

BryoMolecule Post Doc in Bryophyte Terpene biochemistry



HR EXCELLENCE IN RESEARCH

Type: Post Doc

Start of the position 01/09/2024

The contract is for 36 months.

Affiliation: Laboratoire de Biotechnologies Végétales aux Plantes Aromatiques et Médicinales, Université Jean Monnet (UJM), St. Étienne, France

<https://lbvpam.univ-st-etienne.fr/fr/index.html>

Contact for HR: recrutementsujm@univ-st-etienne.fr

Contact for the Laboratory: henrik.toft.simonsen@univ-st-etienne.fr

Application deadline : 5th of May, 2024

CONTEXT

We are looking for you that want to continue your research career within Plant biochemistry and molecular biology with a strong focus on terpenoid biochemistry. At Jean Monnet University, Saint Étienne, France you will join the EU Horizon Europe project, BryoMolecules that go beyond current knowledge within bryophyte terpenoid biochemistry. You will enable the discovery and characterization of novel enzyme bryophyte biochemistry.

We want to explore how early divergent land plants like liverworts and mosses produce bioactive 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 terpenoid related enzymes from the mosses and liverworts selected as part of the BryoMolecules project.

The two model plants are often used to study plant enzymes, and will serve as a good starting point for these studies. The bioactive molecules discovered in the project are novel, and thus we also need to establish the biosynthesis of novel terpenoids, both simple terpenes and more complex sesquiterpene lactones. BryoMolecules have a strong focus on industrial application, thus this work will be performed in close contact will industrial as well as academic partners in BryoMolecules.

The position

The post doc will work under the supervision of Professor Henrik Toft Simonsen. The person recruited to the post doc will be responsible for running the research project together with two PhD students also part of the project.

ACTIVITES

Your expertise in methodologies and technics

Your overall focus will be to perform enzyme biochemical characterization with special focus on the sesquiterpenoid biosynthesis from bryophytes. 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 our laboratory. Your primary tasks will be to be perform molecular biology and biochemical assays in the frame work of the EU project BryoMolecules. Thus, it is vital that you have previous experience within cloning of enzymes, plant biochemical characterization and plant molecular biology.

You will also participate in the supervision of Master and Bachelor students affiliated to the project, and participate in the day to day maintenance of our laboratory.

Scientific promotion

Part of the job is also to promote research within terpenoids, 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 this position.

PROFESSIONAL SKILLS AND KNOWLEDGE

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 is should have a proven track record of plant enzyme characterization. The candidate should be highly motivated, have a strong interest in plant biochemistry, and preferably demonstrated expertise in plant molecular biology, plant metabolite engineering, and plant 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 and participation in an international research project. We strive for academic excellence in an environment characterized by collegial respect and personal responsibility.

Application

Please sent your application to recrutementsujm@univ-st-etienne.fr before the deadline **5th of May, 2024**, it should include

- Letter of motivation
- CV (including personal information)
- Publication list
- Diploma/transcript of Master degree and PhD degree