Postdoctoral Positions in Translational Neuroimaging

Multiple postdoctoral positions are available at the Barrow Neurological Institute (BNI) working with Drs. Richard Dortch and Zhiqiang Li as part of a collaborative effort between the Barrow Neuroimaging Innovation Center and the Departments of Neuroradiology, Neurosurgery, and Radiation Oncology. This translational work will focus on developing, optimizing, and validating advanced data acquisition, image reconstruction, artifact correction, post-processing, and data analysis techniques for brain and spinal cord imaging, with a focus on immediate clinical integration and research applications. Applicants will have opportunities to directly interact with neuroradiologists, neurosurgeons, radiation oncology medical physicists, and industrial collaborators. Motivated candidates will also have opportunities to develop independent and relevant research projects.

Applicants should have a Ph.D. in physics, engineering, or a related discipline. Competitive candidates will have experience with pulse sequence/image reconstruction development and/or quantitative MRI acquisition/analysis. Hands-on experience with the GE or Philips pulse sequence/recon programming environment is preferred but not required.

These positions, which are fully funded for 2 years (renewable for up to 3 years based on performance), are available immediately with competitive compensation and benefits.

BNI is the world's largest neurological disease treatment and research institution, and the Department of Neurology at BNI is a recognized leader in the field. Additionally, Barrow is ranked #11 by *U.S. News & World Report* in the neurology and neurosurgery category. *Recently, Neuralink's first human implantation was performed at the BNI and MRI data were acquired to support the surgery* (https://neuralink.com/blog/prime-study-progress-update/).

Outstanding imaging resources are available at BNI, including eight clinical scanners, two research 3T scanners (GE and Philips), a 7T preclinical Bruker MRI, microCT, microPET, and optical imaging scanners. The Barrow Neuroimaging Innovation Center has a long-standing tradition of developing new imaging technologies and bringing them to market. To facilitate this, we have established strong collaborations with GE and Philips Healthcare, ensuring that the novel imaging methods developed at BNI are translated into product sequences for widespread dissemination. BNI is also a major hub for neuroscience research and a wide range of neurology subspecialties. In support of this effort, the Barrow Neurological Foundation provides robust philanthropic support exceeding $18M/year, all of which benefits patient care, research, and education at BNI.

Phoenix is the 6th largest metropolitan in the United States and the 2nd fastest growing city. Phoenix is a beautiful place to live and work, boasting more days of sunshine and a lower cost of living than most comparable cities. A rich culture can be found in Phoenix, including theatre, concerts, museums, sports, and great food. With a moderate climate most of the year, many Phoenicians enjoy an active lifestyle of hiking, cycling, rock climbing, swimming, and golf.

Interested applicants should send a current CV and the names of three references to Richard Dortch, Ph.D. (Richard.Dortch@barrowneuro.org) and/or Zhiqiang Li, Ph.D. (Zhiqiang.Li@barrowneuro.org). In-person meetings in Singapore can be arranged.