



Postdoctoral Research Position on ectopic calcification at IMoPA, Nancy, France

We are seeking for a highly motivated postdoctoral fellow to join our lab. The position is funded by a European Joint Programme on Rare Diseases (EJP-RD) research project and is immediately available.

Research project: Ectopic calcification can occur in chronic diseases like diabetes or chronic kidney diseases (CKD) but also in rare inherited diseases. Among the latter, Keutel syndrome (KS) is a rare autosomal recessive genetic disorder, that was first identified back in 1971. Patients with KS present major traits that include malformations of skeletal tissues (e.g., midface hypoplasia and brachytelephalangism), cardiovascular defects (e.g., congenital heart defect, peripheral pulmonary artery stenosis and in some cases arterial calcification) and respiratory problems (dyspnea, cough, wheezing or frequent infections). In 1999, KS has been attributed to loss-of-function mutations in the gene coding for the matrix Gla protein (MGP). Indeed, studies on *Mgp*^{-/-} mouse, a faithful model of KS, have shown that ectopic calcification in cartilaginous and vascular tissues is the primary cause underlying many of the abnormalities present in KS patients. However, the mechanisms explaining how MGP prevents abnormal calcification remain poorly understood.

We recently obtained with 3 partners in Canada, Portugal and Germany a H2020 European funding to better understand the role of Matrix Gla protein in the mechanisms of ectopic calcification. The candidate project will focus on investigating the function of MGP in tracheal and skeletal calcification. This objective will be achieved by the use of the *Mgp*^{-/-} mouse model, as well as new genetic models generated by other partners.

Location : The team is working at the IMoPA laboratory, located at the Faculty of Medicine in Nancy, France (<https://imopa.cnrs.fr/en/home/>). It offers state-of-the-art facilities and platforms and is part of the Biology, Medicine and Health (BMS) Scientific Department (<https://bms.univ-lorraine.fr/en>)

Profile: The candidate should have a PhD or equivalent degree in Life Sciences. Prior expertise in cartilage biology is desirable but not required. Skills in cellular and molecular biology, and in histology are a plus. Prior work with mice as a model organism is strongly preferred. Autonomy, ability to carry out a project and faculty to work with colleagues are a requisite.

There is no citizenship requirement. Knowledge of French is welcomed but not mandatory. Due to the international network of the project, the candidate should feel comfortable working, writing and presenting in English.

Application: Interested individuals should send a cover letter briefly describing relevant work experience and research interests, a CV and recommendation letter(s) or contact information of at least one referee to Hervé Kempf at herve.kempf@inserm.fr. Funding is available for full time position with an initial 1-year contract, and high probability for 1-year renewal. Salary will be commensurate to previous experience and in line with ANR guidelines (gross income starting at 2700€/month) Applications will be reviewed as they arrive and accepted until the position is filled. Candidates are urged to submit their application as soon as possible.

For additional information on the group, the project and/or the application, please contact Hervé Kempf, PhD at herve.kempf@inserm.fr