

**Position Title:** Postdoctoral fellow, MRI guided Focused Ultrasound

**Program/Centre Name:** Centre for Image Guided Innovation and Therapeutic Intervention

**Status:** Full-time

**Hiring Manager:** Dr. Mojgan Hodaie

**Primary Responsibilities:**

We are collaborating with The Centre for Image Guided Innovation and Therapeutic Intervention at the Hospital for Sick Children to develop novel innovative surgical tools incorporating imaging, robotics and simulation. This project will interface development of new therapeutic tools with state of the art imaging of the brain. We offer an energetic atmosphere that fosters creative ideas and collaborations with renowned researchers. As a key member of the Hodaie lab, you will provide technical expertise and support in developing and implementing brain imaging methods for investigation into novel neuroanatomical research using animal models.

Your responsibilities will include the following duties:

- Developing and implementing customized protocol and software interfaces for image acquisition and diffusion MR and tractography analysis in Matlab, Python and R.
- Analyze Diffusion MR for novel neuroimaging and neuroanatomical research in animal models.
- Work with our collaborative partners in MRI and focused ultrasound engineering at the Hospital for Sick Children.

**Minimum education, key qualifications and experience required:**

As the ideal candidate, you will possess the following characteristics:

- Ph.D. in medical physics, physics, electrical engineering, biomedical engineering or other related engineering areas with interest in neuroimaging OR Ph.D in neuroscience or related fields with relevant programming experience
- Expertise in one or more of the following areas: HARDI MRI imaging acquisition, Diffusion MR tractography and analysis
- Expertise in one or more languages/tools: Matlab, Python, R, strong scripting or programming ability preferred
- Expertise in one or more neuroimaging software/tools: 3D Slicer, FreeSurfer, FSL, ANTs and SPM, prior work in image analysis preferred
- Ability to work independently and deliver on schedule
- Excellent interpersonal and communication skills
- Committed to continuous learning and improvement

If this position sounds exciting and matches your qualifications, please send your CV/resume to [mojgan.hodaie@uhn.ca](mailto:mojgan.hodaie@uhn.ca) and [pyee@uhnres.utoronto.ca](mailto:pyee@uhnres.utoronto.ca)