Post-Doctoral position

The laboratory in Biology, Bioingineering and Bioimaging for Osteo-articular tissues (www.b3oa.cnrs.fr) in Paris has an open post-doctoral position on the biological evaluation of new hydroxyapatite-based biomimetic biomaterials for bone applications.

Synthetic calcium phosphate (CaP) based- biomaterials (such as hydroxyapatite and / or tricalcium phosphate) are widely used as bone graft substitutes. Although osteoconductive, these materials remain unsatisfactory for the repair of large bone defects. Enhancing their therapeutic efficacy involves an improvement of their pro-osteogenic and resorption properties. New generations of CaP-based biomaterials, therefore, are attempting to chemically mimic bone tissue more effectively. Thanks to collaboration with the Center for Biomedical and Healthcare Engineering (CBH) in St Etienne, this project aimed at highlighting the role of ion substitutions (carbonate and/or silicon) in hydroxyapatite ceramics on the bone cell activity in order to determine the optimal ionic substitution for bone regeneration. In this project, the cellular responses (osteogenic progenitors, macrophages and osteoclasts) to the materials will be carried out both in vitro and in vivo.

Profile and skills of the candidate:
- Hold a PhD in a Biomedical Science field.
- Experience in Cellular and Molecular Biology Techniques (including RT-qPCR, flow cytometry, cell adhesion and cell migration assays), imaging (including confocal microscopy).
- Experience in 3D culture and / or osteoclast culture would be a plus.
- Experience in animal experimentation.
- Effective communication skills, ability to work independently and effectively.

The position is open for 1 year; The application dead line is July, 15th, for a position to be opened in September, 1rst or October 1rst 2020. Applicants should submit a presentation letter, a curriculum vitae including a full list of publications and at least two references to delphine.logeart@cnrs.fr