Hangzhou, China • 15–17 September 2017

TARGET AUDIENCE: The workshop is designed to engage both musculoskeletal imaging scientists, engineers and MR physicists, including students and postdoctoral students; musculoskeletal radiologists and radiology residents and fellows; orthopaedic surgeons, rheumatologists and other clinicians who are interested in using imaging measures; and epidemiologists and statisticians who are interested in OA clinical trials.

OVERVIEW

This workshop, organized by ISMRM in affiliation with the Chinese Society of Musculoskeletal Radiology (CSMR), will focus on the technical development and clinical applications of advanced MR imaging for osteoarthritis (OA), inflammatory arthritis as well as other related joint diseases. The purpose of this workshop is to engage the Chinese and Asian community in OA imaging studies, and facilitate potential collaborations; in particular, multi-center trials, including Asian population, which is currently under-engaged in the international collaboration and communication. This workshop is also endorsed by the Oversea Chinese Society of MR in Medicine (OCSMRM).

The sessions will include advanced technical development on quantitative MRI techniques at multi-scales (ex vivo to in vivo) and for multiple tissues (cartilage, meniscus, ligament, tendon, bone and muscle), as well as clinical applications of semi-quantitative (grading) and quantitative techniques. The technical aspects for both data acquisition and image post-processing will be discussed. New techniques such as PET/MRI will also be presented. Other focuses of the workshop include what we have learned from previous clinical trials and challenges of new trial design; post-traumatic OA after acute joint injury; the relationship between imaging and biomechanics; and imaging beyond the knee joints. A unique aspect of this workshop will be discussion on potential treatment of OA by traditional Chinese Medicine.

EDUCATIONAL OBJECTIVES

Upon completion of this activity, participants should be able to:

• Discuss various semi-quantitative and quantitative MRI for cartilage, bone and other tissues in the joint, including data acquisition and image post-processing;

• Analyze the advantages, limitations and challenges of each technique;

• Summarize prior and ongoing efforts in clinical applications of semi-quantitative and quantitative MRI for evaluating tissue degeneration in arthritis and other joint diseases;

• Illustrate the relationship between imaging measures and biomechanics;

• Explain prior and ongoing large clinical trials in OA imaging;

• Describe the key aspects of clinical trial design; and

• Describe the potential treatment of arthritis by Chinese Medicine.

FOR MORE INFORMATION INCLUDING HOUSING & REGISTRATION, PLEASE VISIT: www.ismrm.org/workshops/MSK17/

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