



## Postdoctoral position : Pediatric glioma biology and early oncogenesis



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Lab. Genomics & Oncogenesis of  
Pediatric Brain Tumors  
Gustave Roussy / INSERM  
Villejuif (Paris Area), France



We are seeking a highly motivated and talented **POSTDOCTORAL RESEARCHER** to join the team of Dr David Castel in Gustave Roussy Cancer Center. The successful candidate will contribute to cutting-edge research aimed at **understanding developmental programs that are hijacked during early pediatric glioma oncogenesis**, leading to a disruption of cellular fate, and **to identify window(s) for early therapeutic intervention**.

The project integrates in the **PEPR CELL-ID “Cellular identities and destinies”** exploratory research program, a highly multidisciplinary research initiative at the intersection of:

- **developmental biology**, aimed at understanding the normal cellular trajectories of the brain,
- **cutting-edge single-cell multi-omics approaches** (sequencing and imaging based) to map cellular states and their transitions,
- **pediatric neuro-oncology**, to decipher the early mechanisms of tumor transformation.

We will leverage **innovative models to investigate the early stages of tumor transformation in the context of brain development**. Specifically, we will use **syngeneic mouse models** generated by *in utero* electroporation of driver mutations, and subsequently validate our findings in human hindbrain organoids in collaboration with the Lab of Dr Stéphane Nedelec. These modelling approaches will be combined with **advanced phenotyping and single-cell genomic analyses, including multi-omics and transcriptomics**, as well as functional interrogation through **CRISPR/Cas9 screening strategies *in vitro* and *in vivo***.

### Hosting Lab

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Our research focuses on aggressive pediatric brain tumors and notably Diffuse Midline Gliomas H3 K27-altered (DMG). In order to improve prognosis for these tumours, we aim at understanding their specific oncogenesis, cellular and molecular characteristics in order to identify targetable vulnerabilities. The lab **combines multi-omics analyses of patient cohorts with pertinent modelling of the disease both *in vitro* and *in vivo* derived cells, organoids and mouse models** (e.g. PMID: 38066305, PMID: 37702430, PMID: 32193787, PMID: 31481512).

The position will be based within the **Research Center of Gustave Roussy**, the 1<sup>st</sup> European Cancer Center, located in Villejuif-Paris Area (Direct Metro Line 14 to city center). The appointed candidate will join a dynamic scientific team working closely with the pediatric oncology department.

The candidate will also benefit from a leading-edge collaborative ecosystem involving the national **CELL-ID consortium**, the **Paris Kids Cancer - Center of Excellence in pediatric oncology**, and will work closely with both scientific and clinical teams (pediatric oncology, neurosurgery, neuropathology).

## Expected profile

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- **Strong interest in cancer and/or developmental biology.**
- **Demonstrated experience with animal experimentation & surgery** (with corresponding qualifications) is a prerequisite.
- Previous experience in **(epi)-genomics (single-cell RNAseq & other genomic approaches)** will be a strong asset.
- Self-motivation and ability to work both autonomously or in collaboration, excellent team spirit
- Good communication skills, fluency in oral and written English.
- PhD degree in related fields and have at least one publication as first author.

## Application

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The position is open as of April 2026 (open until filled) and **fully-funded for 3 years**.

Interested candidates should send a **CV, a cover letter detailing their research interest**, and **contact information for two to three references** to : [david.castel@gustaveroussy.fr](mailto:david.castel@gustaveroussy.fr).