

SAGAG Postdoctoral position

Informations générales

Intitulé de l'offre: Post-doctoral researcher to study the structure-function relationships of proteins involved in signaling between neurons and glial cells during neuronal remodeling. M/F

Référence :

Lieu de travail : GRENOBLE

Date de publication :

Type de contrat : Fixed term contract

Section CN : Structural and molecular biology

Durée du contrat : 24 months

Date d'embauche prévue : 1st June 2022

Quotité de travail : Full time

Rémunération :

Niveau d'études souhaité : PhD

Expérience souhaitée : 1- 3 years

Missions:

During the development of the nervous system, neurons undergo a remodeling process that is necessary for their normal function and that depends on interactions between glial cells and neurons. The recently discovered "orion" gene encodes a protein involved in this process, promoting glial cell infiltration and phagocytosis of axon bundles during neuronal remodeling. The project aims at expressing and purifying this new protein in order to resolve its molecular structure and to study its interactions with its cellular partners including glycosaminoglycans and its signaling receptor. The candidate will join a team (the SAGAG group at IBS) of about ten people, at the forefront of research on glycosaminoglycan structures and molecular interactions, with a first class technological environment. In this context, his/her role, in close interaction with the members of the laboratory, will be to study the functional and structural aspects of the recently discovered Orion protein.

Activités:

In that context, the post holder will:

- Express and purify recombinant proteins using different expression systems.
- Implement real-time biochemical assays to perform molecular interaction experiments.
- Develop mutagenesis and structural biology approaches to identify the active sites of the protein and characterize the complexes between the protein and its partners.
- Develop functional tests in cellulo to analyze biological activities
- Present results at national and international meetings and through publications

Compétences:

The candidate, holder of a recently obtained thesis, should have:

- Proven experience in protein expression, purification and characterization
- Experience in structural biology
- Prior experience in glycobiology would be a plus.
- Good written and oral communication skills in English; knowledge of French is not required.

- Ability to work independently, but in close collaboration with collaborators and other laboratory members.
- The successful applicant will have ample opportunity to develop additional skills in post

Contexte de travail:

The candidate will join a research group of about 10 members, within the Institute for Structural Biology in Grenoble. This team is internationally recognized for its work on Protein-glycosaminoglycan interactions and has access to a first-rate instrumental park for the realization of this project.

The IBS is a joint research unit under the supervision of the University of Grenoble-Alpes, the CNRS and the CEA. More than 300 people work at IBS, including 180 permanent employees, many students and post-doctoral fellows from different countries.

The IBS has efficient and internationally competitive facilities in the fields of molecular and cellular biology, biochemistry, biophysics and structural biology. The Institute is a founding member of the Partnership for Structural Biology (PSB) with prestigious pan-European institutes: the European Synchrotron Radiation Facility (ESRF), the European Neutron Scattering Facility (ILL) and the EMBL station in Grenoble, all located nearby and offering a strong international environment.