Doctoral Position in Cardiovascular MRI

The LIRYC (Electrophysiology and Heart Modelling Institute - vimeo) diagnostic imaging team in Bordeaux and the Department of Radiology at the Lausanne University Hospital (CHUV) are looking for a highly motivated PhD candidate in the area of cardiovascular magnetic resonance imaging.

This position is available immediately and for the expected duration of 3 years. The research project will be in strong collaboration with the Centre Hospitalier Universitaire Vaudois (CHUV) in Lausanne, a worldwide renowned cardiac MR research center, as well as with the Centre Hospitalier Universaire (CHU) of Bordeaux and industrial partners, including Siemens Healthineers. This position is an excellent opportunity for a young and motivated scientist to perform cutting-edge research in a unique cardiac MR center through collaborations with scientific experts, clinicians and medical industry.

Project Description: Late gadolinium enhancement (LGE) magnetic resonance imaging (MRI) is a widely used imaging technique to assess the fibrotic substrate of scar-related ventricular tachycardia and to guide ablation procedures. Unfortunately, many patients do not undergo MRI because of the presence of pacemakers and implantable cardioverter defibrillators (ICD) causing considerable image artefacts on MRI. The PhD candidate will develop novel MRI techniques for artifact-free LGE imaging in patients with ICDs. The developed techniques will be tested, optimized and validated on phantom, animal models, healthy volunteers and finally in patients in collaboration with medical professionals.

Facilities: This Doctoral position will be embedded in a translational, multidisciplinary, collaborative, and international environment. The candidate will further be able to spend time both in Bordeaux and in Lausanne while the home base will be in Lausanne.

Requirements: Required education level in computer science. Computer programming skills are a requirement, while pre-existing experience with MRI pulse sequence programming will be a distinct advantage for the candidate. Flexibility for frequent travel between Bordeaux and Lausanne.

To apply: Should you be interested, please submit a CV and brief research statement to Aurelien Bustin, PhD (aurelien.bustin@ihu-liryc.fr), or visit www.unil.ch/cvmr.

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BORDEAUX