Applications are invited for a post-doctoral position at the Center for Magnetic Resonance Research, University of Minnesota. The primary purpose of this role will be to develop multi-modal MRI and MR spectroscopy technology on 9.4T and 16.4T scanners. A major focus area will be characterization of cerebello-cortical networks in healthy and diseased mice with cerebellar deficits using optical and MR imaging technology in a collaborative initiative.

The cerebellum contains 3.6 times more neurons than the cerebral cortex across species, comprising enormous computational capacity in only 10% of the total brain volume. It is intricately connected to the cerebral cortex via the two largest networks in the CNS. The successful applicant will be part of a multi-disciplinary team comprised of investigators from the Medical School, College of Science and Engineering, and School of Public Health. The team aims to dissect the role of the cerebellum in the regulation of motor and non-motor function in health and disease using a combination of invasive, cell level measurements of connectivity and neural activity with noninvasive, large-scale MR measurements of function, connectivity and neurotransmitter dynamics.

The position requires a PhD in Physics, Biomedical/Electrical Engineering, Chemistry, Biochemistry, Biomedical/Electrical Engineering, Biophysical Sciences or a related field. Experience with in vivo MR methods, demonstrated ability to conduct collaborative research and excellent communication skills are essential. Experience with image analysis (e.g. Unix environment, programming/scripting in Matlab, Bash, Python) is a plus. Experience in data acquisition and programming on the Bruker platform is highly desirable. Prior experience in preclinical research and in the fields of neuroscience, structural and functional connectivity analyses and magnetic resonance spectroscopy is preferred.

Questions regarding this position may be sent to Dr. Gülin Öz.