**Postdoctoral position: 3D printing for nerve regeneration**

General field: Biomedical Engineering

The environment:

The work will be realized in the BioMMAT group which is part of the Polymers, Biopolymers and Surfaces (PBS, UMR 6270) lab, a CNRS/INSA/University of Rouen Normandie research unit in France. The research will take place mainly in Evreux but with frequent meetings and experiments in Rouen (CHU or Mont-Saint-Aignan). It will focus on the biomedical applications of polymers, and will be centered around the use of bioinspired heterogeneous macromolecular scaffolds for tissue regeneration. More information: https://www.pbs.cnrs.fr/en/home/

The project:

Our aim is to develop artificial nerve conduits made of silk using additive manufacturing. To this aim we are currently working on various bioinks by mixing silk with other polymers, natural or not. We are also adding various functionalities (conductive material, releasable growth factor, …). Additive manufacturing will be realized with multiple heads as well as a mixture of printing and micro electrowriting. The post-doctoral mission will be to consolidate and move forward the development of these artificial nerves, participate in their structural construction and realize the first *in vitro* and *in vivo* testing. This Post-doc is part of an extensive effort already started in 2022 with a PhD project. Both the post-doc and the PhD student will have to work in a close partnership.

Specifics:

* This is a 1-year position
* Designing and conducting experiments (cell culture, 3D printing, implantation/biopsy retrieval in animals, mechanical testing, histology, immunolabelling, imaging, etc.)
* Participating in laboratory functioning
* Work with and supervise undergraduate and graduate students
* Writing articles, reports, protocols
* Communicating data internally and in scientific meetings

Requirements:

* A Ph.D. in the field of biomedical engineering
* Relevant tissue-engineering expertise including cell culture, 3D printing, and/or *in vivo* implantation; Knowledge in inflammation and/or inflammatory response to biomaterials is appreciated
* Excellent publication record / writing skills
* Independent thinking and proposition of relevant scientific options is highly valued
* Excellent ability to work in groups
* English will be the main language spoken, knowledge in French is welcomed

Notes:

* The position will be available end of August 2024
* Salary will be determined based on years of experience post-degree according to established institution guide lines

Contacts:

• Christophe Egles, christophe.egles@univ-rouen.fr

• Guy Ladam, guy.ladam@univ-rouen.fr