

# Open Position - Post Doc



## Project title: *Microsatellites: Polymorphisms and Hubs for Activation of transcription in Ewing sarcoma*

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

The team of Dr O. Delattre at Institut Curie in Paris is recruiting **1 post-doctoral researchers for 3 years** to participate in an research program entitled “ $\mu$ PHASE” focusing on the mechanism of action of the EWSR1-FLI1 gene fusion in Ewing sarcomas.

Ewing sarcoma is a primary bone tumor that primarily occurs in the second decade of life. A hallmark feature of the tumor is a fusion that occurs between EWSR1 and a member of the ETS transcription factor family. In approximately 85% of ES cases, the fusion is EWSR1-FLI1. EWSR1-FLI1 is an aberrant transcription factor that contains the DNA binding domain of FLI1 (or other ETS family transcription factor) in its C-terminus and the low complexity domain (LCD) or prion-like domain of EWSR1 in its N-terminus. The LCD domain of EWSR1 is able of inducing a concentration dependent phase separation– of the liquid-liquid type -, between a mixed, homogeneous phase, and a "demixed", droplet-like state. This project aims at detailed analysis of EWSR1-FLI mechanisms of action and should lead to a better understanding of Ewing Sarcoma development and may open routes for new therapeutic options.

This project is conducted in collaboration with physicists at Institut Curie (M Coppey's team).

### Key words:

- *Ewing Sarcoma*
- Phase transition
- Gene Fusion

### 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 genomics, cell signaling and physics 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*

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