



## MYOLOGY RESEARCH CENTER

### **Post-doctoral research fellow in muscle cell biology.**

We are looking for a highly motivated and creative muscle cell biologist to join our lab. The post-doctoral fellowship position is funded by an EQUIPE FRM grant and is open with a flexible starting date until September 2022.

**Research topic:** The project aims at studying cell communication during human skeletal muscle regeneration in aging and pathological conditions. Muscle releases ‘myokines’, especially during the early stages of differentiation, which corresponds to the early stage of muscle regeneration. Tissue repair involves many cell types: inflammatory, interstitial, or even fibrotic in pathological situation. The complex orchestration of muscle regeneration necessitates a well-defined set of secreted molecules allowing cell-cell communication and therefore co-regulation. Muscle regeneration is less efficient in the elderly after falls or surgery, while we have previously shown that muscle stem cells have a good potential for proliferation and differentiation. In addition, it has been shown that the muscle secretome can be disturbed in several pathological situations. This project investigates the secretome of adult muscle cells across control, aged and pathological subjects and the impact of these secreted molecules on muscle regeneration. Secretome of muscle cells have already been performed and the **post-doctoral research fellow** will perform functional follow-up experiments to assess the impact of selected myokines on muscle regeneration. Using innovative approaches with co-culture systems and a xenograft model, the project will deliver novel mechanistic insights into how the kinetics of muscle regeneration is deregulated by secreted molecules during aging and in pathologies, and how these can be proposed as therapeutic targets to promote muscle health.

**Location:** Our [lab](#) is located at the [Myology Research Center](#) within the [Institute of Myology](#) in Paris. Our Lab’s main interests are at the crossroad between fundamental muscle cell biology, muscle aging and therapeutic strategies for muscle disease. The Center and the closely situated Sorbonne University and Pitie Salpetriere Hospital offer a dynamic environment with state-of-the art facilities and platforms.

**Expected profile:** The candidate should have a PhD in Life Science and an interest in studying muscle regeneration. Preference will be given to those with a PhD degree and a first post-doctoral experience. Prior experience in muscle physiology, molecular biology, cell communication and cell signaling is preferred; experiences in primary cell culture, and omics analysis are preferred but not mandatory.

Necessary skills include creativity, good oral and written communication skills in English. A good capacity to work in a collaborative environment is required. Please submit curriculum vitae, statement of research interest and names/address of two references to Capucine Trollet [capucine.trollet@upmc.fr](mailto:capucine.trollet@upmc.fr)