## Targeted neurotechnology restores walking in humans

Nature 563, 65-71 DOI: 10.1038/s41586-018-0649-2

Citation Report

#	Article	IF	CITATIONS
1	Reporting for Duty: The duty cycle in Functional Electrical Stimulation research. Part I: Critical commentaries of the literature. European Journal of Translational Myology, 2018, 28, 7732.	1.7	8
2	The duty cycle in Functional Electrical Stimulation research. Part II: Duty cycle multiplicity and domain reporting. European Journal of Translational Myology, 2018, 28, 7733.	1.7	8
3	Myokines in Home-Based Functional Electrical Stimulation-Induced Recovery of Skeletal Muscle in Elderly and Permanent Denervation. European Journal of Translational Myology, 2018, 28, 7905.	1.7	20
4	Innovations in electrical stimulation harness neural plasticity to restore motor function. Bioelectronics in Medicine, 2018, 1, 251-263.	2.0	5
5	A giant step for spinal cord injury research. Nature Neuroscience, 2018, 21, 1647-1648.	14.8	12
6	Differential activation of lumbar and sacral motor pools during walking at different speeds and slopes. Journal of Neurophysiology, 2019, 122, 872-887.	1.8	18
7	Neurorestorative interventions involving bioelectronic implants after spinal cord injury. Bioelectronic Medicine, 2019, 5, 10.	2.3	22
8	Spatiotemporal Stimulation Re-establishes Voluntary Control of Previously Paralyzed Muscles During Locomotion After Spinal Cord Injury. Neurosurgery, 2019, 85, E200-E202.	1.1	0
9	Electrochemical methods for analysing and controlling charge transfer at the electrode–tissue interface. Current Opinion in Electrochemistry, 2019, 16, 143-148.	4.8	8
11	Adding wisdom to †smart' bioelectronic systems: a design framework for physiologic control including practical examples. Bioelectronics in Medicine, 2019, 2, 29-41.	2.0	16
12	The Mechanistic Basis for Successful Spinal Cord Stimulation to Generate Steady Motor Outputs. Frontiers in Cellular Neuroscience, 2019, 13, 359.	3.7	4
13	Neural engineering: the process, applications, and its role in the future of medicine. Journal of Neural Engineering, 2019, 16, 063002.	3.5	14
14	Lowâ€Frequency Brain Oscillations Track Motor Recovery in Human Stroke. Annals of Neurology, 2019, 86, 853-865.	5.3	39
15	Optimizing Neuromuscular Electrical Stimulation Pulse Width and Amplitude to Promote Central Activation in Individuals With Severe Spinal Cord Injury. Frontiers in Physiology, 2019, 10, 1310.	2.8	16
16	Remarkable hand grip steadiness in individuals with complete spinal cord injury. Experimental Brain Research, 2019, 237, 3175-3183.	1.5	7
17	Neurophysiological markers predicting recovery of standing in humans with chronic motor complete spinal cord injury. Scientific Reports, 2019, 9, 14474.	3.3	23
18	Preferential activation of spinal sensorimotor networks via lateralized transcutaneous spinal stimulation in neurologically intact humans. Journal of Neurophysiology, 2019, 122, 2111-2118.	1.8	33
19	Restoration of hand function with long-term paired associative stimulation after chronic incomplete tetraplegia: a case study. Spinal Cord Series and Cases, 2019, 5, 81.	0.6	24

#	Article	IF	CITATIONS
20	Bioelectronic medicine: an unexpected path to new therapies. Journal of Internal Medicine, 2019, 286, 237-239.	6.0	13
21	Serotonergic Mechanisms in Locomotor Effects of Electrical Spinal Cord Stimulation. Human Physiology, 2019, 45, 557-564.	0.4	0
22	Alginate Hydrogels as Scaffolds and Delivery Systems to Repair the Damaged Spinal Cord. Biotechnology Journal, 2019, 14, e1900275.	3.5	49
23	Propriospinal Neurons: Essential Elements of Locomotor Control in the Intact and Possibly the Injured Spinal Cord. Frontiers in Cellular Neuroscience, 2019, 13, 512.	3.7	47
24	Recent advances in the therapeutic uses of chondroitinase ABC. Experimental Neurology, 2019, 321, 113032.	4.1	55
25	Myelin status and oligodendrocyte lineage cells over time after spinal cord injury: What do we know and what still needs to be unwrapped?. Clia, 2019, 67, 2178-2202.	4.9	58
26	God locked you in the room, but left a window open: A case report of spinal cord stimulation in locked-in syndrome. Brain Stimulation, 2019, 12, 1610-1611.	1.6	2
27	Development of neural interfaces and energy harvesters towards self-powered implantable systems for healthcare monitoring and rehabilitation purposes. Nano Energy, 2019, 65, 104039.	16.0	101
28	Quantifying the effect of trans-spinal magnetic stimulation on spinal excitability. , 2019, , .		2
29	How a revolutionary technique got people with spinal-cord injuries back on their feet. Nature, 2019, 572, 20-25.	27.8	11
30	Paired associative stimulation improves hand function after non-traumatic spinal cord injury: A case series. Clinical Neurophysiology Practice, 2019, 4, 178-183.	1.4	28
31	Spinal Cord Stimulation for Freezing of Gait: From Bench to Bedside. Frontiers in Neurology, 2019, 10, 905.	2.4	32
32	Functional organization of motor networks in the lumbosacral spinal cord of non-human primates. Scientific Reports, 2019, 9, 13539.	3.3	13
33	A shape-memory and spiral light-emitting device for precise multisite stimulation of nerve bundles. Nature Communications, 2019, 10, 2790.	12.8	33
34	Enhancing plasticity in spinal sensorimotor circuits following injuries to facilitate recovery of motor control. Current Opinion in Physiology, 2019, 8, 152-160.	1.8	2
35	Spinal cord repair: advances in biology and technology. Nature Medicine, 2019, 25, 898-908.	30.7	323
36	Investigation of Low urrent Direct Stimulation for Rehabilitation Treatment Related to Muscle Function Loss Using Selfâ€Powered TENG System. Advanced Science, 2019, 6, 1900149.	11.2	97
37	Plane-by-Plane Written, Low-Loss Polymer Optical Fiber Bragg Grating Arrays for Multiparameter Sensing in a Smart Walker. IEEE Sensors Journal, 2019, 19, 9221-9228.	4.7	22

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#	Article	IF	Citations
38	Serotonergic mechanisms in spinal cord injury. Experimental Neurology, 2019, 318, 174-191.	4.1	54
39	Effect of electrical stimulation combined with graphene-oxide-based membranes on neural stem cell proliferation and differentiation. Artificial Cells, Nanomedicine and Biotechnology, 2019, 47, 1867-1876.	2.8	52
40	Emergence of Epidural Electrical Stimulation to Facilitate Sensorimotor Network Functionality After Spinal Cord Injury. Neuromodulation, 2019, 22, 244-252.	0.8	60
41	On the reflex mechanisms of cervical transcutaneous spinal cord stimulation in human subjects. Journal of Neurophysiology, 2019, 121, 1672-1679.	1.8	39
42	Peripheral nerve bionic interface: a review of electrodes. International Journal of Intelligent Robotics and Applications, 2019, 3, 11-18.	2.8	42
43	Cbp-dependent histone acetylation mediates axon regeneration induced by environmental enrichment in rodent spinal cord injury models. Science Translational Medicine, 2019, 11, .	12.4	79
44	Effect of anesthesia on motor responses evoked by spinal neural prostheses during intraoperative procedures. Journal of Neural Engineering, 2019, 16, 036003.	3.5	11
45	Neurorehabilitation: Neural Plasticity and Functional Recovery 2018. Neural Plasticity, 2019, 2019, 1-3.	2.2	3
46	Noninvasive Modalities Used in Spinal Cord Injury Rehabilitation. , 0, , .		5
47	Towards in-silico robotic post-stroke rehabilitation for mice. , 2019, , .		1
48	Towards Restoration of Articulatory Movements: Functional Electrical Stimulation of Orofacial Muscles. , 2019, 2019, 3111-3114.		1
49	Parallel Resonant Inductive Wireless Power Transfer. , 2019, , .		2
50	The translational landscape in spinal cord injury: focus on neuroplasticity and regeneration. Nature Reviews Neurology, 2019, 15, 732-745.	10.1	180
51	Descending motor circuitry required for NT-3 mediated locomotor recovery after spinal cord injury in mice. Nature Communications, 2019, 10, 5815.	12.8	41
52	Neuroprosthetics 2.0. EBioMedicine, 2019, 48, 22.	6.1	6
53	Comparative Study of Intraspinal Microstimulation and Epidural Spinal Cord Stimulation. , 2019, 2019, 3795-3798.		3
54	The effects of FES cycling combined with virtual reality racing biofeedback on voluntary function after incomplete SCI: a pilot study. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 149.	4.6	10
55	Optimal solid state neurons. Nature Communications, 2019, 10, 5309.	12.8	47

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#	Article	IF	CITATIONS
56	Recovery cycles of posterior root-muscle reflexes evoked by transcutaneous spinal cord stimulation and of the H reflex in individuals with intact and injured spinal cord. PLoS ONE, 2019, 14, e0227057.	2.5	48
57	Enhancing rehabilitation and functional recovery after brain and spinal cord trauma with electrical neuromodulation. Current Opinion in Neurology, 2019, 32, 828-835.	3.6	44
58	Closed-Loop Neuromodulation: Listen to the Body. World Neurosurgery, 2019, 122, 415-416.	1.3	7
59	Scaffold-facilitated locomotor improvement post complete spinal cord injury: Motor axon regeneration versus endogenous neuronal relay formation. Biomaterials, 2019, 197, 20-31.	11.4	82
60	Restoring walking. Nature Reviews Neuroscience, 2019, 20, 1-1.	10.2	13
61	Current barriers and ethical considerations for clinical implementation of epidural stimulation for functional improvement after spinal cord injury. Journal of Spinal Cord Medicine, 2020, 43, 653-656.	1.4	10
62	A versatile robotic platform for the design of natural, three-dimensional reaching and grasping tasks in monkeys. Journal of Neural Engineering, 2020, 17, 016004.	3.5	10
63	Faster Gait Speeds Reduce Alpha and Beta EEG Spectral Power From Human Sensorimotor Cortex. IEEE Transactions on Biomedical Engineering, 2020, 67, 842-853.	4.2	62
64	Proprioception: Bottom-up directive for motor recovery after spinal cord injury. Neuroscience Research, 2020, 154, 1-8.	1.9	17
65	Transcutaneous Spinal Cord Stimulation Induces Temporary Attenuation of Spasticity in Individuals with Spinal Cord Injury. Journal of Neurotrauma, 2020, 37, 481-493.	3.4	87
66	Current Principles of Motor Control, with Special Reference to Vertebrate Locomotion. Physiological Reviews, 2020, 100, 271-320.	28.8	314
67	Epidural Spinal Cord Stimulation Promotes Motor Functional Recovery by Enhancing Oligodendrocyte Survival and Differentiation and by Protecting Myelin after Spinal Cord Injury in Rats. Neuroscience Bulletin, 2020, 36, 372-384.	2.9	20
68	Neuromechanical adjustments when walking with an aiding or hindering horizontal force. European Journal of Applied Physiology, 2020, 120, 91-106.	2.5	15
69	Patient-Specific Analysis of Neural Activation During Spinal Cord Stimulation for Pain. Neuromodulation, 2020, 23, 572-581.	0.8	35
70	Hindlimb motor responses evoked by microstimulation of the lumbar dorsal root ganglia during quiet standing. Journal of Neural Engineering, 2020, 17, 016019.	3.5	4
71	Posteroanterior cervical transcutaneous spinal stimulation targets ventral and dorsal nerve roots. Clinical Neurophysiology, 2020, 131, 451-460.	1.5	27
72	Flexible bioelectronics for physiological signals sensing and disease treatment. Journal of Materiomics, 2020, 6, 397-413.	5.7	28
73	Clinical Neurorestorative Therapeutic Guidelines for Spinal Cord Injury (IANR/CANR version 2019). Journal of Orthopaedic Translation, 2020, 20, 14-24.	3.9	73

#	Article	IF	CITATIONS
74	Histone deacetylase 6 inhibition restores autophagic flux to promote functional recovery after spinal cord injury. Experimental Neurology, 2020, 324, 113138.	4.1	37
75	A Review of Different Stimulation Methods for Functional Reconstruction and Comparison of Respiratory Function after Cervical Spinal Cord Injury. Applied Bionics and Biomechanics, 2020, 2020, 1-12.	1.1	8
76	Epidural Electrical Stimulation: A Review of Plasticity Mechanisms That Are Hypothesized to Underlie Enhanced Recovery From Spinal Cord Injury With Stimulation. Frontiers in Molecular Neuroscience, 2020, 13, 163.	2.9	32
77	Polymer-Based Scaffold Strategies for Spinal Cord Repair and Regeneration. Frontiers in Bioengineering and Biotechnology, 2020, 8, 590549.	4.1	17
78	Mapping of the Spinal Sensorimotor Network by Transvertebral and Transcutaneous Spinal Cord Stimulation. Frontiers in Systems Neuroscience, 2020, 14, 555593.	2.5	5
79	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. Spinal Cord Series and Cases, 2020, 6, 96.	0.6	6
80	The Translesional Spinal Network and Its Reorganization after Spinal Cord Injury. Neuroscientist, 2022, 28, 163-179.	3.5	16
81	Plasticity and Adaptation in Neuromorphic Biohybrid Systems. IScience, 2020, 23, 101589.	4.1	26
82	Dynamic Functional Connectivity of Resting-State Spinal Cord fMRI Reveals Fine-Grained Intrinsic Architecture. Neuron, 2020, 108, 424-435.e4.	8.1	38
83	Resveratrol-primed exosomes strongly promote the recovery of motor function in SCI rats by activating autophagy and inhibiting apoptosis via the PI3K signaling pathway. Neuroscience Letters, 2020, 736, 135262.	2.1	35
84	Intelligent Control of a Spinal Prosthesis to Restore Walking After Neural Injury: Recent Work and Future Possibilities. Journal of Medical Robotics Research, 2020, 05, 2041003.	1.2	4
85	Spatiotemporal Maps of Proprioceptive Inputs to the Cervical Spinal Cord During Three-Dimensional Reaching and Grasping. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 1668-1677.	4.9	8
86	Acute Traumatic and Ischemic Spinal Cord Injuries Have a Comparable Course of Recovery. Neurorehabilitation and Neural Repair, 2020, 34, 723-732.	2.9	10
87	Recent advances in bioelectronics chemistry. Chemical Society Reviews, 2020, 49, 7978-8035.	38.1	54
88	Selective Antagonism of A1 Adenosinergic Receptors Strengthens the Neuromodulation of the Sensorimotor Network During Epidural Spinal Stimulation. Frontiers in Systems Neuroscience, 2020, 14, 44.	2.5	6
89	Chronic nerve health following implantation of femoral nerve cuff electrodes. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 95.	4.6	10
90	Spinal Cord Imaging Markers and Recovery of Volitional Leg Movement With Spinal Cord Epidural Stimulation in Individuals With Clinically Motor Complete Spinal Cord Injury. Frontiers in Systems Neuroscience, 2020, 14, 559313.	2.5	25
91	Neural decoding of continuous upper limb movements: a meta-analysis. Disability and Rehabilitation: Assistive Technology, 2022, 17, 731-737.	2.2	0

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#	ARTICLE	IF	CITATIONS
92	Feasibility and utility of transcutaneous spinal cord stimulation combined with walking-based therapy for people with motor incomplete spinal cord injury. Spinal Cord Series and Cases, 2020, 6, 104.	0.6	20
93	Hybrid Human-Machine Interface for Gait Decoding Through Bayesian Fusion of EEG and EMG Classifiers. Frontiers in Neurorobotics, 2020, 14, 582728.	2.8	36
94	Spinal cord injury: pathophysiology and strategies for regeneration. Orthopaedics and Trauma, 2020, 34, 266-271.	0.4	3
95	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. Neuromodulation, 2021, 24, 779-793.	0.8	8
96	The evolution of nerve transfers for spinal cord injury. Experimental Neurology, 2020, 333, 113426.	4.1	18
97	Ethical and Social Aspects of Neurorobotics. Science and Engineering Ethics, 2020, 26, 2533-2546.	2.9	13
98	Developing Collaborative Platforms to Advance Neurotechnology and Its Translation. Neuron, 2020, 108, 286-301.	8.1	29
99	Guidelines to Study and Develop Soft Electrode Systems for Neural Stimulation. Neuron, 2020, 108, 238-258.	8.1	49
100	Combined Supra- and Sub-Lesional Epidural Electrical Stimulation for Restoration of the Motor Functions after Spinal Cord Injury in Mini Pigs. Brain Sciences, 2020, 10, 744.	2.3	12
101	The Effects of Adding Transcutaneous Spinal Cord Stimulation (tSCS) to Sit-To-Stand Training in People with Spinal Cord Injury: A Pilot Study. Journal of Clinical Medicine, 2020, 9, 2765.	2.4	23
102	Rapid prototyping of soft bioelectronic implants for use as neuromuscular interfaces. Nature Biomedical Engineering, 2020, 4, 1010-1022.	22.5	78
103	Three-dimensional Map of Lumbar Spinal Cord Motor Function for Intraspinal Microstimulation in Rats. , 2020, 2020, 3525-3528.		1
104	Developmental bioengineering: recapitulating development for repair. Molecular Systems Design and Engineering, 2020, 5, 1168-1180.	3.4	2
105	Functional Electrical Stimulation and the Modulation of the Axon Regeneration Program. Frontiers in Cell and Developmental Biology, 2020, 8, 736.	3.7	18
106	Organic electronics for neuroprosthetics. Healthcare Technology Letters, 2020, 7, 52-57.	3.3	10
107	Rehabilitation: mobility, exercise & sports; a critical position stand on current and future research perspectives. Disability and Rehabilitation, 2020, 43, 1-16.	1.8	6
108	Epidural Electrical Stimulation of the Lumbosacral Spinal Cord Improves Trunk Stability During Seated Reaching in Two Humans With Severe Thoracic Spinal Cord Injury. Frontiers in Systems Neuroscience, 2020, 14, 79.	2.5	20
109	Miniaturised Wireless Power Transfer Systems for Neurostimulation: A Review. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 1160-1178.	4.0	91

#	Article	IF	Citations
	Enriched conditioning expands the regenerative ability of sensory neurons after spinal cord injury via		
110	neuronal intrinsic redox signaling. Nature Communications, 2020, 11, 6425.	12.8	37
111	Feasibility and Safety of Bilateral Hybrid EEC/EOG Brain/Neural–Machine Interaction. Frontiers in Human Neuroscience, 2020, 14, 580105.	2.0	14
112	Regenerative rehabilitation with conductive biomaterials for spinal cord injury. Acta Biomaterialia, 2022, 139, 43-64.	8.3	47
113	Immediate Effects of Transcutaneous Spinal Cord Stimulation on Motor Function in Chronic, Sensorimotor Incomplete Spinal Cord Injury. Journal of Clinical Medicine, 2020, 9, 3541.	2.4	31
114	Nogo receptor decoy promotes recovery and corticospinal growth in non-human primate spinal cord injury. Brain, 2020, 143, 1697-1713.	7.6	38
115	Deep learning-based BCI for gait decoding from EEG with LSTM recurrent neural network. Journal of Neural Engineering, 2020, 17, 046011.	3.5	60
116	"l Felt the Ballâ€â€"The Future of Spine Injury Recovery. World Neurosurgery, 2020, 140, 602-613.	1.3	1
117	Pavlovian control of intraspinal microstimulation to produce over-ground walking. Journal of Neural Engineering, 2020, 17, 036002.	3.5	12
118	Hierarchically structured polydimethylsiloxane films for ultra-soft neural interfaces. Micro and Nano Engineering, 2020, 7, 100051.	2.9	6
119	Neuroregeneration and plasticity: a review of the physiological mechanisms for achieving functional recovery postinjury. Military Medical Research, 2020, 7, 30.	3.4	40
120	Neuroplasticity as a foundation for human enhancements in space. Acta Astronautica, 2020, 175, 438-446.	3.2	6
121	Therapeutic Interventions to Improve Mobility with Spinal Cord Injury Related Upper Motor Neuron Syndromes. Physical Medicine and Rehabilitation Clinics of North America, 2020, 31, 437-453.	1.3	2
122	Supraspinal and Afferent Signaling Facilitate Spinal Sensorimotor Network Excitability After Discomplete Spinal Cord Injury: A Case Report. Frontiers in Neuroscience, 2020, 14, 552.	2.8	15
123	Oscillator Motif as Design Pattern for the Spinal Cord Circuitry Reconstruction. BioNanoScience, 2020, 10, 649-653.	3.5	5
124	A computational outlook on neurostimulation. Bioelectronic Medicine, 2020, 6, 10.	2.3	20
125	Strategies and prospects of effective neural circuits reconstruction after spinal cord injury. Cell Death and Disease, 2020, 11, 439.	6.3	56
126	Exoskeleton Walk Training in Paralyzed Individuals Benefits From Transcutaneous Lumbar Cord Tonic Electrical Stimulation. Frontiers in Neuroscience, 2020, 14, 416.	2.8	40
127	Antifibrotic strategies for medical devices. Advanced Drug Delivery Reviews, 2020, 167, 109-120.	13.7	36

#	Article	IF	CITATIONS
128	Nanogenerators to Power Implantable Medical Systems. Joule, 2020, 4, 1398-1407.	24.0	61
129	What's New in Spine Surgery. Journal of Bone and Joint Surgery - Series A, 2020, 102, 1034-1041.	3.0	1
130	Soft, Implantable Bioelectronic Interfaces for Translational Research. Advanced Materials, 2020, 32, e1906512.	21.0	67
131	Spinal cord lesions. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2020, 168, 51-65.	1.8	23
132	Wireless Electrical Stimulators and Sensors Network for Closed Loop Control in Rehabilitation. Frontiers in Neuroscience, 2020, 14, 117.	2.8	8
133	Preserved somatosensory conduction in complete spinal cord injury: Discomplete SCI. Clinical Neurophysiology, 2020, 131, 1059-1067.	1.5	11
134	Impact of long-term epidural electrical stimulation enabled task-specific training on secondary conditions of chronic paraplegia in two humans. Journal of Spinal Cord Medicine, 2021, 44, 800-805.	1.4	24
135	Realistic anatomically detailed open-source spinal cord stimulation (RADO-SCS) model. Journal of Neural Engineering, 2020, 17, 026033.	3.5	19
136	Transcutaneous Electrical Spinal Cord Neuromodulator (TESCoN) Improves Symptoms of Overactive Bladder. Frontiers in Systems Neuroscience, 2020, 14, 1.	2.5	54
137	Walking after Spinal Cord Injury: Current Clinical Approaches and Future Directions. Current Physical Medicine and Rehabilitation Reports, 2020, 8, 149-158.	0.8	2
138	Spinal cord stimulation for the recovery of function following spinal cord injury. , 2020, , 487-509.		0
139	Electroceutical therapies for injuries of the nervous system. , 2020, , 511-537.		3
140	Complications of epidural spinal stimulation: lessons from the past and alternatives for the future. Spinal Cord, 2020, 58, 1049-1059.	1.9	28
141	A Comparison of FES and SCS for Neuroplastic Recovery After SCI: Historical Perspectives and Future Directions. Frontiers in Neurology, 2020, 11, 607.	2.4	21
142	Long-Term Spinal Cord Stimulation After Chronic Complete Spinal Cord Injury Enables Volitional Movement in the Absence of Stimulation. Frontiers in Systems Neuroscience, 2020, 14, 35.	2.5	53
143	Measurement of residual in vivo Ag ions from transcutaneous electrical stimulation for neuromodulation. Technology and Health Care, 2020, 28, 453-459.	1.2	0
144	Multi-target approaches to CNS repair: olfactory mucosa-derived cells and heparan sulfates. Nature Reviews Neurology, 2020, 16, 229-240.	10.1	43
145	Therapeutic repair for spinal cord injury: combinatory approaches to address a multifaceted problem. EMBO Molecular Medicine, 2020, 12, e11505.	6.9	139

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#	Article	IF	CITATIONS
146	Recent advances in neuromodulation for spinal cord injuries. Progress in Neurology and Psychiatry, 2020, 24, 4-8.	0.9	2
147	Therapeutic effects of Tetanus neurotoxin in spinal cord injury: a case series on four dogs. Spinal Cord Series and Cases, 2020, 6, 9.	0.6	3
148	Advanced Neurotechnologies for the Restoration of Motor Function. Neuron, 2020, 105, 604-620.	8.1	69
149	Even Simpler Real-Time Model of Neuron. BioNanoScience, 2020, 10, 416-419.	3.5	4
150	Targeted activation of spinal respiratory neural circuits. Experimental Neurology, 2020, 328, 113256.	4.1	16
151	Repair strategies for traumatic spinal cord injury, with special emphasis on novel biomaterial-based approaches. Revue Neurologique, 2020, 176, 252-260.	1.5	13
152	The InSight Crutches: Analyzing the Role of Arm Support During Robot-Assisted Leg Movements. IEEE Robotics and Automation Magazine, 2020, 27, 103-113.	2.0	5
153	Stimulus outputs induced by subdural electrodes on the cervical spinal cord in monkeys. Journal of Neural Engineering, 2020, 17, 016044.	3.5	14
154	Neurohybrid Memristive CMOS-Integrated Systems for Biosensors and Neuroprosthetics. Frontiers in Neuroscience, 2020, 14, 358.	2.8	143
155	Spinal Cord Injury as a Model of Bone-Muscle Interactions: Therapeutic Implications From in vitro and in vivo Studies. Frontiers in Endocrinology, 2020, 11, 204.	3.5	23
156	Early delivery and prolonged treatment with nimodipine prevents the development of spasticity after spinal cord injury in mice. Science Translational Medicine, 2020, 12, .	12.4	25
157	Creativity on demand – Hacking into creative problem solving. NeuroImage, 2020, 216, 116867.	4.2	3
158	New targets and therapeutics for neuroprotection, remyelination and repair in multiple sclerosis. Expert Opinion on Investigational Drugs, 2020, 29, 443-459.	4.1	31
159	Electronic neural interfaces. Nature Electronics, 2020, 3, 191-200.	26.0	105
160	Cell type prioritization in single-cell data. Nature Biotechnology, 2021, 39, 30-34.	17.5	96
161	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.	0.9	7
162	Repeated subarachnoid administrations of allogeneic human umbilical cord mesenchymal stem cells for spinal cord injury: a phase 1/2 pilot study. Cytotherapy, 2021, 23, 57-64.	0.7	53
163	Neuroprosthetics: an outlook on active challenges toward clinical adoption. Journal of Neurophysiology, 2021, 125, 105-109.	1.8	3

#	Article	IF	CITATIONS
164	How is flexible electronics advancing neuroscience research?. Biomaterials, 2021, 268, 120559.	11.4	32
165	Soft Electronics Based on Stretchable and Conductive Nanocomposites for Biomedical Applications. Advanced Healthcare Materials, 2021, 10, e2001397.	7.6	39
167	Spatiotemporal dynamic changes, proliferation, and differentiation characteristics of Sox9-positive cells after severe complete transection spinal cord injury. Experimental Neurology, 2021, 337, 113556.	4.1	4
168	Spinal cord stimulation improves motor function and gait in spastic paraplegia type 4 (SPG4): Clinical and neurophysiological evaluation. Parkinsonism and Related Disorders, 2021, 83, 1-5.	2.2	6
169	Do spinal circuits still require gating of sensory information by presynaptic inhibition after spinal cord injury?. Current Opinion in Physiology, 2021, 19, 113-118.	1.8	5
170	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.	1.5	1
171	A highly stretchable and deformation-insensitive bionic electronic exteroceptive neural sensor for human-machine interfaces. Nano Energy, 2021, 80, 105548.	16.0	33
172	How Should we Use Multicolumn Spinal Cord Stimulation to Optimize Back Pain Spatial Neural Targeting? A Prospective, Multicenter, Randomized, Double-Blind, Controlled Trial (ESTIMET Study). Neuromodulation, 2021, 24, 86-101.	0.8	29
173	Modern approaches of signal processing for bidirectional neural interfaces. , 2021, , 631-659.		0
174	Nanopharmaceutical-based regenerative medicine: a promising therapeutic strategy for spinal cord injury. Journal of Materials Chemistry B, 2021, 9, 2367-2383.	5.8	7
175	Epidural and Transcutaneous Spinal Cord Stimulation Strategies for Motor Recovery After Spinal Cord Injury. , 2021, , 167-190.		1
176	Inducing Hebbian Plasticity at Multiple Spinal Cord Levels Restores Grasping and Walking in Humans With Tetraplegia: A Prospective Study. SSRN Electronic Journal, 0, , .	0.4	1
177	Neuromodulation for Gait Disorders. Contemporary Clinical Neuroscience, 2021, , 485-520.	0.3	0
178	Novel Non-invasive Strategy for Spinal Neuromodulation to Control Human Locomotion. Frontiers in Human Neuroscience, 2020, 14, 622533.	2.0	9
179	Deep Brain Stimulation Initiative: Toward Innovative Technology, New Disease Indications, and Approaches to Current and Future Clinical Challenges in Neuromodulation Therapy. Frontiers in Neurology, 2020, 11, 597451.	2.4	27
180	Epidural electrical stimulation for spinal cord injury. Neural Regeneration Research, 2021, 16, 2367.	3.0	27
181	Nonresonant powering of injectable nanoelectrodes enables wireless deep brain stimulation in freely moving mice. Science Advances, 2021, 7, .	10.3	76
182	Brain-Computer-Spinal Interface Restores Upper Limb Function After Spinal Cord Injury. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1233-1242.	4.9	17

ARTICLE IF CITATIONS Central Nervous System Trauma., 2021,, 25-49. 183 0 Ipsi- and Contralateral Oligo- and Polysynaptic Reflexes in Humans Revealed by Low-Frequency Epidural Electrical Stimulation of the Lumbar Spinal Cord. Brain Sciences, 2021, 11, 112. 184 2.3 Spinal motor mapping by epidural stimulation of lumbosacral posterior roots in humans. IScience, 185 4.1 23 2021, 24, 101930. Optimization of Spinal Cord Stimulation Using Bayesian Preference Learning and Its Validation. IEEE 186 4.9 Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1987-1997. Regulation of Gait Cycle Phases during Noninvasive Electrical Stimulation of the Spinal Cord. Human 187 0.4 8 Physiology, 2021, 47, 60-69. Spinal Cord Injury and Epidural Spinal Cord Stimulation. Contemporary Clinical Neuroscience, 2021, , 188 0.3 19-38. Neuroprosthetic baroreflex controls haemodynamics after spinal cord injury. Nature, 2021, 590, 189 27.8 96 308-314. Improvements in Bladder Function Following Activity-Based Recovery Training With Epidural 2.5 28 Stimulation After Chronic Spinal Cord Injury. Frontiers in Systems Néuroscience, 2020, 14, 614691. Study on the regulation function of spinal cord micro-stimulation signal parameters on hind limb 191 1.0 0 movément in rats. Journal of Vibroengineering, 2021, 23, 1024-1033. Cervical Electrical Neuromodulation Effectively Enhances Hand Motor Output in Healthy Subjects by 2.4 Engaging a Use-Dependent Intervention. Journal of Clinical Medicine, 2021, 10, 195. Recruitment of upper-limb motoneurons with epidural electrical stimulation of the cervical spinal 193 12.8 92 cord. Nature Communications, 2021, 12, 435. A 32-Channel Time-Multiplexed Artifact-Aware Neural Recording System. IEEE Transactions on 194 4.0 Biomedical Circuits and Systems, 2021, 15, 960-977. Peripheral nerve and spinal stimulation., 2021, , 305-328. 195 0 Neuronal Actions of Transspinal Stimulation on Locomotor Networks and Reflex Excitability During Walking in Humans With and Without Spinal Cord Injury. Frontiers in Human Neuroscience, 2021, 15, 620414. Closing the loop between wearable technology and human biology: A new paradigm for steering 197 4.9 8 neuromuscular form and function. Progress in Biomedical Engineering, 0, , . Improving hindlimb locomotor function by Non-invasive AAV-mediated manipulations of propriospinal 199 12.8 50 neurons in mice with complete spinal cord injury. Nature Communications, 2021, 12, 781. How to Identify Responders and Nonresponders to Dorsal Root Ganglionâ€Stimulation Aimed at 201 Eliciting Motor Responses in Chronic Spinal Cord Injury: Post Hoc Clinical and Neurophysiological 0.8 1 Tests in a Case Series of Five Patients. Neuromodulation, 2021, 24, 719-728. Brain fMRI during orientation selective epidural spinal cord stimulation. Scientific Reports, 2021, 11, 3.3 5504.

#	Article	IF	CITATIONS
203	Combined Transcutaneous Spinal Stimulation and Locomotor Training to Improve Walking Function and Reduce Spasticity in Subacute Spinal Cord Injury: A Randomized Study of Clinical Feasibility and Efficacy. Journal of Clinical Medicine, 2021, 10, 1167.	2.4	26
204	Multi-pronged neuromodulation intervention engages the residual motor circuitry to facilitate walking in a rat model of spinal cord injury. Nature Communications, 2021, 12, 1925.	12.8	35
205	Self-Assembling Hydrogel Structures for Neural Tissue Repair. ACS Biomaterials Science and Engineering, 2021, 7, 4136-4163.	5.2	66
206	An intracortical neuroprosthesis immediately alleviates walking deficits and improves recovery of leg control after spinal cord injury. Science Translational Medicine, 2021, 13, .	12.4	32
207	Muscle Coactivation Phenomenon in the Modulation of Walking by Electrical Stimulation of the Spinal Cord. Human Physiology, 2021, 47, 175-182.	0.4	1
208	Bioelectronic medicine for the autonomic nervous system: clinical applications and perspectives. Journal of Neural Engineering, 2021, 18, 041002.	3.5	37
209	A novel paired associative stimulation protocol with a highâ€frequency peripheral component: A review on results in spinal cord injury rehabilitation. European Journal of Neuroscience, 2021, 53, 3242-3257.	2.6	14
210	Converging Robotic Technologies in Targeted Neural Rehabilitation: A Review of Emerging Solutions and Challenges. Sensors, 2021, 21, 2084.	3.8	37
211	Effects of Phase Shifts of Transcutaneous Electrical Spinal Cord Stimulation on the Kinematic Characteristics of Stepping Movements in Humans. Journal of Evolutionary Biochemistry and Physiology, 2021, 57, 319-324.	0.6	0
213	Simultaneous Cervical and Lumbar Spinal Cord Stimulation Induces Facilitation of Both Spinal and Corticospinal Circuitry in Humans. Frontiers in Neuroscience, 2021, 15, 615103.	2.8	13
214	Electrical Stimulation Promotes Stem Cell Neural Differentiation in Tissue Engineering. Stem Cells International, 2021, 2021, 1-14.	2.5	40
215	Transcutaneous Spinal Cord Stimulation Enhances Walking Performance and Reduces Spasticity in Individuals with Multiple Sclerosis. Brain Sciences, 2021, 11, 472.	2.3	25
216	Clinical Trial Designs for Neuromodulation in Chronic Spinal Cord Injury Using Epidural Stimulation. Neuromodulation, 2021, 24, 405-415.	0.8	4
217	Fully Implantable Plantar Cutaneous Augmentation System for Rats Using Closed-loop Electrical Nerve Stimulation. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 326-338.	4.0	11
219	Wearable Sensor-Based Real-Time Gait Detection: A Systematic Review. Sensors, 2021, 21, 2727.	3.8	110
220	Exercise-Induced Plasticity in Signaling Pathways Involved in Motor Recovery after Spinal Cord Injury. International Journal of Molecular Sciences, 2021, 22, 4858.	4.1	29
221	A Computational Model of the Interaction Between Residual Cortico-Spinal Inputs and Spinal Cord Stimulation After Paralysis. , 2021, , .		2
223	Spinal cord fMRI with MB WIFT for assessing epidural spinal cord stimulation in rats. Magnetic Resonance in Medicine, 2021, 86, 2137-2145.	3.0	5

#	Article	IF	CITATIONS
224	Non-invasive approaches to functional recovery after spinal cord injury: Therapeutic targets and multimodal device interventions. Experimental Neurology, 2021, 339, 113612.	4.1	22
225	Comparison of the effects of two therapeutic strategies based on olfactory ensheathing cell transplantation and repetitive magnetic stimulation after spinal cord injury in female mice. Journal of Neuroscience Research, 2021, 99, 1835-1849.	2.9	11
226	Meeting Proceedings for SCI 2020: Launching a Decade of Disruption in Spinal Cord Injury Research. Journal of Neurotrauma, 2021, 38, 1251-1266.	3.4	14
227	Dorsal Root Ganglion (DRG) Versatile Stimulator Prototype Developed for Use in Locomotion Recovery Early Clinical Trials. , 2021, , .		0
228	Phase 1 Safety Trial of Autologous Human Schwann Cell Transplantation in Chronic Spinal Cord Injury. Journal of Neurotrauma, 2022, 39, 285-299.	3.4	45
229	Design and implementation of memristive neuron leakage integrator, and learning feedback. , 2021, , .		0
230	Swimming Exercise Promotes Post-injury Axon Regeneration and Functional Restoration through AMPK. ENeuro, 2021, 8, ENEURO.0414-20.2021.	1.9	8
231	Spinal Cord Injury Alters Spinal Shox2 Interneurons by Enhancing Excitatory Synaptic Input and Serotonergic Modulation While Maintaining Intrinsic Properties in Mouse. Journal of Neuroscience, 2021, 41, 5833-5848.	3.6	13
232	Optimization of Motor-Based Rotational Triboelectric Nanogenerators (RoTENGs) for Neural Stimulation. , 2021, , .		0
233	RISE controller tuning and system identification through machine learning for human lower limb rehabilitation via neuromuscular electrical stimulation. Engineering Applications of Artificial Intelligence, 2021, 102, 104294.	8.1	6
235	Effective Stimulation Type and Waveform for Force Control of the Motor Unit System: Implications for Intraspinal Microstimulation. Frontiers in Neuroscience, 2021, 15, 645984.	2.8	0
236	Selective stimulation of the ferret abdominal vagus nerve with multi-contact nerve cuff electrodes. Scientific Reports, 2021, 11, 12925.	3.3	11
237	Electronics with shape actuation for minimally invasive spinal cord stimulation. Science Advances, 2021, 7, .	10.3	32
238	An artificial nervous system to treat chronic stroke. Artificial Organs, 2021, 45, 804-812.	1.9	2
239	Prioritization of cell types responsive to biological perturbations in single-cell data with Augur. Nature Protocols, 2021, 16, 3836-3873.	12.0	22
240	A Novel Technique to Reject Artifact Components for Surface EMG Signals Recorded During Walking With Transcutaneous Spinal Cord Stimulation: A Pilot Study. Frontiers in Human Neuroscience, 2021, 15, 660583.	2.0	7
241	A prototype closed-loop brain–machine interface for the study and treatment of pain. Nature Biomedical Engineering, 2023, 7, 533-545.	22.5	29
242	Prelude to the special issue on novel neurocircuit, cellular and molecular targets for developing functional rehabilitation therapies of neurotrauma. Experimental Neurology, 2021, 341, 113689.	4.1	2

ARTICLE IF CITATIONS # Transcutaneous spinal cord stimulation improves postural stability in individuals with multiple 243 2.0 12 sclerosis. Multiple Sclerosis and Related Disorders, 2021, 52, 103009. Recording Strategies for High Channel Count, Densely Spaced Microelectrode Arrays. Frontiers in 244 2.8 9 Neuroscience, 2021, 15, 681085. A Biomimetic, SoC-Based Neural Stimulator for Novel Arbitrary-Waveform Stimulation Protocols. 245 2.8 4 Frontiers in Neuroscience, 2021, 15, 697731. Spinal cord regeneration: A brief overview of the present scenario and a sneak peek into the future. 246 Biotechnology Journal, 2021, 16, e2100167. Sensorimotor and Locomotor Adjustments in the Chronic Post-Traumatic Spinal Cord Damage in 247 0.4 0 Human Adults as Evidence of Activity-Dependent Neuroplasticity. Human Physiology, 2021, 47, 363-373. A self-powered implantable and bioresorbable electrostimulation device for biofeedback bone fracture healing. Proceedings of the National Academy of Sciences of the United States of America, 7.1 2021, 118, . Elezanumab, a human anti-RGMa monoclonal antibody, promotes neuroprotection, neuroplasticity, 249 and neurorecovery following a thoracic hemicompression spinal cord injury in non-human primates. 4.4 14 Neurobiology of Disease, 2021, 155, 105385. Resilience of neural networks for locomotion. Journal of Physiology, 2021, 599, 3825-3840. 2.9 Brain-Computer Interface, Neuromodulation, and Neurorehabilitation Strategies for Spinal Cord 251 3 1.7 Injury. Neurosurgery Clinics of North America, 2021, 32, 407-417. The Natural History of Spinal Cord Injury. Neurosurgery Clinics of North America, 2021, 32, 315-321. 1.7 Restoration of motor function after CNS damage: is there a potential beyond spontaneous recovery?. 253 3.3 1 Brain Communications, 2021, 3, fcab171. Impact of long-term epidural electrical stimulation enabled task-specific training on secondary 254 1.4 conditions of chronic paraplegia in two humans. Journal of Spinal Cord Medicine, 2021, 44, 513-514. Targeting Central Nervous System Regeneration with Cell Type Specificity. Neurosurgery Clinics of 255 1.7 7 North America, 2021, 32, 397-405. Large Animal Studies to Reduce the Foreign Body Reaction in Brain–Computer Interfaces: A Systematic 4.7 Review. Biosensors, 2021, 11, 275. Chemogenetic stimulation of proprioceptors remodels lumbar interneuron excitability and promotes 257 8.2 5 motor recovery after SCI. Molecular Therapy, 2021, 29, 2483-2498. Selectivity and excitability of upper-limb muscle activation during cervical transcutaneous spinal 23 cord stimulation in humans. Journal of Applied Physiology, 2021, 131, 746-759. A modular strategy for next-generation upper-limb sensory-motor neuroprostheses. Med, 2021, 2, 260 4.4 16 912-937. Electrical epidural stimulation of the cervical spinal cord: implications for spinal respiratory 1.8 neuroplasticity after spinal cord injury. Journal of Neurophysiology, 2021, 126, 607-626.

#	Article	IF	CITATIONS
262	Closed-loop automated reaching apparatus (CLARA) for interrogating complex motor behaviors. Journal of Neural Engineering, 2021, 18, 045015.	3.5	5
263	The effects of epidural stimulation on individuals living with spinal cord injury or disease: a scoping review. Physical Therapy Reviews, 2021, 26, 344-369.	0.8	2
264	Epidural spinal cord stimulation for motor recovery in spinal cord injury: A systematic review. NeuroRehabilitation, 2021, 49, 1-22.	1.3	9
265	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. Journal of Clinical Medicine, 2021, 10, 3633.	2.4	9
266	Recruitment order of motor neurons promoted by epidural stimulation in individuals with spinal cord injury. Journal of Applied Physiology, 2021, 131, 1100-1110.	2.5	12
267	Closed-Loop Plantar Cutaneous Augmentation by Electrical Nerve Stimulation Increases Ankle Plantarflexion During Treadmill Walking. IEEE Transactions on Biomedical Engineering, 2021, 68, 2798-2809.	4.2	5
268	Long-term stability of the chronic epidural wireless recorder WIMAGINE in tetraplegic patients. Journal of Neural Engineering, 2021, 18, 056026.	3.5	16
269	Surface electromyography to identify top-down modulation in complete chronic spinal cord injury: case report. European Journal of Physical and Rehabilitation Medicine, 2021, , .	2.2	1
270	Spinal Cord Injury-Induced Changes in Encoding and Decoding of Bipedal Walking by Motor Cortical Ensembles. Brain Sciences, 2021, 11, 1193.	2.3	1
271	Synergistic interaction between sensory inputs and propriospinal signalling underlying quadrupedal locomotion. Journal of Physiology, 2021, 599, 4477-4496.	2.9	0
272	A review of emerging neuroprotective and neuroregenerative therapies in traumatic spinal cord injury. Current Opinion in Pharmacology, 2021, 60, 331-340.	3.5	28
273	Highlights from the 30th Annual Meeting of the Society for the Neural Control of Movement. Journal of Neurophysiology, 2021, 126, 967-975.	1.8	6
274	The combination of nanoscaffolds and stem cell transplantation: Paving a promising road for spinal cord injury regeneration. Biomedicine and Pharmacotherapy, 2021, 143, 112233.	5.6	17
275	Next generation material interfaces for neural engineering. Current Opinion in Biotechnology, 2021, 72, 29-38.	6.6	3
276	Biodegradation of microplastics: Better late than never. Chemosphere, 2022, 286, 131670.	8.2	120
277	A flexible electrode array for determining regions of motor function activated by epidural spinal cord stimulation in rats with spinal cord injury. Neural Regeneration Research, 2022, 17, 601.	3.0	3
278	Alterations of Spinal Epidural Stimulation-Enabled Stepping by Descending Intentional Motor Commands and Proprioceptive Inputs in Humans With Spinal Cord Injury. Frontiers in Systems Neuroscience, 2020, 14, 590231.	2.5	14
280	Transcutaneous Spinal Cord Stimulation Restores Hand and Arm Function After Spinal Cord Injury. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 310-319.	4.9	97

	Сітаті	CITATION REPORT	
# 281	ARTICLE Optimizing Neuroprosthetic Therapies via Autonomous Learning Agents. SSRN Electronic Journal, 0, , .	IF 0.4	Citations
282	Spinal Cord Stimulation After Spinal Cord Injury: Promising Multisystem Effects. Current Physical Medicine and Rehabilitation Reports, 2021, 9, 23-31.	0.8	2
283	Spinal cord stimulation for spinal cord injury patients with paralysis: To regain walking and dignity. Tzu Chi Medical Journal, 2021, 33, 29.	1.1	1
284	Conformable on-skin devices for thermo-electro-tactile stimulation: materials, design, and fabrication. Materials Advances, 2021, 2, 1787-1820.	5.4	13
285	Epidural electrical stimulation effectively restores locomotion function in rats with complete spinal cord injury. Neural Regeneration Research, 2021, 16, 573.	3.0	12
286	Comparative neuroanatomy of the lumbosacral spinal cord of the rat, cat, pig, monkey, and human. Scientific Reports, 2021, 11, 1955.	3.3	46
287	Spinal cord stimulation for the restoration of bladder function after spinal cord injury. Healthcare Technology Letters, 2020, 7, 87-92.	3.3	13
288	A biomimetic electrical stimulation strategy to induce asynchronous stochastic neural activity. Journal of Neural Engineering, 2020, 17, 046019.	3.5	27
289	Electrical Stimulation as a Tool to Promote Plasticity of the Injured Spinal Cord. Journal of Neurotrauma, 2020, 37, 1933-1953.	3.4	37
290	Predictors of volitional motor recovery with epidural stimulation in individuals with chronic spinal cord injury. Brain, 2021, 144, 420-433.	7.6	28
296	Wireless Epidural Electrical Stimulation in Combination With Serotonin Agonists Improves Intraspinal Metabolism in Spinal Cord Injury Rats. Neuromodulation, 2021, 24, 416-426.	0.8	4
297	Trends in Clinical Trials for Spinal Cord Stimulation. Stereotactic and Functional Neurosurgery, 2021, 99, 123-134.	1.5	13
298	Rehabilitation of patients in late period after spinal cord injury: a meta-analysis of literature data. Hirurgia Pozvonochnika, 2019, 16, 8-16.	0.4	7
299	An Integrated Brain-Machine Interface Platform With Thousands of Channels. Journal of Medical Internet Research, 2019, 21, e16194.	4.3	526
300	The Connection Between the Nervous System and Machines: Commentary. Journal of Medical Internet Research, 2019, 21, e16344.	4.3	7
301	2018 Yearbook of Neurorestoratology. Journal of Neurorestoratology, 2019, 7, 8-17.	2.5	17
303	From cortex to cord: motor circuit plasticity after spinal cord injury. Neural Regeneration Research, 2019, 14, 2054.	3.0	52
304	Multimodal treatment for spinal cord injury: a sword of neuroregeneration upon neuromodulation. Neural Regeneration Research, 2020, 15, 1437.	3.0	79

#	Article	IF	CITATIONS
305	Neurotrophin-3-mediated locomotor recovery: a novel therapeutic strategy targeting lumbar neural circuitry after spinal cord injury. Neural Regeneration Research, 2020, 15, 2241.	3.0	5
306	The recovery of standing and locomotion after spinal cord injury does not require task-specific training. ELife, 2019, 8, .	6.0	24
307	Multisite Transcutaneous Spinal Stimulation for Walking and Autonomic Recovery in Motor-Incomplete Tetraplegia: A Single-Subject Design. Physical Therapy, 2022, 102, .	2.4	19
308	Neuromodulation as a basic platform for neuroprotection and repair after spinal cord injury. Progress in Brain Research, 2021, 266, 269-300.	1.4	4
309	Phase-Dependent Effects of Transcutaneous Spinal Cord Stimulation on Regulation of Kinematics of Human Stepping Motions. Biophysics (Russian Federation), 2021, 66, 681-688.	0.7	1
310	Nanotechnology Enables Novel Modalities for Neuromodulation. Advanced Materials, 2021, 33, e2103208.	21.0	26
311	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.	2.4	13
312	Complex Electrical Stimulation Systems in Motor Function Rehabilitation after Spinal Cord Injury. Complexity, 2021, 2021, 1-16.	1.6	3
313	Epidural spinal cord stimulation as an intervention for motor recovery after motor complete spinal cord injury. Journal of Neurophysiology, 2021, 126, 1843-1859.	1.8	26
314	Mechanisms of Stem Cell Therapy in Spinal Cord Injuries. Cells, 2021, 10, 2676.	4.1	24
315	Restoring Sensorimotor Function Through Neuromodulation After Spinal Cord Injury: Progress and Remaining Challenges. Frontiers in Neuroscience, 2021, 15, 749465.	2.8	11
316	Global entrainment in the brain–body–environment: retrospective and prospective views. Biological Cybernetics, 2021, 115, 431-438.	1.3	5
317	Epidural Spinal Electrogram Provides Direct Spinal Recordings in Awake Human Participants. Frontiers in Human Neuroscience, 2021, 15, 721076.	2.0	1
318	Attenuation of Activated eIF2α Signaling by ISRIB Treatment After Spinal Cord Injury Improves Locomotor Function. Journal of Molecular Neuroscience, 2022, 72, 585-597.	2.3	9
319	Stem cell-derived neuronal relay strategies and functional electrical stimulation for treatment of spinal cord injury. Biomaterials, 2021, 279, 121211.	11.4	24
320	Engineering spinal cord repair. Current Opinion in Biotechnology, 2021, 72, 48-53.	6.6	18
321	Novel Therapeutic Strategy in Neurorehabilitation. The Japanese Journal of Rehabilitation Medicine, 2018, 55, 1026-1033.	0.0	0
322	Le cerveau, une machine vivante. Futuribles, 2019, Nº 431, 5-23.	0.0	1

#	Article	IF	CITATIONS
323	Doers. , 2019, , 215-254.		0
331	A Novel Electromagnetic-Neurobiologic Interface for Functional Animation of Dormant Motor Nerve Roots in Spinal Cord Injury via Neuromodulation. Frontiers in Surgery, 2019, 6, 73.	1.4	1
334	Epidural electrical stimulation to facilitate locomotor recovery after spinal cord injury. Journal of Neurophysiology, 2021, 126, 1751-1755.	1.8	1
335	Motor improvements enabled by spinal cord stimulation combined with physical training after spinal cord injury: review of experimental evidence in animals and humans. Bioelectronic Medicine, 2021, 7, 16.	2.3	25
336	Investigating the human spinal sensorimotor pathways through functional magnetic resonance imaging. NeuroImage, 2021, 245, 118684.	4.2	26
337	Intramuscular tetanus neurotoxin reverses muscle atrophy: a randomized controlled trial in dogs with spinal cord injury. Journal of Cachexia, Sarcopenia and Muscle, 2022, 13, 443-453.	7.3	3
339	Dynamics of independence and locomotor capabilities caused by powered exoskeleton-induced walk training in patients with severe chronic spinal cord injury. Hirurgia Pozvonochnika, 2020, 17, 54-67.	0.4	2
340	Decoding nociception in the spinal cord: Computer modeling and machine learning. , 2022, , 175-198.		1
341	Therapeutic acute intermittent hypoxia: A translational roadmap for spinal cord injury and neuromuscular disease. Experimental Neurology, 2022, 347, 113891.	4.1	39
342	Spinal Interfaces: Overview. , 2020, , 1-8.		0
343	Cortical and Subcortical Plasticity After Sensory Loss in the Somatosensory System of Primates. , 2020, , 399-418.		1
344	Neuropunk revolution and its implementation via real-time neurosimulations and their integrations. , 2021, , .		1
345	Magnetically Guided Catheters, Micro- and Nanorobots for Spinal Cord Stimulation. Frontiers in Neurorobotics, 2021, 15, 749024.	2.8	3
346	Nonmissile penetrating spinal injuries: Mechanisms, expectations, and management. Surgical Neurology International, 2020, 11, 406.	0.2	0
347	Toward rebalancing blood pressure instability after spinal cord injury with spinal cord electrical stimulation: A mini review and critique of the evolving literature. Autonomic Neuroscience: Basic and Clinical, 2022, 237, 102905.	2.8	6
348	Long-term rehabilitation reduces task error variability in cervical spinal cord contused rats. Experimental Neurology, 2022, 348, 113928.	4.1	2
349	Paired corticospinal-motoneuronal stimulation and exercise after spinal cord injury. Journal of Spinal Cord Medicine, 2021, 44, S23-S27.	1.4	7
350	Learning Decoupled Representations for Human Pose Forecasting. , 2021, , .		7

#	Article	IF	CITATIONS
351	Transcutaneous spinal cord stimulation and motor responses in individuals with spinal cord injury: A methodological review. PLoS ONE, 2021, 16, e0260166.	2.5	25
352	Invasive and Non-Invasive Approaches of Electrical Stimulation to Improve Physical Functioning after Spinal Cord Injury. Journal of Clinical Medicine, 2021, 10, 5356.	2.4	10
353	Current progress of rehabilitative strategies in stem cell therapy for spinal cord injury: a review. Npj Regenerative Medicine, 2021, 6, 81.	5.2	20
354	Algorithms for Automated Calibration of Transcutaneous Spinal Cord Stimulation to Facilitate Clinical Applications. Journal of Clinical Medicine, 2021, 10, 5464.	2.4	5
356	Recent advances in recording and modulation technologies for next-generation neural interfaces. IScience, 2021, 24, 103550.	4.1	9
357	Quantitative Assessment of Clinician Assistance During Dynamic Rehabilitation Using Force Sensitive Resistors. Frontiers in Rehabilitation Sciences, 2021, 2, .	1.2	3
358	Evolving Flexible Sensors, Wearable and Implantable Technologies Towards BodyNET for Advanced Healthcare and Reinforced Life Quality. IEEE Open Journal of Circuits and Systems, 2021, 2, 702-720.	1.9	34
359	MRI metrics at the epicenter of spinal cord injury are correlated with the stepping process in rhesus monkeys. Experimental Animals, 2022, 71, 139-149.	1.1	3
360	Editorial: Advances in Spinal Cord Epidural Stimulation for Motor and Autonomic Functions Recovery After Severe Spinal Cord Injury. Frontiers in Systems Neuroscience, 2021, 15, 820913.	2.5	0
361	Physiologically informed neuromodulation. Journal of the Neurological Sciences, 2022, 434, 120121.	0.6	11
362	Neurointerface implemented with Oscillator Motifs. , 2021, , .		4
363	Women in Neuromodulation: Innovative Contributions to Stereotactic and Functional Neurosurgery. Frontiers in Human Neuroscience, 2021, 15, 756039.	2.0	0
364	Neural Substrates of Transcutaneous Spinal Cord Stimulation: Neuromodulation across Multiple Segments of the Spinal Cord. Journal of Clinical Medicine, 2022, 11, 639.	2.4	8
365	Brain–spine interfaces to reverse paralysis. National Science Review, 2022, 9, .	9.5	6
366	Epidural stimulation with locomotor training ameliorates unstable blood pressure after tetraplegia. A case report. Annals of Clinical and Translational Neurology, 2022, 9, 232-238.	3.7	2
367	Recent advances in upconversion nanoparticle-based nanocomposites for gas therapy. Chemical Science, 2022, 13, 1883-1898.	7.4	35
369	Targeting Sensory and Motor Integration for Recovery of Movement After CNS Injury. Frontiers in Neuroscience, 2021, 15, 791824.	2.8	9
372	The role of electrical stimulation for rehabilitation and regeneration after spinal cord injury. Journal of Orthopaedics and Traumatology, 2022, 23, 2.	2.3	28

#	Article	IF	CITATIONS
373	Gold nanodots with stable red fluorescence for rapid dual-mode imaging of spinal cord and injury monitoring. Talanta, 2022, 241, 123241.	5.5	4
374	Adaptive Wireless Power Transfer and Backscatter Communication for Perpetual Operation of Wireless Brain–Computer Interfaces. Proceedings of the IEEE, 2022, 110, 89-106.	21.3	5
375	Biology-guided engineering of bioelectrical interfaces. Nanoscale Horizons, 2022, 7, 94-111.	8.0	5
376	AuNPs@PDA-PLGA Nanomembrane Combined with Electrical Stimulation Promotes Spinal Cord Injury Recovery. SSRN Electronic Journal, 0, , .	0.4	0
377	Targeting the motor cortex to restore walking after incomplete spinal cord injury. Neural Regeneration Research, 2022, 17, 1489.	3.0	7
378	Closed-Loop, Cervical, Epidural Stimulation Elicits Respiratory Neuroplasticity after Spinal Cord Injury in Freely Behaving Rats. ENeuro, 2022, 9, ENEURO.0426-21.2021.	1.9	5
379	The improvement of the lower limb exoskeletons on the gait of patients with spinal cord injury. Medicine (United States), 2022, 101, e28709.	1.0	5
380	A programmable and skin temperature–activated electromechanical synergistic dressing for effective wound healing. Science Advances, 2022, 8, eabl8379.	10.3	45
382	Nerve root magnetic stimulation improves locomotor function following spinal cord injury with electrophysiological improvements and cortical synaptic reconstruction. Neural Regeneration Research, 2022, 17, 2036.	3.0	7
383	Activity-dependent spinal cord neuromodulation rapidly restores trunk and leg motor functions after complete paralysis. Nature Medicine, 2022, 28, 260-271.	30.7	174
384	Control of Mammalian Locomotion by Somatosensory Feedback. , 2021, 12, 2877-2947.		32
385	Utility and Feasibility of Transcutaneous Spinal Cord Stimulation for Patients With Incomplete SCI in Therapeutic Settings: A Review of Topic. Frontiers in Rehabilitation Sciences, 0, 2, .	1.2	6
387	Translational research in spinal cord injury – What is in the future?. , 2022, , 587-602.		2
388	Epidural Spinal Stimulation Enables Global Sensorimotor and Autonomic Function Recovery After Complete Paralysis: 1 <sup>st</sup> Study From India. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 2052-2059.	4.9	6
390	Spinal cord bioelectronic interfaces: opportunities in neural recording and clinical challenges. Journal of Neural Engineering, 2022, 19, 021003.	3.5	2
391	Preclinical upper limb neurorobotic platform to assess, rehabilitate, and develop therapies. Science Robotics, 2022, 7, eabk2378.	17.6	7
392	Topological supramolecular network enabled high-conductivity, stretchable organic bioelectronics. Science, 2022, 375, 1411-1417.	12.6	230
393	Thin Film Encapsulation for LCP-Based Flexible Bioelectronic Implants: Comparison of Different Coating Materials Using Test Methodologies for Life-Time Estimation. Micromachines, 2022, 13, 544.	2.9	7

#	Article	IF	Citations
395	Therapeutic Effects of Functional Electrical Stimulation on Physical Performance and Muscle Strength in Post-stroke Older Adults: A Review. Annals of Geriatric Medicine and Research, 2022, 26, 16-24.	1.8	8
396	From Parametric Representation to Dynamical System: Shifting Views of the Motor Cortex in Motor Control. Neuroscience Bulletin, 2022, 38, 796-808.	2.9	12
397	AuNPs@PDA-PLGA nanomembrane combined with electrical stimulation promotes spinal cord injury recovery. Materials and Design, 2022, 216, 110585.	7.0	6
398	Embedding digital chronotherapy into bioelectronic medicines. IScience, 2022, 25, 104028.	4.1	20
399	Progression in translational research on spinal cord injury based on microenvironment imbalance. Bone Research, 2022, 10, 35.	11.4	64
400	Effect of long-term paired associative stimulation on the modulation of cortical sensorimotor oscillations after spinal cord injury. Spinal Cord Series and Cases, 2022, 8, 38.	0.6	2
401	Transcutaneous spinal stimulation alters cortical and subcortical activation patterns during mimicked-standing: A proof-of-concept fMRI study. NeuroImage Reports, 2022, 2, 100090.	1.0	4
402	The use of surface EMG in neurorehabilitation following traumatic spinal cord injury: A scoping review. Clinical Neurophysiology, 2022, 138, 61-73.	1.5	9
404	Projections and the Potential Societal Impact of the Future of Neurotechnologies. Frontiers in Neuroscience, 2021, 15, 658930.	2.8	7
405	Isolating Transcutaneous Spinal Cord Stimulation Artifact to Identify Motor Response during Walking. , 2021, 2021, 6569-6572.		2
406	Advances in the Deep Brain Stimulation for Parkinsonâ $\in$ $^{ m Ms}$ Disease. , 2021, , .		2
407	A Three-Arm Parallel-group Exploratory Trial documents balance improvement without much evidence of white matter integrity changes in people with multiple sclerosis following two months ambulatory neuroproprioceptive "facilitation and inhibition" physical therapy. European Journal of Physical and Rehabilitation Medicine, 2021, 57.	2.2	2
408	Histomorphometric study of the soleus muscle under conditions of modeling of spinal cord contusion injury: experimental morphological study. Hirurgia Pozvonochnika, 2021, 18, 111-115.	0.4	0
409	Bayesian optimization of peripheral intraneural stimulation protocols to evoke distal limb movements. Journal of Neural Engineering, 2021, 18, 066046.	3.5	9
410	Adaptation Strategies for Personalized Gait Neuroprosthetics. Frontiers in Neurorobotics, 2021, 15, 750519.	2.8	1
411	Characterization of Spinal Sensorimotor Network Using Transcutaneous Spinal Stimulation during Voluntary Movement Preparation and Performance. Journal of Clinical Medicine, 2021, 10, 5958.	2.4	8
412	When Spinal Neuromodulation Meets Sensorimotor Rehabilitation: Lessons Learned From Animal Models to Regain Manual Dexterity After a Spinal Cord Injury. Frontiers in Rehabilitation Sciences, 2021, 2, .	1.2	4
413	Inclusive Trial Designs in Acute Spinal Cord Injuries: Prediction–Based Stratification of Clinical Walking Outcome and Projected Enrolment Frequencies. Neurorehabilitation and Neural Repair, 2022, 36, 274-285.	2.9	3

#	Article	IF	CITATIONS
414	Advances in Epidural Spinal Cord Stimulation to Restore Function after Spinal Cord Injury: History and Systematic Review. Journal of Neurotrauma, 2022, 39, 1015-1029.	3.4	6
430	Electrospinning porcine decellularized nerve matrix scaffold for peripheral nerve regeneration. International Journal of Biological Macromolecules, 2022, 209, 1867-1881.	7.5	15
431	Spatiotemporal Distribution of Electrically Evoked Spinal Compound Action Potentials During Spinal Cord Stimulation. Neuromodulation, 2023, 26, 961-974.	0.8	5
432	Transhemispheric cortex remodeling promotes forelimb recovery after spinal cord injury. JCI Insight, 2022, 7, .	5.0	4
433	Single-interface bioelectronic medicines—concept, clinical applications and preclinical data. Journal of Neural Engineering, 2022, 19, 031001.	3.5	5
434	A Subdural Bioelectronic Implant to Record Electrical Activity from the Spinal Cord in Freely Moving Rats. Advanced Science, 2022, 9, e2105913.	11.2	10
435	Smartphone generated electrical fields induce axon regrowth within microchannels following injury. Medical Engineering and Physics, 2022, 105, 103815.	1.7	2
436	Advancing Peripheral Nerve Graft Transplantation for Incomplete Spinal Cord Injury Repair. Frontiers in Cellular Neuroscience, 2022, 16, 885245.	3.7	0
437	Electroceuticals and respiratory recovery: is there a place for electrical spinal stimulation in opioidâ€induced respiratory depression?. Journal of Physiology, 2022, 600, 2829-2830.	2.9	0
438	Sex differences in invasive and noninvasive neurotechnologies. , 2022, , 133-160.		0
440	Epidural oscillating field stimulation increases axonal regenerative capacity and myelination after spinal cord trauma. Neural Regeneration Research, 2022, 17, 2730.	3.0	6
441	Treating spinal cord injury with implanted spinal cord stimulators. , 2022, , 245-258.		0
442	Neuromodulation and restoration of motor responses after severe spinal cord injury. , 2022, , 51-63.		2
443	Methods to Enhance the Beneficial Effects of Exercise in Individuals with Spinal Cord Injuries. Physiology in Health and Disease, 2022, , 387-407.	0.3	1
445	Novel implantable devices delivering electrical cues for tissue regeneration and functional restoration. Medicine in Novel Technology and Devices, 2022, 16, 100146.	1.6	5
446	Poststroke arm and hand paresis: should we target the cervical spinal cord?. Trends in Neurosciences, 2022, 45, 568-578.	8.6	12
448	Stochastic spinal neuromodulation tunes the intrinsic logic of spinal neural networks. Experimental Neurology, 2022, 355, 114138.	4.1	3
450	Management of Acute Spinal Cord Injury: Where Have We Been? Where Are We Now? Where Are We Going?. Journal of Neurotrauma, 2022, 39, 1591-1602.	3.4	8

#	Article	IF	CITATIONS
451	Effects of transcutaneous spinal stimulation on spatiotemporal cortical activation patterns: a proof-of-concept EEG study. Journal of Neural Engineering, 2022, 19, 046001.	3.5	4
452	Pluripotent Stem Cells in Clinical Setting—New Developments and Overview of Current Status. Stem Cells, 2022, 40, 791-801.	3.2	8
453	The safety of epidural spinal cord stimulation to restore function after spinal cord injury: post-surgical complications and incidence of cardiovascular events. Spinal Cord, 2022, 60, 903-910.	1.9	9
454	Restoration of complex movement in the paralyzed upper limb. Journal of Neural Engineering, 2022, 19, 046002.	3.5	7
455	Effects of mesenchymal stem cell transplantation on spinal cord injury patients. Cell and Tissue Research, 2022, 389, 373-384.	2.9	10
456	Spinal Interfaces: Overview. , 2022, , 120-127.		0
457	Closed-loop stimulation using a multiregion brain-machine interface has analgesic effects in rodents. Science Translational Medicine, 2022, 14, .	12.4	17
458	Epidural electrical stimulation of the cervical dorsal roots restores voluntary upper limb control in paralyzed monkeys. Nature Neuroscience, 2022, 25, 924-934.	14.8	30
459	Tutorial: a guide to techniques for analysing recordings from the peripheral nervous system. Journal of Neural Engineering, 2022, 19, 042001.	3.5	6
461	Targeting bladder function with network-specific epidural stimulation after chronic spinal cord injury. Scientific Reports, 2022, 12, .	3.3	12
462	MCU-less biphasic electrical stimulation circuit for miniaturized neuromodulator. Biomedical Engineering Letters, 2022, 12, 285-293.	4.1	1
463	Nicotinic acetylcholine signaling is required for motor learning but not for rehabilitation from spinal cord injury. Neural Regeneration Research, 2023, 18, 364.	3.0	1
464	Stretchable Sponge Electrodes for Long-Term and Motion-Artifact-Tolerant Recording of High-Quality Electrophysiologic Signals. ACS Nano, 2022, 16, 11792-11801.	14.6	32
466	Hypertrophy of paravertebral muscles after epidural electrical stimulation shifted: A case report. Frontiers in Surgery, 0, 9, .	1.4	0
467	Historical development and contemporary use of neuromodulation in human spinal cord injury. Current Opinion in Neurology, 2022, 35, 536-543.	3.6	6
469	Genetic control of neuronal activity enhances axonal growth only on permissive substrates. Molecular Medicine, 2022, 28, .	4.4	1
470	Organic Neuroelectronics: From Neural Interfaces to Neuroprosthetics. Advanced Materials, 2022, 34,	21.0	28
471	A Therapeutic Strategy for Lower Motor Neuron Disease and Injury Integrating Neural Stem Cell Transplantation and Functional Electrical Stimulation in a Rat Model. International Journal of Molecular Sciences, 2022, 23, 8760.	4.1	3

#	Article	IF	CITATIONS
472	Micro-patterned cellulose films for flexible electrodes in medical implants. Micro and Nano Engineering, 2022, 16, 100162.	2.9	4
473	Efficacy of Neuromodulation Interventions for the Treatment of Sexual Dysfunction: A Systematic Review. Neuromodulation, 2022, , .	0.8	6
474	Modulation of neural co-firing to enhance network transmission and improve motor function after stroke. Neuron, 2022, 110, 2363-2385.	8.1	11
475	Wide bandgap semiconductor nanomembranes as a long-term biointerface for flexible, implanted neuromodulator. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	7
476	Motorless cadence control of standard and low duty cycle-patterned neural stimulation intensity extends muscle-driven cycling output after paralysis. Journal of NeuroEngineering and Rehabilitation, 2022, 19, .	4.6	0
477	Activity-dependent plasticity and spinal cord stimulation for motor recovery following spinal cord injury. Experimental Neurology, 2022, 357, 114178.	4.1	13
478	Cervical transcutaneous spinal stimulation for spinal motor mapping. IScience, 2022, 25, 105037.	4.1	10
479	Safety and effectiveness of electromyography-induced rehabilitation treatment after epidural electrical stimulation for spinal cord injury: study protocol for a prospective, randomized, controlled trial. Neural Regeneration Research, 2023, 18, 819.	3.0	0
480	Functional Contribution of Mesencephalic Locomotor Region Nuclei to Locomotor Recovery After Spinal Cord Injury. SSRN Electronic Journal, 0, , .	0.4	0
481	Electrode Shift Robust CNN for High-Density Myoelectric Pattern Recognition Control. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	3
482	Computation of Activating Fields for Approximation of the Orientation-Specific Neural Response to Electrical Stimulation. , 2022, , .		0
483	Oxidative DNA Damage in the Pathophysiology of Spinal Cord Injury: Seems Obvious, but Where Is the Evidence?. Antioxidants, 2022, 11, 1728.	5.1	8
484	Single Lead Epidural Spinal Cord Stimulation Targeted Trunk Control and Standing in Complete Paraplegia. Journal of Clinical Medicine, 2022, 11, 5120.	2.4	8
485	Principles of gait encoding in the subthalamic nucleus of people with Parkinson's disease. Science Translational Medicine, 2022, 14, .	12.4	17
486	CBP/p300 activation promotes axon growth, sprouting, and synaptic plasticity in chronic experimental spinal cord injury with severe disability. PLoS Biology, 2022, 20, e3001310.	5.6	11
487	Effect of Acute Physical Interventions on Pathophysiology and Recovery After Spinal Cord Injury: A Comprehensive Review of the Literature. Neurospine, 2022, 19, 671-686.	2.9	5
488	Spinal cord associative plasticity improves forelimb sensorimotor function after cervical injury. Brain, 2022, 145, 4531-4544.	7.6	4
489	Fast inference of spinal neuromodulation for motor control using amortized neural networks. Journal of Neural Engineering, 2022, 19, 056037.	3.5	3

#	Article	IF	CITATIONS
490	Single cell atlas of spinal cord injury in mice reveals a pro-regenerative signature in spinocerebellar neurons. Nature Communications, 2022, 13, .	12.8	26
491	Cortical contributions to locomotor primitives in toddlers and adults. IScience, 2022, 25, 105229.	4.1	8
493	Activation of human spinal locomotor circuitry using transvertebral magnetic stimulation. Frontiers in Human Neuroscience, 0, 16, .	2.0	2
494	A Review of Functional Restoration From Spinal Cord Stimulation in Patients With Spinal Cord Injury. Neurospine, 2022, 19, 703-734.	2.9	12
495	Bioelectronic medicine: Preclinical insights and clinical advances. Neuron, 2022, 110, 3627-3644.	8.1	28
496	Global trends and hot topics in electrical stimulation of skeletal muscle research over the past decade: A bibliometric analysis. Frontiers in Neurology, 0, 13, .	2.4	1
498	Preparation, optical and electrochemical properties of unsymmetrical tetrazaporphyrins with a diarylchalcogenophene unit. Dyes and Pigments, 2022, 207, 110745.	3.7	0
499	Non-invasive brain-spine interface: Continuous control of trans-spinal magnetic stimulation using EEG. Frontiers in Bioengineering and Biotechnology, 0, 10, .	4.1	4
500	Peculiarities of Induced Muscle Responses and Kinematic Parameters of High-Speed Locomotor Movements under Percutaneous Electrical Stimulation of Different Spinal Cord Areas. Human Physiology, 2022, 48, 526-534.	0.4	0
501	Hydrogel interfaces for merging humans and machines. Nature Reviews Materials, 2022, 7, 935-952.	48.7	153
502	Spinal Cord Stimulation for Spinal Cord Injury. , 0, , .		0
503	De novo establishment of circuit modules restores locomotion after spinal cord injury in adult zebrafish. Cell Reports, 2022, 41, 111535.	6.4	6
504	Spinal stimulation for motor rehabilitation immediately modulates nociceptive transmission. Journal of Neural Engineering, 2022, 19, 056046.	3.5	4
505	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. Journal of Neurophysiology, 2022, 128, 1292-1306.	1.8	5
506	Recovery of Sensorimotor Functions After Stroke and SCI: Neurophysiological Basis of Rehabilitation Technology. , 2022, , 41-53.		0
507	Implementation of Robots into Rehabilitation Programs: Meeting the Requirements and Expectations of Professional and End Users. , 2022, , 263-288.		0
508	Spinal Cord Stimulation to Enable Leg Motor Control and Walking in People with Spinal Cord Injury. , 2022, , 369-399.		3
509	Electrical stimulation helps paralysed people walk again — and now we know why. Nature, 2022, 611, 438-438.	27.8	1

	CITATION	CITATION REPORT	
#	Article	IF	CITATIONS
510	Singleâ€eell <scp>RNA</scp> sequencing for traumatic spinal cord injury. FASEB Journal, 2022, 36, .	0.5	5
511	Employment of Neuromuscular Electrical Stimulation to Examine Muscle and Bone Qualities after Spinal Cord Injury. Journal of Clinical Medicine, 2022, 11, 6681.	2.4	1
512	Neurotechnology's Prospects for Bringing About Meaningful Reductions in Neurological Impairment. Neurorehabilitation and Neural Repair, 2023, 37, 356-366.	2.9	3
513	The neurons that restore walking after paralysis. Nature, 2022, 611, 540-547.	27.8	83
514	Neurons that promote recovery from paralysis identified. Nature, 2022, 611, 452-453.	27.8	2
515	Restoring After Central Nervous System Injuries: Neural Mechanisms and Translational Applications of Motor Recovery. Neuroscience Bulletin, 2022, 38, 1569-1587.	2.9	12
516	Pathophysiology and Therapeutic Approaches for Spinal Cord Injury. International Journal of Molecular Sciences, 2022, 23, 13833.	4.1	11
517	Natural and targeted circuit reorganization after spinal cord injury. Nature Neuroscience, 2022, 25, 1584-1596.	14.8	27
518	Spinal interneurons post-injury. , 2023, , 343-366.		0
519	Human spinal networks. , 2023, , 311-341.		0
520	Intraoperative electrical stimulation of the human dorsal spinal cord reveals a map of arm and hand muscle responses. Journal of Neurophysiology, 2023, 129, 66-82.	1.8	1
521	Propriospinal neurons as relay pathways from brain to spinal cord. , 2023, , 207-225.		0
522	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.	6.3	4
523	A systematic review of computational models for the design of spinal cord stimulation therapies: from neural circuits to patientâ€specific simulations. Journal of Physiology, 2023, 601, 3103-3121.	2.9	5
524	Longitudinal interrogation of sympathetic neural circuits and hemodynamics in preclinical models. Nature Protocols, 2023, 18, 340-373.	12.0	3
525	Training with noninvasive brain–machine interface, tactile feedback, and locomotion to enhance neurological recovery in individuals with complete paraplegia: a randomized pilot study. Scientific Reports, 2022, 12, .	3.3	3
526	Conformable neural interface based on off-stoichiometry thiol-ene-epoxy thermosets. Biomaterials, 2023, 293, 121979.	11.4	7
527	Mapping Spinal Cord Stimulation-Evoked Muscle Responses in Patients With Chronic Spinal Cord Injury. Neuromodulation, 2023, 26, 1371-1380.	0.8	2

#	Article	IF	CITATIONS
528	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.	2.5	4
529	Targeted dorsal root entry zone stimulation alleviates pain due to meralgia paresthetica. Journal of Neural Engineering, 2022, 19, 064001.	3.5	1
530	Neuromodulation with transcutaneous spinal stimulation reveals different groups of motor profiles during robot-guided stepping in humans with incomplete spinal cord injury. Experimental Brain Research, 2023, 241, 365-382.	1.5	1
531	Vagus Nerve Stimulation: A Personalized Therapeutic Approach for Crohn's and Other Inflammatory Bowel Diseases. Cells, 2022, 11, 4103.	4.1	10
532	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.	16.0	6
533	An Electroconductive Hydrogel Scaffold with Injectability and Biodegradability to Manipulate Neural Stem Cells for Enhancing Spinal Cord Injury Repair. Biomacromolecules, 2023, 24, 86-97.	5.4	19
534	Neuroanatomical mapping of the lumbosacral spinal cord in individuals with chronic spinal cord injury. Brain Communications, 2022, 5, .	3.3	7
535	Transcutaneous Spinal Stimulation From Adults to Children: A Review. Topics in Spinal Cord Injury Rehabilitation, 2023, 29, 16-32.	1.8	6
536	Treg cell-derived exosomes miR-709 attenuates microglia pyroptosis and promotes motor function recovery after spinal cord injury. Journal of Nanobiotechnology, 2022, 20, .	9.1	10
537	Tuning of motor outputs produced by spinal stimulation during voluntary control of torque directions in monkeys. ELife, 0, 11, .	6.0	1
538	Coordinated neurostimulation promotes circuit rewiring and unlocks recovery after spinal cord injury. Journal of Experimental Medicine, 2023, 220, .	8.5	4
539	Neuroprosthetics: from sensorimotor to cognitive disorders. Communications Biology, 2023, 6, .	4.4	19
540	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.	4.9	3
541	Regulation of axonal regeneration after mammalian spinal cord injury. Nature Reviews Molecular Cell Biology, 2023, 24, 396-413.	37.0	40
542	Mapping the Iceberg of Autonomic Recovery: Mechanistic Underpinnings of Neuromodulation following Spinal Cord Injury. Neuroscientist, 0, , 107385842211455.	3.5	9
543	Gradient Nanoaggregation in a Magnetically Actuated Scaffold for Multiscale Immunoregulation and Microenvironment Remodeling Accelerates Nerve and Muscle Repair. , 2023, 5, 580-595.		5
544	Activation of MAP2K signaling by genetic engineering or HF-rTMS promotes corticospinal axon sprouting and functional regeneration. Science Translational Medicine, 2023, 15, .	12.4	4
545	Pathway of transient electronics towards connected biomedical applications. Nanoscale, 2023, 15, 4236-4249.	5.6	6

#	Article	IF	CITATIONS
546	Lower limb exoskeleton robot and its cooperative control: A review, trends, and challenges for future research. Frontiers in Neurorobotics, 0, 16, .	2.8	16
547	Neuromodulation Through Spinal Cord Stimulation Restores Ability to Voluntarily Cycle After Motor Complete Paraplegia. Journal of Neurotrauma, 0, , .	3.4	1
548	Hybrid Robotics and Neuroprosthetics forÂAssociative Neurorehabilitation. , 2023, , 1755-1776.		0
549	Epidural stimulation of the cervical spinal cord for post-stroke upper-limb paresis. Nature Medicine, 2023, 29, 689-699.	30.7	44
550	Biodegradation of different types of microplastics: Molecular mechanism and degradation efficiency. Science of the Total Environment, 2023, 877, 162912.	8.0	32
551	Contralateral Selectivity of Upper-Limb Motor Pools via Targeted Stimulation of the Cervical Spinal Cord. Biomedicines, 2023, 11, 332.	3.2	0
552	Combined cervical transcutaneous with lumbosacral epidural stimulation improves voluntary control of stepping movements in spinal cord injured individuals. Frontiers in Bioengineering and Biotechnology, 0, 11, .	4.1	2
553	Electrical stimulation for the treatment of spinal cord injuries: A review of the cellular and molecular mechanisms that drive functional improvements. Frontiers in Cellular Neuroscience, 0, 17, .	3.7	10
554	Recent progress and challenges in the treatment of spinal cord injury. Protein and Cell, 2023, 14, 635-652.	11.0	5
555	Cerebral Theta-Burst Stimulation Combined with Physiotherapy in Patients with Incomplete Spinal Cord Injury: A Pilot Randomized Controlled Trial. Journal of Rehabilitation Medicine, 0, 55, jrm00375.	1.1	2
556	A New Technology for Recovery of Locomotion in Patients after a Stroke. Doklady Biochemistry and Biophysics, 2022, 507, 353-356.	0.9	2
557	Effects of percutaneously-implanted epidural stimulation on cardiovascular autonomic function and spasticity after complete spinal cord injury: A case report. Frontiers in Neuroscience, 0, 17, .	2.8	4
558	Functional contribution of mesencephalic locomotor region nuclei to locomotor recovery after spinal cord injury. Cell Reports Medicine, 2023, 4, 100946.	6.5	4
559	Multisite Hebbian Plasticity Restores Function in Humans with Spinal Cord Injury. Annals of Neurology, 2023, 93, 1198-1213.	5.3	8
561	Memristive circuit-based model of central pattern generator to reproduce spinal neuronal activity in walking pattern. Frontiers in Neuroscience, 0, 17, .	2.8	4
562	Stimulation of spinal cord according to recorded theta hippocampal rhythm during rat move on treadmill. Biomedizinische Technik, 2023, .	0.8	0
563	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
564	Chinese Digital Arm (CDA): A High-Precision Digital Arm for Electrical Stimulation Simulation. Bioengineering, 2023, 10, 374.	3.5	2

#	Article	IF	CITATIONS
565	Nerve root magnetic stimulation: a novel stimulation mode targeting sensorimotor neural circuit to improve motor function. , 2023, 2, 25.		0
566	Integration of hydrogels in microfabrication processes for bioelectronic medicine: Progress and outlook. Frontiers in Bioengineering and Biotechnology, 0, 11, .	4.1	1
567	Biomimetic Electrospun PLLA/PPSB Nanofibrous Scaffold Combined with Human Neural Stem Cells for Spinal Cord Injury Repair. ACS Applied Nano Materials, 2023, 6, 5980-5993.	5.0	5
568	Principles of Rehabilitation Strategies in Spinal Cord Injury. , 0, , .		0
570	Electrical Stimulation of Nerves and Muscles. , 2023, , 351-376.		0
571	A fresh look at propriospinal interneurons plasticity and intraspinal circuits remodeling after spinal cord injury. IBRO Neuroscience Reports, 2023, 14, 441-446.	1.6	0
572	Autonomous optimization of neuroprosthetic stimulation parameters that drive the motor cortex and spinal cord outputs in rats and monkeys. Cell Reports Medicine, 2023, 4, 101008.	6.5	6
573	Walking Outcome After Traumatic Paraplegic Spinal Cord Injury: The Function of Which Myotomes Makes a Difference?. Neurorehabilitation and Neural Repair, 2023, 37, 316-327.	2.9	1
574	A case study of percutaneous epidural stimulation to enable motor control in two men after spinal cord injury. Nature Communications, 2023, 14, .	12.8	3
575	Mobile cognition: imaging the human brain in the â€~real world'. Nature Reviews Neuroscience, 2023, 24, 347-362.	10.2	29
576	Combined treatment using novel multifunctional MAu-GelMA hydrogel loaded with neural stem cells and electrical stimulation promotes functional recovery from spinal cord injury. Ceramics International, 2023, 49, 20623-20636.	4.8	3
577	Beyond treatment of chronic pain: a scoping review about epidural electrical spinal cord stimulation to restore sensorimotor and autonomic function after spinal cord injury. Neurological Research and Practice, 2023, 5, .	2.0	0
578	Neurotechnologies to restore hand functions. , 2023, 1, 390-407.		5
579	Precision neuromodulation: Promises and challenges of spinal stimulation for multi-modal rehabilitation. Frontiers in Rehabilitation Sciences, 0, 4, .	1.2	2
580	Electrical stimulation for therapeutic approach. , 2023, 1, .		10
581	Nanocomposite Hydrogels in Regenerative Medicine: Applications and Challenges. Macromolecular Rapid Communications, 2023, 44, .	3.9	5
582	Targeted Selection of Stimulation Parameters for Restoration of Motor and Autonomic Function in Individuals With Spinal Cord Injury. Neuromodulation, 2023, , .	0.8	8
583	Current insights into the management of spinal cord injury. Journal of Orthopaedics, 2023, 41, 8-13.	1.3	4

#	Article	IF	CITATIONS
584	Noninvasive Electrical Stimulation Neuromodulation and Digital Brain Technology: A Review. Biomedicines, 2023, 11, 1513.	3.2	1
585	Walking naturally after spinal cord injury using a brain–spine interface. Nature, 2023, 618, 126-133.	27.8	68
586	A Scoping Review of Epidural Spinal Cord Stimulation for Improving Motor and Voiding Function Following Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation, 2023, 29, 12-30.	1.8	1
587	Commentary: Spinal Cord Stimulation to Improve Autonomic Regulation After Spinal Cord Injury: Can Reflex Control Be Restored?. Topics in Spinal Cord Injury Rehabilitation, 2023, 29, 31-33.	1.8	0
588	Synchronous Generation of Electrical and Cellular Energies via Body-Mediated Energy Transfer: Inevitable Electric Field Concentration. ACS Energy Letters, 0, , 2954-2961.	17.4	0
589	A comprehensive look at the psychoneuroimmunoendocrinology of spinal cord injury and its progression: mechanisms and clinical opportunities. Military Medical Research, 2023, 10, .	3.4	4
590	Advances in Spinal Cord Neuromodulation: The Integration of Neuroengineering, Computational Approaches, and Innovative Conceptual Frameworks. Journal of Personalized Medicine, 2023, 13, 993.	2.5	1
592	Injectable Ventral Spinal Stimulator Evokes Programmable and Biomimetic Hindlimb Motion. Nano Letters, 0, , .	9.1	0
593	Utilizing Neuromodulation in the Treatment of Spinal Cord Injury: An Assessment of Clinical Trials from the National ClinicalTrials.gov Database. World Neurosurgery, 2023, 177, e361-e367.	1.3	0
595	Improved walking capacity after complementary ankle-foot surgery and gait training in a person with an incomplete tetraplegia; a case report. Spinal Cord Series and Cases, 2023, 9, .	0.6	0
596	Electrical Stimulation Exercise for People with Spinal Cord Injury: A Healthcare Provider Perspective. Journal of Clinical Medicine, 2023, 12, 3150.	2.4	5
597	Flexible Electrodes for Brain–Computer Interface System. Advanced Materials, 2023, 35, .	21.0	5
598	Co-Delivery of Curcumin and Resveratrol via a Hydrogel/Nanoparticle System Modulate NF-kB Inflammatory Signalling Pathway in Rat Model of Traumatic Spinal Cord Injury. Journal of Biomedical Nanotechnology, 2023, 19, 342-348.	1.1	1
599	Spinal Cord Injury Repair in a Rat Model via a Sophisticated Delivery System Composed of Schwan Cells, Calcium Alginate Hydrogel, and <i>Bellis perennis</i> Extract-Loaded Gelatin Nanofibers. Journal of Biomedical Nanotechnology, 2023, 19, 336-341.	1.1	0
600	Exoskeleton gait training with spinal cord neuromodulation. Frontiers in Human Neuroscience, 0, 17, .	2.0	0
602	Brain–spine interface allows paralysed man to walk using his thoughts. Nature, 2023, 618, 18-18.	27.8	2
603	Spinal cord injury: molecular mechanisms and therapeutic interventions. Signal Transduction and Targeted Therapy, 2023, 8, .	17.1	31
604	Model-Based Nonlinear Control of a Class of Musculoskeletal Systems. , 2023, , .		0

#	Article	IF	Citations
605	Multi-Site Spinal Cord Transcutaneous Stimulation Facilitates Upper Limb Sensory and Motor Recovery in Severe Cervical Spinal Cord Injury: A Case Study. Journal of Clinical Medicine, 2023, 12, 4416.	2.4	2
606	Therapy of spinal cord injury by zinc pyrogallol modified nanozyme via anti-inflammatory strategies. Chemical Engineering Journal, 2023, 471, 144595.	12.7	0
608	A generic diffusion-based approach for 3D human pose prediction in the wild. , 2023, , .		3
609	Uncovering and leveraging the return of voluntary motor programs after paralysis using a bi-cortical neuroprosthesis. Progress in Neurobiology, 2023, 228, 102492.	5.7	1
610	Transfer Learning of Fuzzy Spatio-Temporal Rules in a Brain-Inspired Spiking Neural Network Architecture: A Case Study on Spatio-Temporal Brain Data. IEEE Transactions on Fuzzy Systems, 2023, 31, 4542-4552.	9.8	3
611	Enhanced selectivity of transcutaneous spinal cord stimulation by multielectrode configuration. Journal of Neural Engineering, 2023, 20, 046015.	3.5	3
612	Targeted transcutaneous spinal cord stimulation promotes persistent recovery of upper limb strength and tactile sensation in spinal cord injury: a pilot study. Frontiers in Neuroscience, 0, 17, .	2.8	3
613	Spinal Cord Stimulation for Gait Disorders in Parkinson's Disease and Atypical Parkinsonism: A Systematic Review of Preclinical and Clinical Data. Neuromodulation, 2023, , .	0.8	1
614	Motor and autonomic concomitant health improvements with neuromodulation and exercise (MACHINE) training: a randomised controlled trial in individuals with spinal cord injury. BMJ Open, 2023, 13, e070544.	1.9	0
615	A digital bridge to reverse paralysis. Cell Research, 2023, 33, 892-893.	12.0	1
616	Case study: persistent recovery of hand movement and tactile sensation in peripheral nerve injury using targeted transcutaneous spinal cord stimulation. Frontiers in Neuroscience, 0, 17, .	2.8	0
617	Recent advance in bioactive hydrogels for repairing spinal cord injury: material design, biofunctional regulation, and applications. Journal of Nanobiotechnology, 2023, 21, .	9.1	7
619	Nanozyme-Integrated Thermoresponsive <i>In Situ</i> Forming Hydrogel Enhances Mesenchymal Stem Cell Viability and Paracrine Effect for Efficient Spinal Cord Repair. ACS Applied Materials & Interfaces, 2023, 15, 37193-37204.	8.0	4
621	Macher. , 2023, , 237-280.		0
622	Spinal cord stimulation for spinal cord injury – Where do we stand? A narrative review. Journal of Clinical Orthopaedics and Trauma, 2023, 43, 102210.	1.5	0
623	Paralysis under pressure. Science, 2023, 381, 494-495.	12.6	0
624	Editorial: Hybrid brain-robot interfaces for enhancing mobility. Frontiers in Neurorobotics, 0, 17, .	2.8	0
625	Hormonal computing: a conceptual approach. Frontiers in Chemistry, 0, 11, .	3.6	1

#	Article	IF	CITATIONS
626	Neural Encoding of Pavement Textures during Exoskeleton Control: A Pilot Study. Applied Sciences (Switzerland), 2023, 13, 9356.	2.5	0
627	An optimization framework for targeted spinal cord stimulation. Journal of Neural Engineering, 2023, 20, 056026.	3.5	2
628	Biomimetic Electrospun Self-Assembling Peptide Scaffolds for Neural Stem Cell Transplantation in Neural Tissue Engineering. Pharmaceutics, 2023, 15, 2261.	4.5	2
629	The future of brain circuit-targeted therapeutics. Neuropsychopharmacology, 2024, 49, 179-188.	5.4	4
630	Mesenchymal Stem Cell Therapy in Traumatic Spinal Cord Injury: A Systematic Review. International Journal of Molecular Sciences, 2023, 24, 11719.	4.1	5
631	The Promising Role of a Zebrafish Model Employed in Neural Regeneration Following a Spinal Cord Injury. International Journal of Molecular Sciences, 2023, 24, 13938.	4.1	2
632	Soft Bioelectronics for Therapeutics. ACS Nano, 2023, 17, 17634-17667.	14.6	6
633	Current state of the art and future directions for implantable sensors in medical technology: Clinical needs and engineering challenges. APL Bioengineering, 2023, 7, .	6.2	1
634	Generation of direct current electrical fields as regenerative therapy for spinal cord injury: A review. APL Bioengineering, 2023, 7, .	6.2	3
635	Integration of feedforward and feedback control in the neuromechanics of vertebrate locomotion: a review of experimental, simulation and robotic studies. Journal of Experimental Biology, 2023, 226, .	1.7	8
636	Optogenetic spinal stimulation promotes new axonal growth and skilled forelimb recovery in rats with sub-chronic cervical spinal cord injury. Journal of Neural Engineering, 2023, 20, 056005.	3.5	1
637	Multimodal analysis of the biomechanical impact of knee angle on the Sit-to-Stand transition. Gait and Posture, 2023, 105, 125-131.	1.4	0
639	Spinal intradural electrodes: opportunities, challenges and translation to the clinic. Neural Regeneration Research, 2024, 19, 503-504.	3.0	1
644	Mitochondrial transport in neurons and evidence for its involvement in acute neurological disorders. Frontiers in Neuroscience, 0, 17, .	2.8	1
645	The effects of transcutaneous spinal cord stimulation delivered with and without highâ€frequency modulation on spinal and corticospinal excitability. Artificial Organs, 2024, 48, 297-308.	1.9	0
647	Brain-inspired evolving and spiking connectionist systems. , 2024, , 145-171.		0
648	A Hyperflexible Electrode Array for Longâ€Term Recording and Decoding of Intraspinal Neuronal Activity. Advanced Science, 2023, 10, .	11.2	0
649	Epidural spinal cord stimulation can facilitate ejaculatory response in spinal cord injury individuals: a report of two cases. International Journal of Neuroscience, 0, , 1-8.	1.6	0

#	ARTICLE	IF	CITATIONS
650	Electric field bridging-effect in electrified microfibrils' scaffolds. Frontiers in Bioengineering and Biotechnology, 0, 11, .	4.1	0
651	A spinal cord neuroprosthesis for locomotor deficits due to Parkinson's disease. Nature Medicine, 2023, 29, 2854-2865.	30.7	5
652	Spinal stimulation for unfreezing gait in Parkinson's disease. Nature Medicine, 2023, 29, 2713-2715.	30.7	0
653	A Research Protocol to Study the Priming Effects of Breathing Low Oxygen on Enhancing Training-Related Gains in Walking Function for Persons With Spinal Cord Injury: The BO <sub>2</sub> ST Trial. Neurotrauma Reports, 2023, 4, 736-750.	1.4	0
654	Dynamic electrical stimulation enhances the recruitment of spinal interneurons by corticospinal input. Experimental Neurology, 2024, 371, 114589.	4.1	0
655	Biomimicking 3D soft scaffold combined with electrical stimulation to manipulate neural stem cell differentiation for guidance spinal cord injury repair. Materials Today, 2023, 71, 50-62.	14.2	0
656	Restoration of Over-Ground Walking via Non-Invasive Neuromodulation Therapy: A Single-Case Study. Journal of Clinical Medicine, 2023, 12, 7362.	2.4	0
657	Advances in Conductive Hydrogel for Spinal Cord Injury Repair and Regeneration. International Journal of Nanomedicine, 0, Volume 18, 7305-7333.	6.7	0
658	Closed-loop cervical epidural stimulation partially restores ipsilesional diaphragm EMG after acute C2 hemisection. Respiratory Physiology and Neurobiology, 2024, 320, 104182.	1.6	0
659	From single cells to neural circuits. Science, 2023, 382, 528-528.	12.6	0
660	Spinal implant helps man with advanced Parkinson's to walk without falling. Nature, 2023, 623, 465-466.	27.8	0
662	Restoring neuronal iron homeostasis revitalizes neurogenesis after spinal cord injury. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	7.1	4
663	Invasive Brain Computer Interface for Motor Restoration in Spinal Cord Injury: A Systematic Review. Neuromodulation, 2023, , .	0.8	1
664	A Low-Temperature Poly-Silicon Thin Film Transistor Pixel Circuit for Active-Matrix Simultaneous Neurostimulation. IEEE Journal of the Electron Devices Society, 2023, 11, 695-699.	2.1	0
665	Wireless Batteryâ€Free Peripheral Nerve Stimulation Conch for Remote Muscle Activation. Advanced Materials Technologies, 0, , .	5.8	0
667	Interleaved configurations of percutaneous epidural stimulation enhanced overground stepping in a person with chronic paraplegia. Frontiers in Neuroscience, 0, 17, .	2.8	1
668	Polysaccharides as a promising platform for the treatment of spinal cord injury: A review. Carbohydrate Polymers, 2024, 327, 121672.	10.2	0
669	Multi-channel Wireless Implantable Brain-Computer Interface System. , 2023, , .		0

#	Article	IF	CITATIONS
670	Review of spinal cord stimulation for disorders of consciousness. Current Opinion in Neurology, 2023, 36, 507-515.	3.6	1
672	Neuropunk revolution: memristive model orchestrated implants infrastructure. , 2023, , .		0
673	<i>In vivo</i> parcellation of the human spinal cord functional architecture. , 2023, , .		0
674	Consecutive Transcutaneous and Epidural Spinal Cord Neuromodulation to Modify Clinical Complete Paralysis—the Proof of Concept. Mayo Clinic Proceedings Innovations, Quality & Outcomes, 2024, 8, 1-16.	2.4	0
675	Recovery of Volitional Motor Control and Overground Walking in Participants With Chronic Clinically Motor Complete Spinal Cord Injury: Restoration of Rehabilitative Function With Epidural Spinal Stimulation (RESTORES) Trial—A Preliminary Study. Journal of Neurotrauma, 0, , .	3.4	0
676	Rehabilitation Training after Spinal Cord Injury Affects Brain Structure and Function: From Mechanisms to Methods. Biomedicines, 2024, 12, 41.	3.2	0
677	Aparición de la Estimulación Eléctrica Epidural para Facilitar la Funcionalidad de la Red Sensoriomotora Luego de Daño Espinal , 2021, 15, 62-81.		0
678	Real-Time Decoding of Leg Motor Function and Dysfunction from the Subthalamic Nucleus in People with Parkinson's Disease. Springer Briefs in Electrical and Computer Engineering, 2024, , 83-92.	0.5	0
679	Brain-Body Interfaces to Assist and Restore Motor Functions in People with Paralysis. Springer Briefs in Electrical and Computer Engineering, 2024, , 59-73.	0.5	0
680	Digital Bridge to Restore Voluntary Control of Leg Movements After Paralysis. Springer Briefs in Electrical and Computer Engineering, 2024, , 49-57.	0.5	0
681	Towards aÂGait Planning Training Strategy Using Lokomat. Lecture Notes in Networks and Systems, 2024, , 357-367.	0.7	0
682	The Effect of Epidural Electrical Stimulation Application in Individuals with Spinal Cord Injury. İstanbul Geliğim Üniversitesi Sağlık Bilimleri Dergisi, 2024, , 1251-1261.	0.2	0
684	Neuromorphic hardware for somatosensory neuroprostheses. Nature Communications, 2024, 15, .	12.8	1
685	Multiple-Mode Bi-directional Neural Interface Design for Spinal Cord to Muscle Neural Link Mapping Study. , 2023, , .		0
686	Dual electrical stimulation at spinal-muscular interface reconstructs spinal sensorimotor circuits after spinal cord injury. Nature Communications, 2024, 15, .	12.8	0
687	Neural population dynamics reveals disruption of spinal circuits' responses to proprioceptive input during electrical stimulation of sensory afferents. Cell Reports, 2024, 43, 113695.	6.4	0
688	Neuroprosthesis Applications of Robotic Exoskeletons. , 0, , 93-103.		0
689	REPORT-SCS: minimum reporting standards for spinal cord stimulation studies in spinal cord injury. Journal of Neural Engineering, 2024, 21, 016019.	3.5	0

#	Article	IF	CITATIONS
691	Une neuroprothèse spinale contre les déficits locomoteurs de la maladie de Parkinson. Medecine/Sciences, 2024, 40, 104-106.	0.2	0
692	Neuromodulation techniques – From non-invasive brain stimulation to deep brain stimulation. Neurotherapeutics, 2024, 21, e00330.	4.4	0
693	Neuropunk Revolution: Further Results. Studies in Computational Intelligence, 2024, , 875-883.	0.9	0
694	Epidural Spinal Cord Stimulation for Spinal Cord Injury in Humans: A Systematic Review. Journal of Clinical Medicine, 2024, 13, 1090.	2.4	1
696	Functional plasticity of glutamatergic neurons of medullary reticular nuclei after spinal cord injury in mice. Nature Communications, 2024, 15, .	12.8	0
697	Biomimetic computer-to-brain communication enhancing naturalistic touch sensations via peripheral nerve stimulation. Nature Communications, 2024, 15, .	12.8	0
698	Role and contributions of women in revolutionizing neurosurgery. World Neurosurgery: X, 2024, 22, 100284.	1.1	0
699	Improvement of Functional State of Patients after Spinal Cord Injury During Epidural Electrical Stimulation: Prospective Study. Bulletin of Restorative Medicine, 2024, 22, 28-41.	0.0	0
700	Peak Slope Ratio of the Recruitment Curves Compared to Muscle Evoked Potentials to Optimize Standing Configurations with Percutaneous Epidural Stimulation after Spinal Cord Injury. Journal of Clinical Medicine, 2024, 13, 1344.	2.4	0
701	Closedâ€Loop Wearable Device Network of Intrinsically ontrolled, Bilateral Coordinated Functional Electrical Stimulation for Stroke. Advanced Science, 0, , .	11.2	0
703	Editorial: Neuromuscular adaptations to sensorimotor stimulation protocols: potential rehabilitative interventions for individuals with central or peripheral neuromuscular injuries. Frontiers in Rehabilitation Sciences, 0, 5, .	1.2	0
704	Multi-session transcutaneous spinal cord stimulation prevents chloride homeostasis imbalance and the development of hyperreflexia after spinal cord injury in rat. Experimental Neurology, 2024, 376, 114754.	4.1	0
705	Proportional sway-based electrotactile feedback improves lateral standing balance. Frontiers in Neuroscience, 0, 18, .	2.8	0
706	Neuromodulation's Role in Functional Restoration in Paraplegic and Quadriplegic Patients. Biomedicines, 2024, 12, 720.	3.2	0
707	Neuromodulation techniques in poststroke motor impairment recovery: Efficacy, challenges, and future directions. Tzu Chi Medical Journal, 2024, 36, 136-141.	1.1	0
708	Spinal Cord Stimulation for Poststroke Hemiparesis: A Scoping Review. American Journal of Occupational Therapy, 2024, 78, .	0.3	0