Post-doctoral Fellow position for developing new family of MRI probe based on innovative additive manufacturing process

A 2-years postdoctoral fellow position is available at the University Claude Bernard Lyon 1, Villeurbanne France. The postdoctoral fellow will participate in a multi-disciplinary research program that develops novel MRI coils dedicated to tissue engineering 3D characterization[i]. The postdoctoral fellow will work as part of different research groups (AMPERE[ii], 3DFAB[iii] and LGEF[iv]) as well as a group of graduate students, postdoctoral fellows, faculty and scientists in the AMPERE lab as many of the work will be developed on its "plastronic" platform[v].

Primary research area focus

1) Integrating monitoring devices for *in vivo* imaging of engineered tissue constructs: heating and gas administration systems, optical physiological sensor, smartly Interfacing RF coil and peripherals to control devices. Designing dedicated MRI coil for in vivo imaging could be necessary.
2) Imaging with one multifunctional "MRI probe": coil characterization by imaging and comparison with measurements on bench. After validation of the MRI probe, the design will be replicated to be tested by non-expert on different platforms of the French network of in-vivo imaging[vi].

Responsabilities

All applicants will be expected to utilize and extend state-of-the-art MRI instrumentation to developed new tools to facilitate imaging of biological constructs *in vivo*. Specifically, the main tasks will involve coil design/fabrication, integration of peripherals such as piezo-actuators for magnetic resonance elastography, data collection, management and analysis, image post-processing, multi-parametric cohort analysis.

Eligibility Requirements

Applicants must have a PhD in biomedical imaging, engineering, or related fields. Experience in MRI coil designed and fabrication is highly desirable as well as in innovative manufacturing process. The ideal candidate will be highly motivated, reliable, and will be equally productive when working independently or cooperatively.

How to apply

Applicants should email a CV along with two references and recent research interests and activities to be sent to simon.lambert@univ-lyon1.fr

[i] https://simonlambert29.wixsite.com/anrestimate
[ii] http://www.ampere-lab.fr/?lang=en
[iii] http://fabric-advanced-biology.univ-lyon1.fr/
[iv] https://lgef.insa-lyon.fr/en/
[v] http://www.plastronique.com/
[vi] https://www.francelifeimaging.fr/en/about/