Postdoctoral Associate Position: Musculoskeletal MRI

Position Description
A Postdoctoral Associate position in magnetic resonance imaging (MRI) of bone and joint disorders is available at the University of Minnesota. This individual will primarily be responsible for conducting research in the technical development, validation, and clinical translation of quantitative MRI techniques at high (3T) and ultrahigh (7T) field strengths to diagnose and monitor early-stage ischemic and biomechanical injury to the hip joint. MRI techniques of interest include relaxation time mapping (T1ρ, RAFF, T2, and T2*), diffusion, perfusion, ultrashort-echo time (UTE) imaging, and strategies for efficient, high-resolution imaging. The work will include imaging of large animal models and human patients. The Postdoctoral Associate will also have opportunities to participate in related interdisciplinary collaborative projects to investigate diseases of the spine, knee, and bone. Funding for the position is guaranteed for three years.

Resources and Environment
The Postdoctoral Associate will join an interdisciplinary team of scientists and clinicians in comparative medicine, radiology, orthopedic surgery, and engineering. This individual will have access to state-of-the-art imaging equipment, including the vast resources of the Center for Magnetic Resonance Research (which include 3T, 7T, and 10.5T whole-body MRI scanners and 9.4T and 16.4T preclinical MRI scanners) and a new 3T MRI scanner in the College of Veterinary Medicine (to be installed in 2020). The Postdoctoral Associate will be immersed in a rich research environment and will have opportunities for career development, participation in several seminar series, and presentation of research at international conferences and workshops.

Required Qualifications
PhD in engineering, physics, computer science, or a related field
Background in medical imaging
Programming experience in Matlab, C/C++, and/or related languages

Preferred Qualifications
Strong oral and written communication skills
MRI data collection and analysis experience
MRI pulse sequence programming experience

Application Instructions
Please apply, providing a cover letter and CV, at: https://hr.my.umn.edu/jobs/ext/333292

Please direct any questions regarding the position to:

Casey P. Johnson, PhD
Assistant Professor of Medical Imaging
Veterinary Clinical Sciences Department
University of Minnesota
Tel: 612-624-2743
Email: john5037@umn.edu