

Temporary Postdoctoral position in Biochemistry/ Biotechnology

1-year postdoctoral position in the framework of the project - *MicroAlgae Continuous Extraction by Pulsed Electric Field: MiACE-PEF*, co-funded by ADEME (Graine), led by ASMA (ARTZAINAK group) in collaboration with UPPA (SIAME laboratory and IPREM laboratory: MANTA chair) and APESA

Project description/Duties:

The MIACE-PEF project consists in developing a continuous extraction process demonstrator to obtain extracts from microalgae biomass using pulse electric fields. The overall objective will be to propose an innovative method to extract various bioactive compounds that could be used in a broad range of application fields such as pharmaceuticals, cosmetics, green chemistry, agriculture...

Microalgae cultivation use very few arable land, the open-ponds or photo-bioreactor culture can be intensified and energy efficient. Furthermore, microalgae represent a seemingly limitless source of bioenergy, food or potentially bioactive compounds. All of these reasons make microalgae biomass a great interest and hope for the development of a new circular bioeconomy. Today, multiple research projects aim to develop innovative culture process but there are still few projects to develop innovative downstream processes to extract the bioactive compounds at an industrial scale. The MIACE-PEF project is divided in several tasks involving the different partners, from the production of the microalgal biomass to the development of the continuous process and construction of the industrial demonstrator. This 1-year postdoctoral position will be integrated in the overall MIACE-PEF project and will aim to develop innovative green extraction processes from the microalgae biomass produced in the previous steps of the project. Various chemical, physical or biological extraction processes will be considered. The position includes research, supervision of undergraduate students, write scientific reports and publications and meetings with partners/collaborators.

Research Group:

Host Lab: MANTA team is hosted by IPREM that is a joint Research Unit CNRS/UPPA (UMR 5254) in Pau and Anglet, France. IPREM has an extensive and highly competitive research program that encompasses fundamental research in physical chemistry, analytical chemistry and microbiology, as related to the molecular structure of the living world, environmental management and the functional properties of different classes of materials.

More information on the institutions and research group is available in the website:

Université de Pau et des Pays de l'Adour (UPPA), Anglet, France

<https://www.univ-pau.fr/fr/index.html>

Institute of Analytical Sciences and Physico-Chemistry for Environment and Materials (IPREM)

<https://iprem.univ-pau.fr/fr/index.html>

MANTA Chair

<https://iprem.univ-pau.fr/fr/collaborations/chaieres/manta/presentation.html>

Requirements:

- PhD degree in biotechnology, biochemistry, chemistry or similar disciplines.
- Large part of the applicant PhD project and/or postdoc should have been focused on the *green* extraction of natural active molecules and biomacromolecules.
- Extensive experience in the biochemistry and purification techniques of molecules.
- A knowledge of microalgae biochemistry will be a plus.
- The applicant must have a good level in spoken and written English.

Importance will also be placed on personal skills. In this case, we place particular weight on the ability to work as part of a multi-disciplinary team and a positive attitude towards mobility. The applicant will be responsible for a part of a larger project, and the ability to work independently and to take responsibility will be required.

Location:

This position will be based in UPPA, Anglet with short trips to the other locations of the project (particularly UPPA, Pau, France).

Application:

A person with a PhD obtained not more than three/four years before the end of the application period is particularly eligible for the position. The application should include:

- CV,
- Copy of PhD thesis diploma,
- Motivation letter (one, or maximum two pages)
- Contact details of two references

The application must be written in English.

Send the required documents to:

Susana Fernandes: susana.fernandes@univ-pau.fr

Amandine Adrien: amandine.adrien@univ-pau.fr

The application will be evaluated based on the following criteria:

Appropriate education and work/research experience in related fields. Candidate motivation, knowledge, scientific maturity and curiosity. Emphasis will also be placed on personal skills.

Selection process:

1. Evaluation of the candidates' application.
2. If selected, the candidate will have 15 min to present her/his CV and project. The presentation will be followed by questions/discussion.

Gross Salary: 2 800 € per month (according to UPPA index before taxes)

Starting date: June 2024 or as otherwise agreed.

Type of position: Full-time temporary position for 1 year.

Please submit your application by 18th April 2024