



Inserm



COLLÈGE
DE FRANCE
—1530—



Center for interdisciplinary research in Biology, Collège de France, Paris.
Team Physiology and physiopathology of the gliovascular unit.
<https://www.college-de-france.fr/site/en-cirb/cohen-salmon.htm>

3D Imaging and analysis of the brain gliovascular interface in health and disease

The *Physiology and physiopathology of the gliovascular unit* team is looking for a **junior post doctorant or an engineer**, to describe the morphology of perivascular astrocyte processes in the brain, in normal, pathological contexts and during postnatal development.

Astrocytes are brain glial cells that have a predominant influence on the cerebrovascular system. The astroglial regulation of the cerebrovascular system operates at the level of the gliovascular unit, a specialized interface comprising astrocyte perivascular processes that fully sheath the brain vessels. To date, the exact morphology of this interface is unknown. Our objective is to generate the first detailed map of gliovascular interactions in the mouse cerebral cortex.

The project is based on an already set confocal fluorescent microscopy procedure on fixed cleared mouse brain samples. The candidate will have to develop a multiparametric computational approach to describe the organization of the perivascular astrocyte processes. The candidate must have a strong background in confocal microscopy and image analysis and be independent on the development of new quantitative analysis protocols.

The laboratory is located within the **interdisciplinary biology research center** at the Collège de France in central Paris. The engineer/post-doc will have full access to all cutting-edge confocal and super-resolution microscopy and analysis stations of the CIRB Orion facility (<http://orion-cirb.fr/>).

The appointment is for 2.5 years. The position is available starting from October 2023.

Candidates should send their CV, motivation letter, list of publications, and 2 letters of reference to martine.cohen-salmon@college-de-france.fr.