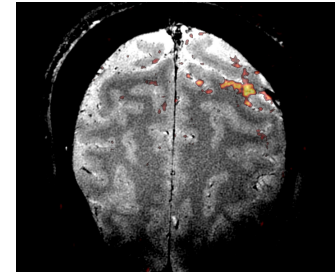


**Post-Doctoral Fellow**  
**Reports to Uzay Emir, Purdue University**  
**Location: Purdue University West Lafayette, Indiana**  
**Application and Inquiries should be directed to Dr. Uzay Emir**  
**at [uemir@purdue.edu](mailto:uemir@purdue.edu)**



**Job Description**

Our lab focuses on high and ultra-high field (i.e., 7T) magnetic resonance imaging (MRI) and spectroscopy (MRS) of the human brain. One of our projects is the Wellcome Trust (United Kingdom) funded Inhibitory brain dynamics for adaptive behavior.

**Exciting neuroimaging MRI physicist post work with Dr. Uzay Emir at Purdue University** as part of an international team on a new multidisciplinary project led by Prof Zoe Kourtzi (University of Cambridge) collaborating with Dr. Guy Williams (University of Cambridge) and Dr. Stephen Sawiak (University of Cambridge) to uncover mechanisms for learning & plasticity. **Purdue University's MRI Facility the Purdue University MRI facility is a Purdue Core facility as well as an Indiana CTSI Core Facility and houses three MRI scanners dedicated purely to research: a 3T Siemens PRISMA, a 3T GE MR750 scanner, and a 7T small animal Bruker scanner.** The research activity is at the core of a new Wellcome Trust-funded Collaborative award that brings together a cross-disciplinary team of international experts to investigate the role of GABAergic inhibition in regulating brain network dynamics for adaptive behavior. Our work program bridges work across species (mice, humans) and scales (local circuits, global networks) to uncover the network and neurochemical mechanisms that support learning and brain plasticity.

**This work involves expertise in the fields of magnetic resonance imaging (MRI) and spectroscopy (MRS), pulse sequence development, image analysis, and database management. It will also involve writing procedures, manuscripts, and sections of grant proposals.**

**Required Qualifications**

- PhD in physics, biophysics, biomedical engineering, computer science, mathematics or similar field, or MD/PhD
- Experience in image analysis, ideally structural MRI analysis and software programming
- Track record of scientific productivity such as publications

**Preferred Qualifications**

- Understanding of magnetic resonance theory
- Experience in deploying MRI protocols to address biomedical research questions
- Experience in the pulse sequence coding
- Experience in MRI data analysis
- Excellent quantitative skills (e.g., a sound grasp of mathematics)
- Understanding of the demands of collecting complex brain imaging data.
- Ability to work safely in a high-field MRI environment
- Hands-on experience with neuroimaging and experience with neurocognitive research.
- Experience with Siemens, Bruker MRI platforms
- Programming in Siemens IDEA environments

