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 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 disorders of the hip, knee, and spine. MRI techniques of interest include relaxation time mapping (T1p, RAFF, T2, and T2*), diffusion, perfusion, ultrashort-echo time (UTE) imaging, quantitative susceptibility mapping (QSM), and strategies for efficient, high-resolution imaging. The work will include imaging of large animal models and human subjects. 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, orthopedic surgery, radiology, 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 3T MRI scanner in the College of Veterinary Medicine. The Postdoctoral Associate will be immersed in a rich research environment and will have many opportunities for career development, including participation in 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
Strong oral and written communication skills

Preferred Qualifications

MRI data collection and analysis experience
MRI pulse sequence programming experience

Application Instructions

Please apply, providing a cover letter and CV, at:
https://hr.myu.umn.edu/jobs/ext/336580

Please direct any questions regarding the position to:
Casey P. Johnson, PhD
Assistant Professor, Department of Veterinary Clinical Sciences
Affiliate, Center for Magnetic Resonance Research
University of Minnesota
Tel: 612-624-2743
Email: john5037@umn.edu