

**L'Institut du Cerveau (ICM), recrute**  
**Postdoctoral fellow in preclinical research in Alzheimer's disease**  
**Poste à pourvoir à compter du 15 janvier 2023**  
**CDD 2 ans**  
**A Paris 13<sup>ème</sup>**

The project will be carried out at the ICM (Brain Institute, Paris <https://institutducerveau-icm.org/en/>). The research in this center is devoted to the study and treatment of neurological disorders, with a strategy, pluridisciplinary in nature, integrating cellular biology, neurophysiology, neuropathology, behavioral analysis, neuroimaging and molecular-genetic approaches. The institute is equipped with cutting edge technology. The candidate will thus have full access to imaging facility, histology platforms and to the experimental animal facility (brain surgery, behavioral-cognitive evaluation).

## POSTE

The research project is related to the study in mouse models of Alzheimer's disease (AD) of innovative strategies based on "augmented" anti-tau immunotherapies.

The research program is a proof of concept and a validation pipeline to test the effect of anti-tau nanobodies on morphological and behavioral-cognitive aspects, and to define the optimal mode of administration before clinical testing. It is a follow-up of previous research efforts within the consortium who already engineered anti-tau nanobodies with exquisite properties.

We aim to compare two strategies to potentiate anti-tau nanobodies efficacy when administered to transgenic mice mimicking AD-like human tauopathies and developing clinical symptoms.

The postdoctoral fellow will oversee and perform in vivo (brain stereotaxic surgery, behavioral analysis) and neuropathological studies. This is a 24-months position. Starting date is beginning of 2023.

### **MISSIONS PRINCIPALES**

- Use of a transgenic mouse model of human brain tauopathies
- Perform in vivo (surgery, immunotherapy, behavior) and postmortem experiments
- Analysis (including morphological quantifications) of results
- Communication – valorization of results

### **CONDITIONS DE COLLABORATION (facultatif)**

- *Postdoctoral position*
- *Budget (supplies, equipment, platforms etc.) secured*
- *Access granted to the different ICM core facilities (animal facility, histology & imaging platforms, vectorology etc.)*

## PROFIL

### **SAVOIR-FAIRE**

- *Mice colony management*
- *In vivo experimentation*
- *AAV design / manipulation for in vivo applications*
- *Stereotaxic brain surgery*
- *Histology and neuropathology*
- *Microscopic image analysis*
- *Preclinical behavioral-cognitive assessment (rodents)*

### **SAVOIR**

- *Neurobiology, neuroanatomy, neuropathology*
- *English proficiency (French : optional)*
- *Usual softwares (Excel, Photoshop)*
- *Image analysis tools (eg Fiji, QUPATH, ICY)*

- *Good practice and knowledge of Statistics (including use of dedicated softwares: e.g. GraphPad and/or Statistica and/or SPSS)*

**SAVOIR-ETRE**

- *Rigor in experimentation and data analysis*
- *Capacity for teamwork and reporting*
- *Highly motivated, enthusiastic, and autonomous fellow with strong organization skills*

**CV à envoyer à : [recrutement@icm-institute.org](mailto:recrutement@icm-institute.org) en indiquant Poste « Postdoctoral fellow in preclinical research in Alzheimer's disease »**