

Permanent position in high-resolution human functional MRI at NeuroSpin

NeuroSpin, France's research center for innovation in brain imaging technologies, is opening a **permanent position for a research scientist in high-resolution human functional MRI**. This is a pure research position, without any teaching requirement. We are looking for an experienced principal investigator. Both junior and senior candidates are welcome, and the salary will be modulated according to experience.

Candidates should have a dual-track record: (1) a proven capacity to develop **methods that push the spatial resolution of functional MRI** and relate it to its anatomical substrate. (2) a **strong publication record in any domain of cognitive neuroscience**, either fundamental or clinical.

Past experience could include one or more of the following:

- fMRI sequence development, reconstruction and post-processing methods
- Detailed fMRI mapping of individual subjects
- High-resolution visualization of cortical maps or cortical columns
- Determination of cortical codes (e.g. tuning curves, coding schemes...)
- fMRI dissection of the functional role of cortical layers
- Comparison of fMRI signals with intracranial and/or single-cell recordings
- Relation of fMRI signals to anatomical and diffusion signals.

Candidates are expected to **develop their own research program using the 7 T and 11.7 T human magnets** available at NeuroSpin, while collaborating with the existing in-house teams. They will benefit from a dynamic scientific environment including scientists and support groups already working in all aspects of functional, anatomical and diffusion MRI as well as spectroscopy, from coil design to MR sequence development and reconstruction.

The 7 T magnet is a state-of-the-art Siemens magnet, upgraded in early 2018 with **the novel connectome whole-body gradient set running at 100mT/m**, and fully equipped with visual, auditory, and eye-tracking devices. The 11.7 T is a world-premiere that will be up to field in late 2018, initially devoted to animal experiments, and seeking approval for human experiments around 2020-2021.

Please send your letter of intention (1-2 pages), CV, and letters of recommendation, **before December 31st 2017**, to


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- The marriage of Neuroscience and Physics
- France's main platform for innovation in brain imaging technologies
- Spanning the spectrum from whole-brain imaging in humans to circuit imaging in animals
- A major center for neuro-informatics, with MRI and electrophysiological data from thousands of normal and impaired brains


NeuroSpin

France


3 scanners for human MRI at 3T, 7T, and soon 11.7 T



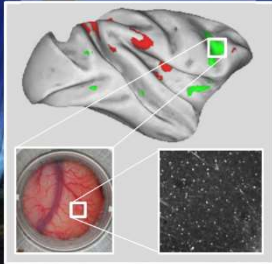
Advanced behavior, electro- and magneto-encephalography















3 scanners for small animals at 7T, 11.7T and 17T



Animal fMRI and soon 3-photon imaging





European Research Council