Vanderbilt University Institute of Imaging Science (VUIIS) is seeking postdoctoral research fellows or research scientists to work on MRI RF hardware. The VUIIS (https://vuiis.vumc.org) is a University-wide interdisciplinary initiative that unites scientists whose interests span the spectrum of imaging research from the underlying physics of imaging techniques to the application of imaging tools to address problems such as understanding brain function. Anyone with a related Ph.D. degree and an interest in MR instruments is encouraged to apply.

**Specific tasks:**
- Traveling/standing wave to highly improve imaging quality in Transcranial MR-guided focused ultrasound (tcMRgFUS) neurosurgery
- Transmit and receive RF coils for 7T human imaging
- Transplantation of clinical scanners’ state-of-art RF coil technologies to small-bore preclinical scanners
- Flexible, wearable, and stretchable self-decoupled dense arrays

**Requirements:**
- Ph.D. degree in Engineering, Physics or a related field
- Knowledge of RF/Microwave circuit
- Hands-on experiences of RF coil or other RF-related circuits

**Highly desired:**
- Familiarity with MRI
- Familiarity with electromagnetic simulation
- Familiarity with PCB and mechanical design

**Facilities:**
- Two 3-Tesla and one 7-Tesla Philips whole-body human scanners, and a bunch of Bruker and Varian animal scanners from 4.7 Tesla to 15 Tesla.
- RF lab with all kinds of instruments and equipment, including four VNAs, PCB milling machine, dielectric probe, etc.
- Machine shop with two 3D printers, and a full-time mechanical engineer can assist the individual with RF coil housing design.

**How to apply:**
Please send a full CV and a brief statement of research interest to Dr. Xinqiang Yan (xinqiang.yan@vanderbilt.edu) or Dr. John Gore, director of VUIIS (john.gore@vanderbilt.edu).