The goal of our program is to study normal brain development, and the causes and consequences of early life brain injury in the high-risk fetus and newborn. Our current research focuses on the development of novel MRI acquisition and image analysis techniques to support early and reliable biomarker discovery of imminent injury in the compromised fetus (please see: www.DevelopingBrainResearchLab). To achieve this, we are re-engineering exiting technology and developing state-of-the-art imaging and motion correction tools to accomplish high-resolution imaging of the fetal-maternal unit in vivo. The MRI facilities in the Children’s National Health System include three 1.5T scanners and two 3.0T scanners. Our main computational cluster consists of 16 compute nodes, each with dual Xeon 14-core processors, connected via 10GbE switch to a master node with dual Xeon 14-core processors. 2 GPU nodes, each with dual P100s provide GPU processing and > 60TB hard disk storage.

We are seeking an exceptional research scientist to fill an Assistant Professor (or above) Technical Director Position. The successful applicant will join our multidisciplinary team of biomedical engineers, computer scientists, MRI physicists, neuroscientists, radiologists, neurologists, neonatologists, cardiologists, and nurses.

Applicants for this position must have a Ph.D. in Bioengineering, Electrical Engineering, Physics, Computer Science or Related field, and a minimum of 5 years of experience in developing registration algorithms for the compensation of tissue motion and deformation of various anatomical structures, including the brain, placenta and heart. The successful candidate will lead the development of biomedical image analysis processing tools for fetal/neonatal diagnostic imaging and interventional image guidance. The work will be centered around real-time imaging and reconstruction methods with a focus on well-engineered solutions that can be developed, tested and implemented in a clinical setting to image the fetus and newborn infant. The MRI staff scientist will be responsible for conducting independent research in the field of biomedical image analysis, support clinical projects and supervise undergraduate, graduate and postgraduate trainees.

We are looking for a candidate with strong communication skills, who will work well with our diverse, dynamic group; aggressively pursue research; and publish at a high rate. Applicants should send a brief statement of research interests, their curriculum vitae and contact information for at least three references to Dr. C. Limperopoulos: climpero@childrensnational.org

Applications and requests for further information should be sent to:

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Vice Chief of Research, Division of Diagnostic Imaging and Radiology
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