Special Issue

Application of Transcranial Magnetic Stimulation (TMS) in Motor Control and Learning

Message from the Guest Editor

TMS provides a non-invasive method to induce neural activity in the human brain that can be used to assess or modulate the underlying cortical mechanisms governing motor control and learning. Single and paired-pulse assessments, including dual-site TMS, assess how corticospinal projections, intracortical circuits, and corticocortical or cerebellar-cortical loops shape motor control and change with learning. Repetitive TMS protocols probe mechanisms of neuroplasticity and offer the potential to enhance clinical approaches to movement disorders. This Special Issue seeks to assemble original research and review papers highlighting the novel application of conventional approaches and emerging TMS technologies to our understanding of motor control and learning. Basic and clinical studies investigating the role of intra- and intercortical mechanisms in the brain–behavior relationship or those seeking to exploit mechanistic knowledge to enhance motor ability are particularly encouraged. Studies examining the neurophysiological mechanisms targeted by TMS methodologies, including controllable pulse parameter TMS, are also encouraged.

Guest Editor

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You are invited to contribute a research article or a comprehensive review for consideration and publication in *Brain Sciences* (ISSN 2076-3425). *Brain Sciences* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on neuroscience. The scientific community and the general public can access the content free of charge as soon as it is published.

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