

## Special Issue on **Assessments of Mobility, Muscle, and Bone**

# CALL FOR PAPERS

The growing field of rehabilitation and preventive medicine continually seeks to define and promote the generalizability of assessment techniques based on imaging and biomechanical trials that can eventually be implemented into clinical practice. This call aims to gather multidisciplinary scientific papers evaluating kinetic and kinematic variables associated with aging, health, and pathological condition. Medical imaging is of particular interest in this regard, as extant literature focuses on the utilization of a wide variety of techniques to noninvasively recapitulate and quantifies tissue morphologies, for example, using segmentation techniques and 3D imaging. Subject specific measurements of kinetic and kinematic variables for activities of daily living, such as gait, stair ascension, and descension, can be used as indicators for decision making in clinical treatments. Also medical image assessment, particularly for bone and muscle tissue, can provide a valid monitoring support for different rehabilitation strategies such as physiotherapy and functional electrical stimulation. A lot of the future challenges in healthcare are on improving quality of life for elderly subjects; in this concern reliable measurements on bone and muscle and techniques for assessing mobility are essential. Both imaging and biometric data can be used for this purpose.

The main goal for this special issue is to motivate multidisciplinary researchers, scientists, and clinicians to contribute to the fast growing field of quantified assessment and personalized medicine and report cases on improved rehabilitation managements of mobility impaired persons and frail elderly. Papers describing new methods and clinical utility based on medical imaging and /or biomechanical assessment with the focus on aging, health, and pathological muscle and bone are strongly encouraged. Moreover the call welcomes paper that shows interconnection between different monitoring techniques and potential implementation into the clinical practice.

Potential topics include but are not limited to the following:

- ▶ Clinical imaging (CT, MRI, US, etc.) of bone and muscle for tissue analysis
- ▶ Measurements of kinetic and kinematic variables for activities of daily living
- ▶ Biomechanical analysis of rehabilitation techniques
- ▶ Mobility and pain
- ▶ Assisted exercise
- ▶ Functional electrical stimulation
- ▶ Rejuvenation in aging
- ▶ Rehabilitation of frail elderly

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/abb/mqb/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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### **Submission Deadline**

Friday, 18 May 2018

### **Publication Date**

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