

Special Issue

Guest Editors



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New Age of Therapy for Spinal Cord Injury: Neuromodulation & Neuroregeneration

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Dear Colleagues,

Recent studies of spinal cord neuromodulation demonstrated significant restoration of motor control in multiple animal models and in paralyzed patients. Several recent findings also suggesting the synergistic effect of regenerative cell and gene therapies when applied in combination with spinal cord electrical stimulation.

The mechanisms underlying these therapeutic approaches, particularly those that integrate electrical stimulation with sensory inputs and descending signals with cellular protection and regenerative effect are largely unknown.

We invite to contribute your expertise via manuscript submission to a special issue of Frontiers in Bioscience entitled 'New Age of Therapy for Spinal Cord Injury: Neuromodulation & Neuroregeneration'.

Through this special issue, we aim to advance the current understanding of the effects of spinal cord neuromodulation and regenerative therapies applied alone, or in combination, to restore function after spinal cord injury. We seek to publish cutting-edge research focused on molecular and cellular changes, spinal circuitry reorganization, and post-traumatic remodeling. The goal of this issue is to evaluate the mechanisms of neuromodulation and neuroregeneration after spinal cord injury, which could represent an important information for integrated approach leading to a synergistic therapeutic effect.

Asst. Prof. Igor A. Lavrov and Prof. Rustem R. Islamov Guest Editors