

Post-doctoral position in organic chemistry

Context: Over the last decade, bimodal imaging has attracted increasing attention, in particular the complementary combination of Position Emission Tomography (PET) and Optical Imaging (OI). The two-photon absorption (TPA) exploitation allows for a better resolution in imaging. The use of a unique platform bearing a radioactive agent (for PET), a biphotonic fluorophore (for OI) but also a ligand for in vivo targeting is challenging. Such molecular systems will open the way to dual tracers which could be useful diagnosis and biological tools.

Objective: In this context, applications are open for a postdoctoral fellowship position funded by the “FireLight” project-FEDER – Photoactive molecules and nanoparticles. The position will be based at L2CM laboratory in Nancy (France). The research program will focus on the synthesis of a carbohydrate-based platform bearing a bifunctional chelating agent for radioisotope incorporation or a leaving group for fluorine-18 labeling, a biphotonic fluorophore and a ligand for in vivo targeting. The synthetic challenge will be important to manage the incorporation of such entities on a saccharidic platform. These dyes will then be radiolabeled and evaluated in microPET and optical imaging.

Skills/Qualifications: Candidates for this postdoctoral fellowship must hold a PhD degree in organic chemistry, experience in carbohydrate chemistry will be appreciated. Autonomy and strong reliability are highly required. All applicants must be able to communicate fluently in French and/or English. The position is available for a period of 18 months, starting from October 2020.

Selection process: Candidates send a CV, a scientific track record and a motivation letter

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Application deadline 25 July.