



FICHE DE POSTE

NATURE DU POSTE :

Chercheur de type Post Doc - Article L954-3

Quotité 100 %

Rémunération brute mensuelle : IB 701 - 2823 €

Poste à pourvoir au 01/02/2023

CDD 12 mois

Affectation : UJM – LABORATOIRE DE BIOTECHNOLOGIES VÉGÉTALES
APPLIQUÉES AUX PLANTES AROMATIQUES ET MÉDICINALES

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CONTEXTE

We are looking for you that want to establish a career within Plant biochemistry and molecular biology with a strong focus on terpenoid biochemistry. At Jean Monnet University, Saint Étienne, France you will be able to break new grounds within Plant Biochemistry and join a research project that go beyond current knowledge within plant biochemistry.

We want to explore how early divergent land plants like liverworts produce fragrance molecules, and why they do this. Using contemporary DNA sequencing technology, and well-established genetic engineering of the plants *Physcomitrium patens* and *Nicotiana benthamiana* we will perform biochemical characterization of the fragrance enzymes from the liverwort *Frullania tamariscii*.

The two model plants are often used to study plant enzymes, and will serve as a good starting point for these studies. The fragrances of *F. tamariscii* has previously been used in perfumes, and with this new research project this might become relevant again. As part of the project, funded by the Élan Recherche 2022 program at Jean Monnet University, we will explore this and other liverworts for new potential fragrance molecules.

MISSIONS et POSITION DU POSTE

Under the hierarchical and functional authority of Professor Henrik Toft Simonsen, the person recruited will be responsible for running the research project on fragrances of *F. tamariscii*.

ACTIVITES

1-Expertise méthodologique et technique

Your overall focus will be to perform enzyme biochemical characterization with special focus on the sesquiterpenoid tamariscol and its biosynthesis. You will strengthen the research groups ability to perform fast enzyme characterization of multiple enzymes, and also enable the use of fast analytical methods like head-space and SPME GC-MS. You will work closely together with colleagues in the Laboratory of Plant Biotechnologies applied to aromatic and medicinal plants (LBVPAM, Saint Étienne, France). Your primary tasks will be to be perform molecular biology and biochemical assays with the focus on tamariscol biosynthesis.

2-Pilotage de projets

Secondly you will also participate in the supervision of Master and Bachelor students affiliated to you project, and in general help with the maintenance of our laboratory.

3-Animation scientifique et valorisation

Part of the job is also to promote research within fragrances, both through public outreach and scientific papers. During the course of the Post Soc we wish to make a small promotional video along with a few other projects, thus participation in this is also part of the job.

COMPETENCES ET CONNAISSANCES PROFESSIONNELLES

We are looking for a talented and creative new team member. The successful candidate holds a PhD degree within Plant molecular biology and biochemistry and have a proven track record of engineering both *Physcomitrium* and *Nicotiana*. The candidate should be highly motivated, have a strong interest in plant biochemistry, and demonstrated expertise in plant molecular biology, plant metabolite engineering, plant biochemistry and metabolomics. Previous substantial experience with molecular techniques and *Physcomitrium patens* or *Nicotiana benthamiana* as a model system is preferred.

Communications and presentations at international conferences, as well as research experience in a country different from the country of origin are also considered assets. Experience in supervision of Master and Bachelor students is another plus.

We offer

We offer a creative and stimulating international scientific environment, and access to state-of-the-art technologies. LBVPam is a leading laboratory in plant fragrance biochemistry and is globally recognized for the excellence of our research, education, innovation and scientific advice. We offer a rewarding and challenging job in an international environment. We strive for academic excellence in an environment characterized by collegial respect and academic freedom tempered by responsibility.