

WORKING ENVIRONMENT AND CONTEXT

Notre établissement fait partie de l'Université PSL. Située au cœur de Paris, celle-ci fait dialoguer tous les domaines du savoir, de l'innovation et de la création. Classée parmi les 50 premières universités mondiales, elle forme au plus près de la recherche des chercheurs, artistes, ingénieurs, entrepreneurs ou dirigeants conscients de leur responsabilité sociale, individuelle et collective.

HOSTING STRUCTURE

Faithful to the legacy of its founder, the Institut Curie is deeply committed to promoting equal opportunities, diversity, and inclusion. Convinced that diversity of backgrounds and experiences contributes to collective performance, we strive to provide everyone with a respectful and equitable working environment and encourage all candidates to apply for our job opportunities.

MISSIONS

MAIN TASKS

Laboratory

The Baffet lab is located at Institut Curie, in the department of cell biology (UMR144).

<http://institut-curie.org/team/baffet>.

The team investigates the mechanisms of mammalian neocortex development, with a strong focus on neural stem cells. We aim to understand how these cells shape the cell type diversity of the brain, using live imaging-based approaches.

Description of the PhD thesis project

The remarkable expansion of the human neocortex during recent primate evolution is thought to result from increased production of neuronal and glial cells by neural stem cells, known as radial glial (RG) cells. However, the cell fate decisions that generate this diversity, and how they vary across developmental stages and cortical regions, remain poorly understood. This PhD project aims to uncover the lineage relationships and fate decisions of human neural stem cells across cortical regions using a combination of human fetal tissue and next-generation regionalized cortical organoids developed within an ERC Synergy project. Building on a live/fixed correlative imaging pipeline established in the host laboratory, the student will directly observe RG cell divisions and assign the identities of their progeny through immunostaining. By quantifying proliferative, neurogenic, and gliogenic division modes across space and time, they will generate a comprehensive map of neural stem cell fate decisions during human cortical development and determine how these programs vary between cortical areas. To investigate the molecular mechanisms underlying these fate choices, they will combine single-cell transcriptomics with lineage analysis. Using Live-seq, a minimally invasive approach that enables transcriptome profiling of living cells, they will sample individual RG cells in 2D prior to division and subsequently determine the identity of their daughter cells through live/fixed correlative imaging. This strategy will establish direct links between the molecular state of neural stem cells and their developmental output, allowing us to identify transcriptional signatures associated with specific fate decisions and test whether RG cells are molecularly precommitted to fate decisions before mitosis. Together, this work will provide an unprecedented spatiotemporal map of human neural stem cell lineages, reveal the molecular determinants of fate specification, and establish new principles governing regional diversification of the developing human cortex.

APPLICANT PROFILE

KNOWLEDGE AND QUALIFICATIONS EXPECTED

Type of contract: *doctoral contract*

Starting date: *end of 2026*

Duration: *3 years*

Working time: *full time*

Remuneration: *according to the current grids*

Benefits: *Collective catering, reimbursement of transportation fees up to 70%, supplementary health insurance*

Location of the position: *Paris*

Contact

Please send your CV, letter of motivation

Publication date: 14/06/2026

Deadline for application: once filled

***Institut Curie is an inclusive, equal opportunity employer
and is dedicated to the highest standards of research integrity.***

https://euraxess.ec.europa.eu/sites/default/files/brochures/eur_21620_en-fr.pdf

DIPLÔME ET EXPÉRIENCE PROFESSIONNELLE

Bac+5

NON DISCRIMINATION, OUVERTURE ET TRANSPARENCE

Notre établissement, comme l'ensemble de l'Université PSL, s'engage à soutenir et promouvoir l'égalité, la diversité et l'inclusion au sein de ses communautés. Nous encourageons les candidatures issues de profils variés, que nous veillerons à sélectionner via un processus de recrutement ouvert et transparent.

CONTACT

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OTHER INFORMATION

Wage : **2400.0 € (Euros) par mois**
Type de contrat / de poste : **CDD**
Durée du contrat : **3 an(s)**

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