



## Postdoctoral Position

CMRR, University of Minnesota, MN, USA

### USA-France collaborative project: High Resolution, Multi-Contrast, Hippocampus MRI in Humans at 7 Tesla

The Center for Magnetic Resonance Research (CMRR), University of Minnesota, seeks a post-doctoral associate to develop **MR methods at 7 Tesla** to explore at **very high spatial resolution**, with **multiple contrasts** the **inner anatomical structures of the hippocampus** in **controls** and in **epileptic subjects**.

This position is part of an international USA-France project funded by NSF and ANR, aiming at developing new computational neuroanatomical methods and MR-based biomarkers in Brain diseases.

The successful candidate will develop and optimize high resolution MR acquisition at 7T with multiple contrasts (T1, T2, T2\*, QSM,...) while addressing head motion and susceptibility induced artifacts and evaluating sparse acquisition strategies. Starting date: from **January 2017**.

#### Exceptional environment, collaboration and mentoring

The CMRR in Minneapolis is a cutting edge MR research center, renowned for its pioneering role in ultra high field MR scanners in humans, hosting two 7T and one 10.5T whole body human scanners. The primary mission of this position will focus on MR methods at high field including sequence development. The candidate will be exposed to a rich, multi-disciplinary mentoring environment based in the USA (at the University of Minnesota) and in France (at the ARAMIS Lab – Brain and Spine Institute, and in Neurospin), including, in the USA, advanced MR methods at high field (P.F. Van de Moortele), Neurology and Epileptology (T. Henry) and, in France, Neurocomputational sciences (O. Colliot and collaborators) and 7T MRI in children (L. Hertz-Pannier and collaborators). The mentoring component of this position includes training for data analysis with the ARAMIS Lab.

#### Requirements

- PhD in Medical Imaging, BioMedical Engineering, Physics or related field.
- Programming skills in Matlab, C or C++ (or equivalent).
- The ideal candidate is knowledgeable in MR physics and MR acquisition.
- Experience with MR sequence programming would be a plus.
- High motivation, good communication skills.

#### How to apply

Applicants for this position must submit a curriculum vitae and three references to:

Dr. Pierre-Francois Van de Moortele  
Center for Magnetic Resonance Research  
2021 6<sup>th</sup> Street SE  
Minneapolis, MN 55455, USA  
[pfvdm@cmrr.umn.edu](mailto:pfvdm@cmrr.umn.edu)