

Post-doctoral position in multiparametric MRI of nonalcoholic steatohepatitis

A postdoctoral position in multiparametric hepatic MRI is currently available at the Laboratory of Imaging Biomarkers in the Center of Research on Inflammation UMR 1149 INSERM - University Paris Diderot.

Job description

Quantitative MRI offers promise in the diagnosis of inflammation and fibrosis in patients with nonalcoholic steatohepatitis (NASH), a frequent complication in type 2 diabetes. The Quid-NASH project in our laboratory aims to develop and validate multimodal non-invasive biomarkers of NASH which will result in a "virtual liver biopsy". Particularly, MR imaging will be used to provide physical quantification of mechanical properties, proton density fat fraction and derived metrics, magnetic susceptibility, water diffusivity, T2 and T1 relaxation times. Moreover, in small animal models of NASH, MRI will be combined with simultaneously acquired ultrafast ultrasound imaging in a hybrid approach. Radiomic analysis and heterogeneous data integration will be part of the project. The successful candidate will play a key role in the clinical and preclinical studies of the Quid-NASH project. The candidate will be in charge of the development and optimization of the advanced image acquisition procedures. The candidate will ensure rigorous scientific conditions throughout the clinical trial and the small animal studies by interacting with the clinicians and scientists in the project.

Work environment

The Center for Research on Inflammation Research, Inserm unit UMR1149, was created in 2014 and is distributed on the Bichat and Beaujon university hospital sites in Paris. The team "Laboratory of Biomarkers in Imaging", led by Prof. Bernard Van Beers, has as main objective the development of new imaging biomarkers for liver and abdominal diseases. This objective is pursued mainly with MRI through fundamental, methodological and applied approaches in preclinical and clinical studies. Involving researchers, medical doctors and engineers, the research team is characterized by strong interdisciplinarity.

Candidate profile

The successful candidate should have a MD or a PhD in physics, applied mathematics or biomedical engineering with strong expertise in quantitative MR imaging and C++ and Matlab programming. Skills in ultrafast ultrasound imaging and radiomics will be highly appreciated. Knowledge in liver physiopathology will also be strongly valued. The candidate should be fluent in English (and preferably in French), have good communication skills to interact in different research fields (physics, biology, radiology, hepatology, pathology, computer science) and high rigor in methodological approaches.

Recruitment

The position has a 12-month initial employment basis and is renewable.

To apply, please email your curriculum vitae, scientific publications in the research field and a cover letter stating your interests and future goals to:

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