**Project title: *Pathways and trajectories controlling cancer cell state and response to treatment***

*Arial 12* – *Please provide a short description of the project (theme, summary and goals of the project)*

The team of Dr O. Delattre and I Janoueix at Institut Curie in Paris is recruiting **2 post-doctoral researchers for 3 years** to participate in an ERC Synergy program entitled “Kill or Differentiate” focusing on neural crest tumors and particularly on neuroblastoma. This team recently demonstrated that neuroblastoma cells may adopt two different states, either NORadrenergic or MESenchymal, the latter being more resistant to standard chemotherapy. In the frame of this project, the post-doc candidates will explore the internal states and signals in neuroblastoma tumors, using single cell transcriptomics and spatial transcriptomic approaches. Comparison with normal development signals and trajectories (defined by the other teams of the ERC synergy program) will allow the identification of signals/pathways that may convert tumors to therapy-sensitive state. Pharmacological and/or genetic manipulations of these pathways will be performed in vitro and further pre-clinical validation will be done in vivo using various models to then propose innovative therapeutic strategies*.*

**Key words:**

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| --- | --- |
| * *Neuroblastoma*
 | * Transcriptomics
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| * Development and cancer
 | * Single cell analysis
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**Profile and skills of the candidate:**

We are looking for highly motivated and innovative post-doc candidates with a PhD degree in life science, preferentially in a relevant discipline (cellular and molecular biology, cancer biology …), or in bio-informatics.

Affinity with multi-omics, cell signaling and single cell analysis is highly appreciated. In addition, we expect the Postdoctoral Researcher to have excellent communication skills, to be a good team player and to have a strong affinity with working in an interdisciplinary and international research environment.

**Lab:** *Diversity and Plasticity of Childhood Tumors – Olivier Delattre*

**Location:** *Paris- France*

**Contact:** *Olivier.Delattre@curie.fr* *and* *Isabelle.Janoueix@curie.fr**.*

**Dead line to submit / Starting dates:** *Applicants should send their CV along with a cover letter before May 1st 2020*