

Job Description

The Faculty of Medicine at the University of Geneva benefits from a rich multicultural dynamic, to which it contributes through its influence in the context of its core mandates: teaching, research, and its partnership with the Geneva University Hospitals (HUG).

Within the Department of Cell Physiology and Metabolism at the Faculty of Medicine, University of Geneva, Switzerland (Centre Médical Universitaire), Prof. Anne-Claude Gavin's group studies the molecular mechanisms involved in the regulation of lipid metabolism and transport, and their role in human pathologies such as Alzheimer's disease. The group is a pioneer in innovative methods integrating biochemistry, mass spectrometry, microfluidics and bioinformatics. It relies on a network of local and international collaborations, including computational biology groups and clinicians.

To support the group working on the Swiss National Foundation (SNSF) funded project "*A new molecular mechanism of APOE lipidation: impact of APOE polymorphism and metabolic stressors*", we are opening a position for a:

PhD Assistant (75%) – Fixed-Term Contract

The successful candidate will join the collaborative research project, "*A new molecular mechanism of APOE lipidation: impact of APOE polymorphism and metabolic stressors*". The aims are to characterize the molecular mechanisms ensuring APOE lipidation by astrocytes. In particular, we will study how APOE-mediated lipid fluxes, which link astrocytes and neurons are affected by factors associated with the pathophysiology of Alzheimer's, such as APOE polymorphism, the development of dysfunctional reactive astrocytes or the accumulation of tau aggregates.

The selected candidate will use molecular biology, biochemical approaches and cellular models, including human stem cell-derived astrocytes and neurons, and develop new ones to study APOE lipidation and its transport function. They will also integrate methods developed by Dr Aurélien Lathuilière's group, Département de réadaptation et gériatrie de l'Université de Genève, to validate the new mechanisms in human CSF.

The candidate will enroll in the Faculty of Medicine and the Geneva's Life Sciences PhD School of the University of Geneva. They will write a doctoral thesis under the supervision of Prof. Anne-Claude Gavin and Dr. Aurélien Lathuilière.

Main responsibilities include:

- Designing, conducting and interpreting *in vitro* experiments, biochemical and cell culture studies.
- Collaborating within a multidisciplinary team of biologists, biochemists, and medical researchers.
- Data analysis, scientific publications, and presenting findings at group meeting, department seminars and conferences.

Required Qualifications and Skills:

- Master's degree in biology, biochemistry, medicine or a related field.
- Experience in biochemical methods, cell culture, ideally with stem cell-derived models.

- Experience or knowledge in neurodegenerative disease research and/or lipid biochemistry is an asset.
- Proficiency in English (C1 level).

We are looking for a highly motivated and diligent individual with a strong interest in using and developing new biochemical and cell biology methods. The position requires exceptional motivation and commitment to conduct fundamental research in the field of lipid biology, the ability to work independently as well as in a multidisciplinary team, and excellent technical, organizational, and management skills. Problem-solving mindset, excellent communication skills and fluency in English are important. The selected candidate will be based at the University Medical Center, Faculty of Medicine.

Start Date:

As soon as possible, ideally in the fall 2025.

Contact:

For further information, please contact Prof. Anne-Claude Gavin (anne-claude.gavin@unige.ch).

To apply, please send a CV (including names and addresses of referees) and covering letter, by email to anne-claude.gavin@unige.ch.

Additional Information:

FNS-funded project, 12-months contract, renewable.