UNIL | Université de Lausanne
Aging and Muscle Metabolism Lab
Rue du Bugnon 7
CH-1005 Lausanne

We are hiring:

PhD position available in the Aging and Muscle Metabolism Lab, University of Lausanne, Switzerland

Mitochondrial fate in aging muscle and exercise

Introduction

The University of Lausanne (UNIL) hosts 14'100 students and nearly 3'800 collaborators, professors, and researchers. Ideally situated at the banks of Lake Geneva, near Lausanne's city center, its four campuses bring together more than 120 nationalities and are embedded in the larger, regional, vibrant life science research cluster.

Presentation

To complement the research activities, we are seeking to recruit a PhD student to work on projects relating to novel mitophagic pathways during aging, particularly looking into muscle wasting and adaptations to exercise.

Job information

Expected start date in position: as soon as possible
Contract length: 1 year, renewable for a maximum 5 years
Activity rate: Full time position (Minimum 50% for thesis)
Workplace : University of Lausanne, Department of Physiology

Your responsibilities

The main responsibility consists in conducting scientific research in the framework of the Amati lab, which is to investigate novel proteins and pathways that play a role in muscle metabolic dysfunctions that come with aging or with muscle wasting (myopathies). Mitochondria are key players in muscle metabolism and associated dysfunctions. Finely tuned dynamic modulations adapt the number of these organelles, as well as their function, location and architecture in response to external stimuli. We and others highlighted the role of mitochondria turn-over to maintain their efficiency in skeletal muscle. Autophagy-mediated degradation (referred as mitophagy) appears crucial to face muscle stimulation, stress and aging processes. The proposed project will build on findings that we have made on specific proteins and pathways that could play a role not only in aging, but also in muscular diseases such as myopathies and muscular dystrophies. The project will start on one targeted protein identified as a potentially novel mitophagic player. It will entail state of the art methodology based on multidisciplinary approaches, including clinical research, molecular biology, cellular biology and *in vivo* models. This project will be part of the larger mission to identify new molecular actors and pathways involved in mitochondria structuration and mitophagy. Developing zebrafish model and human primary muscle cells, we combine innovative tools to explore the functions of our hit candidates.

Of note, we are also open to new research ideas that collaborators wish to bring into the lab – with regard to both the experimental and the clinical side of the lab's activities.
Funding for the positions is available, although application to personal, international fellowship programs will be encouraged.

Your qualifications

The ideal candidate should be a highly motivated scientist and critical thinker with a Master degree in biology or related discipline. Good team player with a solid theoretical and practical knowledge of molecular biology, cell biology and physiology. A basic knowledge of genetic model, particularly zebrafish, will be an advantage. Excellent spoken and written English is an indispensable requirement. Willingness and interest in developing a PhD thesis in the broader fields of translational research/molecular biology is a necessity.

Your benefits

The Aging and Muscle Metabolism lab is hosted at the Department of Physiology at the University of Lausanne, a well-equipped and well-funded institute (https://www.unil.ch/physiologie/home.html). Our group benefits from a dynamic environment and strong collaborations embedded in the broader Lausanne research environment that includes two universities (UNIL, EPFL), high end institutional facilities (cellular imaging, proteomics, electron microscopy, etc) and multiple biotech companies. We offer a nice working place in a multicultural, diversified and dynamic academic environment.
The PhD student will be enrolled in the Faculty of Biology and Medicine's doctoral school (https://www.unil.ch/ecoledoctoralefbm/en/home.html).

For further information, please contact
Prof. Francesca Amati
francesca.amati@unil.ch
Lab website https://www.unil.ch/physiologie/home/menuinst/groupes-de-recherche/francesca-amati-1.html

Your application

To apply, please send a single PDF file including a motivation letter describing why you are interested in joining our group, a CV including scientific publications if applicable, your Bachelors/Masters grades, and contact details for 2 or more referees to francesca.amati@unil.ch. Please also state clearly where you have seen this call.

Deadline for application: May 15, 2017