Special Issue on
Methods for Evaluating Motor Improvement in Evidence-Based Rehabilitation

CALL FOR PAPERS

The motor skills of elderly persons and persons with neuromuscular disorders gradually deteriorate with time, both in movement velocity and accuracy. Evidence-based rehabilitation (EBR) has greatly influenced the field over the past decade and is expected to revolutionize treatment of disabilities caused by stroke and neuromuscular disease. Methods for evaluating motor improvement are crucial in rehabilitation, and data acquired should be assessed objectively and quantitatively. This calls for more quantitative methods based on acquisition and processing of biological signals. Also relevant are advances in neural signal acquisition, computational decoding and encoding of neural signals, and computer and robotic technologies for rehabilitation. All of these areas have the potential to provide a standard for clinical evaluation of motor improvement, supporting rehabilitation strategy.

We invite investigators to contribute original research articles as well as review articles addressing quantitative methods for evaluating motor function and neurorehabilitation methods that facilitate advances in clinically EBR, such as brain-machine interfaces, neuroprosthetics, rehabilitation robots, and artificial sensors.

Potential topics include, but are not limited to:

- ▸ Quantitative evaluation methods for motor or sensory function
- ▸ Neuroprosthetics and rehabilitation systems
- ▸ Assistive technologies for stroke patients
- ▸ Personalized rehabilitation interfaces for adapted physical activity
- ▸ Brain-machine interfaces for motor or sensory function

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/bmri/biophysics/mem/.

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