	Techniques of Surgery for Lumbar Spinal Stenosis: A Comparative Study. Open Journal of Modern Neurosurgery, 2019, 09, 78-104.	0.0	0

#	ARTICLE	IF	CITATIONS
683	Activation of the primary motor cortex using fully implanted electrical sciatic nerve stimulation. <i>Experimental and Therapeutic Medicine</i> , 2019, 18, 3357-3364.	0.8	1
686	Complex Restorative Treatment of Patients with Post-Traumatic Tetraparesis. <i>Visnyk Ortopedii Travmatologii Protezuvannia</i> , 2020, , 64-71.	0.1	0
688	Doctors™ health & performance. , 2020, , 860-879.		0
690	Ear, nose, and throat. , 2020, , 384-431.		0
692	Epidural electrical stimulation to facilitate locomotor recovery after spinal cord injury. <i>Journal of Neurophysiology</i> , 2021, 126, 1751-1755.	0.9	1
693	Motor improvements enabled by spinal cord stimulation combined with physical training after spinal cord injury: review of experimental evidence in animals and humans. <i>Bioelectronic Medicine</i> , 2021, 7, 16.	1.0	25
694	Brain-Machine Interface: Overview. , 2021, , 1-8.		1
695	Rehabilitation of Spinal Cord Injury: WFNS Spine Committee Recommendations. <i>Neurospine</i> , 2020, 17, 820-832.	1.1	8
696	Therapeutic acute intermittent hypoxia: A translational roadmap for spinal cord injury and neuromuscular disease. <i>Experimental Neurology</i> , 2022, 347, 113891.	2.0	39
699	Spinal Interfaces: Overview. , 2020, , 1-8.		0
700	Cortical and Subcortical Plasticity After Sensory Loss in the Somatosensory System of Primates. , 2020, , 399-418.		1
702	A Fuzzy Controller for Movement Stabilization Using Afferent Control: Controller Synthesis and Simulation. <i>Journal of Medical Signals and Sensors</i> , 2017, 7, 239-246.	0.5	0
703	Intraspinal stimulation with a silicon-based 3D chronic microelectrode array for bladder voiding in cats. <i>Journal of Neural Engineering</i> , 2020, , .	1.8	5
704	Toward rebalancing blood pressure instability after spinal cord injury with spinal cord electrical stimulation: A mini review and critique of the evolving literature. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2022, 237, 102905.	1.4	6
705	Invasive and Non-Invasive Approaches of Electrical Stimulation to Improve Physical Functioning after Spinal Cord Injury. <i>Journal of Clinical Medicine</i> , 2021, 10, 5356.	1.0	10
706	Current progress of rehabilitative strategies in stem cell therapy for spinal cord injury: a review. <i>Npj Regenerative Medicine</i> , 2021, 6, 81.	2.5	20
707	Posteroanterior Cervical Transcutaneous Spinal Cord Stimulation: Interactions with Cortical and Peripheral Nerve Stimulation. <i>Journal of Clinical Medicine</i> , 2021, 10, 5304.	1.0	7
708	Spinal cord imaging markers and recovery of standing with epidural stimulation in individuals with clinically motor complete spinal cord injury. <i>Experimental Brain Research</i> , 2022, 240, 279-288.	0.7	12

#	ARTICLE	IF	CITATIONS
709	Silencing long ascending propriospinal neurons after spinal cord injury improves hindlimb stepping in the adult rat. <i>ELife</i> , 2021, 10, .	2.8	17
710	Magnetolectric Bio-Implants Powered and Programmed by a Single Transmitter for Coordinated Multisite Stimulation. <i>IEEE Journal of Solid-State Circuits</i> , 2022, 57, 818-830.	3.5	9
711	MRI metrics at the epicenter of spinal cord injury are correlated with the stepping process in rhesus monkeys. <i>Experimental Animals</i> , 2022, 71, 139-149.	0.7	3
712	New Therapy for Spinal Cord Injury: Autologous Genetically-Enriched Leucoconcentrate Integrated with Epidural Electrical Stimulation. <i>Cells</i> , 2022, 11, 144.	1.8	8
713	Editorial: Advances in Spinal Cord Epidural Stimulation for Motor and Autonomic Functions Recovery After Severe Spinal Cord Injury. <i>Frontiers in Systems Neuroscience</i> , 2021, 15, 820913.	1.2	0
714	Context-independent encoding of passive and active self-motion in vestibular afferent fibers during locomotion in primates. <i>Nature Communications</i> , 2022, 13, 120.	5.8	8
715	Rehabilitative training paired with peripheral stimulation promotes motor recovery after ischemic cerebral stroke. <i>Experimental Neurology</i> , 2022, 349, 113960.	2.0	9
717	Pre-hospital emergency medicine. , 2020, , 624-655.		0
718	General practice. , 2020, , 774-841.		0
722	Eponymous syndromes. , 2020, , 842-859.		0
724	Orthopaedics. , 2020, , 462-519.		1
728	Gynaecology. , 2020, , 104-177.		0
729	Intraspinal stimulation with a silicon-based 3D chronic microelectrode array for bladder voiding in cats. <i>Journal of Neural Engineering</i> , 2020, , .	1.8	11
730	Neural Substrates of Transcutaneous Spinal Cord Stimulation: Neuromodulation across Multiple Segments of the Spinal Cord. <i>Journal of Clinical Medicine</i> , 2022, 11, 639.	1.0	8
731	Neuroplasticity of spinal cord injury and repair. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2022, 184, 317-330.	1.0	17
732	Targeting Sensory and Motor Integration for Recovery of Movement After CNS Injury. <i>Frontiers in Neuroscience</i> , 2021, 15, 791824.	1.4	9
733	Neuroprotective Role of Hypothermia in Acute Spinal Cord Injury. <i>Biomedicines</i> , 2022, 10, 104.	1.4	1
734	Transcutaneous spinal cord stimulation combined with locomotor training to improve walking ability in people with chronic spinal cord injury: study protocol for an international multi-centred double-blinded randomised sham-controlled trial (eWALK). <i>Spinal Cord</i> , 2022, 60, 491-497.	0.9	3

#	ARTICLE	IF	CITATIONS
735	Closed-Loop, Cervical, Epidural Stimulation Elicits Respiratory Neuroplasticity after Spinal Cord Injury in Freely Behaving Rats. <i>ENeuro</i> , 2022, 9, ENEURO.0426-21.2021.	0.9	5
736	Nerve root magnetic stimulation improves locomotor function following spinal cord injury with electrophysiological improvements and cortical synaptic reconstruction. <i>Neural Regeneration Research</i> , 2022, 17, 2036.	1.6	7
737	Activity-dependent spinal cord neuromodulation rapidly restores trunk and leg motor functions after complete paralysis. <i>Nature Medicine</i> , 2022, 28, 260-271.	15.2	174
738	Utility and Feasibility of Transcutaneous Spinal Cord Stimulation for Patients With Incomplete SCI in Therapeutic Settings: A Review of Topic. <i>Frontiers in Rehabilitation Sciences</i> , 0, 2, .	0.5	6
741	Epidural Spinal Stimulation Enables Global Sensorimotor and Autonomic Function Recovery After Complete Paralysis: A Study From India. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2022, 30, 2052-2059.	2.7	6
742	Spinal Cord Stimulation Research in the Restoration of Motor, Sensory, and Autonomic Function for Individuals Living With Spinal Cord Injuries: A Scoping Review. <i>Archives of Physical Medicine and Rehabilitation</i> , 2022, 103, 1387-1397.	0.5	15
743	Developing Novel Therapies for Degenerative Cervical Myelopathy [AO Spine RECODE-DCM Research Priority Number 7]: Opportunities From Restorative Neurobiology. <i>Global Spine Journal</i> , 2022, 12, 109S-121S.	1.2	8
745	Spinal cord bioelectronic interfaces: opportunities in neural recording and clinical challenges. <i>Journal of Neural Engineering</i> , 2022, 19, 021003.	1.8	2
746	Spinal cord stimulation and cauda equina syndrome: Could it be a valid option? A report of two cases. <i>NeurocirugÃa (English Edition)</i> , 2022, 33, 90-94.	0.1	1
748	The Impact of Spinal Cord Neuromodulation on Restoration of Walking Ability After Spinal Cord Injury. <i>Neurospine</i> , 2022, 19, 244-245.	1.1	2
749	Control of Forelimb and Hindlimb Movements and Their Coordination during Quadrupedal Locomotion across Speeds in Adult Spinal Cats. <i>Journal of Neurotrauma</i> , 2022, 39, 1113-1131.	1.7	7
750	Rehabilitation of People With Chronic Spinal Cord Injury Using a Laparoscopically Implanted Neurostimulator: Impact on Mobility and Urinary, Anorectal, and Sexual Functions. <i>Neuromodulation</i> , 2022, , .	0.4	5
751	Characterization of interlimb interaction via transcutaneous spinal stimulation of cervical and lumbar spinal enlargements. <i>Journal of Neurophysiology</i> , 2022, 127, 1075-1085.	0.9	2
752	Transcutaneous spinal stimulation alters cortical and subcortical activation patterns during mimicked-standing: A proof-of-concept fMRI study. <i>NeuroImage Reports</i> , 2022, 2, 100090.	0.5	4
753	Characterization of Spinal Sensorimotor Network Using Transcutaneous Spinal Stimulation during Voluntary Movement Preparation and Performance. <i>Journal of Clinical Medicine</i> , 2021, 10, 5958.	1.0	8
754	When Spinal Neuromodulation Meets Sensorimotor Rehabilitation: Lessons Learned From Animal Models to Regain Manual Dexterity After a Spinal Cord Injury. <i>Frontiers in Rehabilitation Sciences</i> , 2021, 2, .	0.5	4
755	Neurotransmitter phenotype switching by spinal excitatory interneurons regulates locomotor recovery after spinal cord injury. <i>Nature Neuroscience</i> , 2022, 25, 617-629.	7.1	25
756	Advances in Epidural Spinal Cord Stimulation to Restore Function after Spinal Cord Injury: History and Systematic Review. <i>Journal of Neurotrauma</i> , 2022, 39, 1015-1029.	1.7	6

#	ARTICLE	IF	CITATIONS
757	The Effect of Transcutaneous Electrical Spinal Cord Stimulation on the Functional Activity of Spinal Inhibition in the System of Synergistic Muscles of the Lower Leg in Humans. <i>Human Physiology</i> , 2022, 48, 121-133.	0.1	2
781	Noninvasive spinal neuromodulation mitigates symptoms of idiopathic overactive bladder. <i>Bioelectronic Medicine</i> , 2022, 8, 5.	1.0	1
782	Spatiotemporal Distribution of Electrically Evoked Spinal Compound Action Potentials During Spinal Cord Stimulation. <i>Neuromodulation</i> , 2023, 26, 961-974.	0.4	5
783	Transhemispheric cortex remodeling promotes forelimb recovery after spinal cord injury. <i>JCI Insight</i> , 2022, 7, .	2.3	4
784	Robotic upright stand trainer (RobUST) and postural control in individuals with spinal cord injury. <i>Journal of Spinal Cord Medicine</i> , 2023, 46, 889-899.	0.7	3
786	The past, present, and future of traumatic spinal cord injury therapies: a review. <i>Bone & Joint Open</i> , 2022, 3, 348-358.	1.1	6
787	Conducting molybdenum sulfide/graphene oxide/polyvinyl alcohol nanocomposite hydrogel for repairing spinal cord injury. <i>Journal of Nanobiotechnology</i> , 2022, 20, 210.	4.2	22
788	Electroceuticals and respiratory recovery: is there a place for electrical spinal stimulation in opioid-induced respiratory depression?. <i>Journal of Physiology</i> , 2022, 600, 2829-2830.	1.3	0
789	Editorial: Neuroplasticity in Rehabilitation. <i>Frontiers in Rehabilitation Sciences</i> , 2022, 3, .	0.5	0
790	Spinal cord epidural stimulation for autonomic nervous system control: A focus on improving bladder, bowel, and cardiovascular function. , 2022, , 229-243.		0
791	Treating spinal cord injury with implanted spinal cord stimulators. , 2022, , 245-258.		0
792	Neuromodulation and restoration of motor responses after severe spinal cord injury. , 2022, , 51-63.		2
793	Poststroke arm and hand paresis: should we target the cervical spinal cord?. <i>Trends in Neurosciences</i> , 2022, 45, 568-578.	4.2	12
794	Stochastic spinal neuromodulation tunes the intrinsic logic of spinal neural networks. <i>Experimental Neurology</i> , 2022, 355, 114138.	2.0	3
796	The Effect of Transcutaneous Spinal Cord Stimulation on Standing Postural Control in Healthy Adults. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 8268-8275.	3.3	2
797	Effects of transcutaneous spinal stimulation on spatiotemporal cortical activation patterns: a proof-of-concept EEG study. <i>Journal of Neural Engineering</i> , 2022, 19, 046001.	1.8	4
798	The safety of epidural spinal cord stimulation to restore function after spinal cord injury: post-surgical complications and incidence of cardiovascular events. <i>Spinal Cord</i> , 2022, 60, 903-910.	0.9	9
799	Brain-Machine Interface: Overview. , 2022, , 12-19.		0

#	ARTICLE	IF	CITATIONS
800	Spinal Interfaces: Overview. , 2022, , 120-127.		0
801	Paraspinal Magnetic and Transcutaneous Electrical Stimulation. , 2022, , 2581-2599.		0
802	Epidural Stimulation. , 2022, , 1322-1325.		0
803	Novel Noninvasive Spinal Neuromodulation Strategy Facilitates Recovery of Stepping after Motor Complete Paraplegia. Journal of Clinical Medicine, 2022, 11, 3670.	1.0	14
805	Stereotaxic Atlas of the Human Lumbar - Sacral Spinal Cord. World Neurosurgery, 2022, , .	0.7	0
806	Repeated motor cortex theta-burst stimulation produces persistent strengthening of corticospinal motor output and durable spinal cord structural changes in the rat. Brain Stimulation, 2022, 15, 1013-1022.	0.7	5
807	Targeting bladder function with network-specific epidural stimulation after chronic spinal cord injury. Scientific Reports, 2022, 12, .	1.6	12
808	Effect of epidural spinal cord stimulation after chronic spinal cord injury on volitional movement and cardiovascular function: study protocol for the phase II open label controlled E-STAND trial. BMJ Open, 2022, 12, e059126.	0.8	3
809	Hypertrophy of paravertebral muscles after epidural electrical stimulation shifted: A case report. Frontiers in Surgery, 0, 9, .	0.6	0
810	Historical development and contemporary use of neuromodulation in human spinal cord injury. Current Opinion in Neurology, 2022, 35, 536-543.	1.8	6
811	Spinal electrical stimulation to improve sympathetic autonomic functions needed for movement and exercise after spinal cord injury: a scoping clinical review. Journal of Neurophysiology, 2022, 128, 649-670.	0.9	7
813	Case report: Ultrasound-guided multi-site electroacupuncture stimulation for a patient with spinal cord injury. Frontiers in Neurology, 0, 13, .	1.1	0
814	Chemogenetic modulation of sensory afferents induces locomotor changes and plasticity after spinal cord injury. Frontiers in Molecular Neuroscience, 0, 15, .	1.4	4
815	Chronic muscle recordings reveal recovery of forelimb function in spinal injured female rats after cortical epidural stimulation combined with rehabilitation and chondroitinase ABC. Journal of Neuroscience Research, 2022, 100, 2055-2076.	1.3	4
816	Activity-dependent plasticity and spinal cord stimulation for motor recovery following spinal cord injury. Experimental Neurology, 2022, 357, 114178.	2.0	13
817	Policy Design for an Ankle-Foot Orthosis Using Simulated Physical Human-Robot Interaction via Deep Reinforcement Learning. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 2186-2197.	2.7	7
818	Spinal automaticity of movement control and its role in recovering function after spinal injury. Expert Review of Neurotherapeutics, 2022, 22, 655-667.	1.4	3
819	Neurorestoratology: New Advances in Clinical Therapy. CNS and Neurological Disorders - Drug Targets, 2023, 22, 1031-1038.	0.8	5

#	ARTICLE	IF	CITATIONS
820	Single Lead Epidural Spinal Cord Stimulation Targeted Trunk Control and Standing in Complete Paraplegia. <i>Journal of Clinical Medicine</i> , 2022, 11, 5120.	1.0	8
821	Fast inference of spinal neuromodulation for motor control using amortized neural networks. <i>Journal of Neural Engineering</i> , 2022, 19, 056037.	1.8	3
822	Activation of human spinal locomotor circuitry using transvertebral magnetic stimulation. <i>Frontiers in Human Neuroscience</i> , 0, 16, .	1.0	2
823	A Review of Functional Restoration From Spinal Cord Stimulation in Patients With Spinal Cord Injury. <i>Neurospine</i> , 2022, 19, 703-734.	1.1	12
824	Bioelectronic medicine: Preclinical insights and clinical advances. <i>Neuron</i> , 2022, 110, 3627-3644.	3.8	28
827	Individual finger movement decoding using a novel ultra-high-density electroencephalography-based brain-computer interface system. <i>Frontiers in Neuroscience</i> , 0, 16, .	1.4	12
828	Non-invasive brain-spine interface: Continuous control of trans-spinal magnetic stimulation using EEG. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .	2.0	4
829	Integrated Neuroregenerative Techniques for Plasticity of the Injured Spinal Cord. <i>Biomedicines</i> , 2022, 10, 2563.	1.4	3
830	Spinal stimulation for motor rehabilitation immediately modulates nociceptive transmission. <i>Journal of Neural Engineering</i> , 2022, 19, 056046.	1.8	4
831	When the whole is greater than the sum of its parts: a scoping review of activity-based therapy paired with spinal cord stimulation following spinal cord injury. <i>Journal of Neurophysiology</i> , 2022, 128, 1292-1306.	0.9	5
832	Spinal Cord Stimulation to Enable Leg Motor Control and Walking in People with Spinal Cord Injury. , 2022, , 369-399.		3
833	Neurotechnology's Prospects for Bringing About Meaningful Reductions in Neurological Impairment. <i>Neurorehabilitation and Neural Repair</i> , 2023, 37, 356-366.	1.4	3
834	High-density spinal cord stimulation selectively activates lower urinary tract nerves. <i>Journal of Neural Engineering</i> , 0, , .	1.8	1
835	Neurons that promote recovery from paralysis identified. <i>Nature</i> , 2022, 611, 452-453.	13.7	2
836	Restoring After Central Nervous System Injuries: Neural Mechanisms and Translational Applications of Motor Recovery. <i>Neuroscience Bulletin</i> , 2022, 38, 1569-1587.	1.5	12
837	Natural and targeted circuit reorganization after spinal cord injury. <i>Nature Neuroscience</i> , 2022, 25, 1584-1596.	7.1	27
838	Spinal interneurons post-injury. , 2023, , 343-366.		0
839	Human spinal networks. , 2023, , 311-341.		0

#	ARTICLE	IF	CITATIONS
840	Propriospinal neurons as relay pathways from brain to spinal cord. , 2023, , 207-225.		0
841	Changes in motor outputs after spinal cord injury. , 2023, , 227-250.		1
842	Spinal interneurons, motor synergies, and modularity. , 2023, , 171-203.		1
843	Real-Time Gait Phase Detection on Wearable Devices for Real-World Free-Living Gait. IEEE Journal of Biomedical and Health Informatics, 2023, 27, 1295-1306.	3.9	4
844	Regulation of Human Respiration by Electrical Stimulation. Journal of Evolutionary Biochemistry and Physiology, 2022, 58, 1879-1891.	0.2	0
845	Mapping Spinal Cord Stimulation-Evoked Muscle Responses in Patients With Chronic Spinal Cord Injury. Neuromodulation, 2023, 26, 1371-1380.	0.4	2
846	Effects of non-invasive spinal cord stimulation on lower urinary tract, bowel, and sexual functions in individuals with chronic motor-complete spinal cord injury: Protocol for a pilot clinical trial. PLoS ONE, 2022, 17, e0278425.	1.1	4
847	Using a high-frequency carrier does not improve comfort of transcutaneous spinal cord stimulation. Journal of Neural Engineering, 2023, 20, 016016.	1.8	7
848	Approach to Small Animal Neurorehabilitation by Locomotor Training: An Update. Animals, 2022, 12, 3582.	1.0	3
849	Sensory-motor coupling electrical stimulation driven by a bionic Zâ€structured triboelectric nanogenerator improves functional recovery from spinal cord injury. Nano Energy, 2023, 107, 108133.	8.2	6
850	Physiological effects of cathodal electrode configuration for transspinal stimulation in humans. Journal of Neurophysiology, 2022, 128, 1663-1682.	0.9	8
851	Neuroanatomical mapping of the lumbosacral spinal cord in individuals with chronic spinal cord injury. Brain Communications, 2022, 5, .	1.5	7
852	Transcutaneous Spinal Stimulation From Adults to Children: A Review. Topics in Spinal Cord Injury Rehabilitation, 2023, 29, 16-32.	0.8	6
853	Tuning of motor outputs produced by spinal stimulation during voluntary control of torque directions in monkeys. ELife, 0, 11, .	2.8	1
854	Neuroprosthetics: from sensorimotor to cognitive disorders. Communications Biology, 2023, 6, .	2.0	19
855	A Fully Implantable and Programmable Epidural Spinal Cord Stimulation System for Rats With Spinal Cord Injury. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2023, 31, 818-828.	2.7	3
856	Neuromodulation Through Spinal Cord Stimulation Restores Ability to Voluntarily Cycle After Motor Complete Paraplegia. Journal of Neurotrauma, 0, , .	1.7	1
857	Artificial Sensory Feedback to the Brain: Somatosensory Feedback for Neural Devices and BCI. , 2023, , 1261-1283.		0

#	ARTICLE	IF	CITATIONS
858	Human muscle and spinal activation in response to body weight loading. <i>Journal of Anatomy</i> , 2023, 242, 745-753.	0.9	1
859	Epidural stimulation of the cervical spinal cord for post-stroke upper-limb paresis. <i>Nature Medicine</i> , 2023, 29, 689-699.	15.2	44
860	Exercise therapy guides cortical reorganization after midthoracic spinal contusion to enhance control of lower thoracic muscles, supporting functional recovery. <i>Experimental Neurology</i> , 2023, 364, 114394.	2.0	2
864	Altered cutaneous reflexes to non-noxious stimuli in the triceps surae of people with chronic incomplete spinal cord injury. <i>Journal of Neurophysiology</i> , 2023, 129, 513-523.	0.9	1
865	Combined cervical transcutaneous with lumbosacral epidural stimulation improves voluntary control of stepping movements in spinal cord injured individuals. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 11, .	2.0	2
866	Electrical stimulation for the treatment of spinal cord injuries: A review of the cellular and molecular mechanisms that drive functional improvements. <i>Frontiers in Cellular Neuroscience</i> , 0, 17, .	1.8	10
867	Effects of percutaneously-implanted epidural stimulation on cardiovascular autonomic function and spasticity after complete spinal cord injury: A case report. <i>Frontiers in Neuroscience</i> , 0, 17, .	1.4	4
868	Transcutaneous Cervical Spinal Cord Stimulation Combined with Robotic Exoskeleton Rehabilitation for the Upper Limbs in Subjects with Cervical SCI: Clinical Trial. <i>Biomedicine</i> , 2023, 11, 589.	1.4	2
875	Central Nervous Stimulation for Neurogenic Lower Urinary Tract Dysfunction: Current Application and Emergent Therapies. <i>Current Bladder Dysfunction Reports</i> , 0, , .	0.2	0
878	Characterization and applications of evoked responses during epidural electrical stimulation. <i>Bioelectronic Medicine</i> , 2023, 9, .	1.0	3
879	Corticospinal interface to restore voluntary control of joint torque in a paralyzed forearm following spinal cord injury in non-human primates. <i>Frontiers in Neuroscience</i> , 0, 17, .	1.4	0
880	Spinal cord epidural stimulation for motor and autonomic function recovery after chronic spinal cord injury: A case series and technical note. , 0, 14, 87.		3
882	A fresh look at propriospinal interneurons plasticity and intraspinal circuits remodeling after spinal cord injury. <i>IBRO Neuroscience Reports</i> , 2023, 14, 441-446.	0.7	0
884	Effect of epidural spinal cord stimulation on female sexual function after spinal cord injury. <i>Frontiers in Neuroscience</i> , 0, 17, .	1.4	1
885	Neuromodulation and quality of life for patient with spasticity after spinal cord injury. <i>International Review of Neurobiology</i> , 2023, , 79-99.	0.9	0
886	A case study of percutaneous epidural stimulation to enable motor control in two men after spinal cord injury. <i>Nature Communications</i> , 2023, 14, .	5.8	3
887	Beyond treatment of chronic pain: a scoping review about epidural electrical spinal cord stimulation to restore sensorimotor and autonomic function after spinal cord injury. <i>Neurological Research and Practice</i> , 2023, 5, .	1.0	0
888	Automated Tools to Improve Spinal Cord Injury Outcomes with Epidural Stimulation. , 2023, , .		0

#	ARTICLE	IF	CITATIONS
897	Impact of spinal neuromodulation on spinal neural networks controlling lower urinary tract function. , 2023, , 209-218.		0
899	Advances in Neurorestoratologyâ€™Current status and future developments. International Review of Neurobiology, 2023, , 207-239.	0.9	2
905	Spinal cord injury: molecular mechanisms and therapeutic interventions. Signal Transduction and Targeted Therapy, 2023, 8, .	7.1	31
922	Spinal cord motor disorders. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2023, , 3-42.	1.0	0
923	Editorial: Hot topics in cellular neuropathology, volume II: promoting neuronal plasticity in the injured central nervous system. Frontiers in Cellular Neuroscience, 0, 17, .	1.8	0
948	Multiple-Mode Bi-directional Neural Interface Design for Spinal Cord to Muscle Neural Link Mapping Study. , 2023, , .		0
949	Neuroprosthesis Applications of Robotic Exoskeletons. , 0, , 93-103.		0
951	Wireless control of nerve growth using bipolar electrodes: a new paradigm in electrostimulation. Biomaterials Science, 0, , .	2.6	0