

# Postdoctoral Position in Homologous Recombination (M/F)



## The hosting structure

### Institut Curie Research Center

Institut Curie is a major player in the research and fight against cancer. It consists of a Hospital group and a Research Center of more than 1000 employees with a strong international representativeness.

The objective of the Research Center is to develop basic research and to use the knowledge produced to improve the diagnosis, prognosis, and therapeutics of cancers as part of the continuum between basic research and innovation serving the patient.

## Context

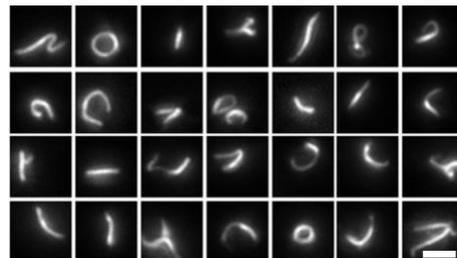
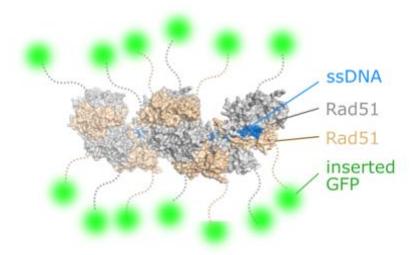
### Laboratory

The successful candidate (H/F) will join Angela Taddei's team and work in close collaboration with Valérie Borde's team, both belonging to the Institut Curie Research Center and affiliated to the *Nuclear Dynamics* and *Dynamics of Genetic Information* departments respectively.

The Institut Curie is a highly vibrant research center, offering an international and multidisciplinary research environment in central Paris, and offers access to state-of-the-art facilities.

The *Compartmentalization and Dynamics of Nuclear Functions* team led by Angela Taddei aims to determine the physical and molecular determinants of nuclear organization and its influence on genome functions, including homologous recombination. To this end, they combine advanced in vivo microscopy approaches (quantitative microscopy including super-resolution) with genetic and molecular biology approaches (<https://institut-curie.org/equipe/taddei>).

The *Chromosome Dynamics and Recombination* team, headed by Valérie Borde, studies the mechanisms involved in the repair of double-strand breaks during meiosis and somatic growth, combining cutting-edge genomics, proteomics and molecular biology technologies (<https://institut-curie.org/team/borde>).



### Recent publications:

Liu S, Mine-Hattab J, Villemeur M, Guerois R, Dahl Pinholt H, Mirny LA & **Taddei A.** (2023) "In vivo tracking of functionally tagged Rad51 unveils a robust strategy of homology search." *NSMB*, doi:10.1038/s41594-023-01065-w.

Miné-Hattab J. #, Heltberg M., Villemeur M., Guedj C., Mora T., Walczak A.M., Dahan M., & **A. Taddei #.** (2021) « Single Molecule Microscopy Reveals Key Physical Features of Repair Foci in Living Cells ». *ELife* 10: e60577. <https://doi.org/10.7554/eLife.60577>.

Nicolas, Y., Bret, H., Cannavo, E., Acharya, A., Cejka, P.#, **Borde, V.#** and Guérois, R.# (2024) "Molecular insights into the activation of Mre11-Rad50 endonuclease activity by Sae2/CtIP." *Molecular Cell* 84, 2223-2237.

Pyatnitskaya, A., Andreani, J., Guérois, R., De Muyt, A. and **Borde, V.** (2022) The Zip4 protein directly couples meiotic crossover formation to synaptonemal complex assembly. *Genes and Development* 36, 53-69.

## The project

*The project will focus on the study of the structure and dynamics of nucleoproteic filaments formed by the Rad51 and Dmc1 recombinases during homology search in meiosis. The post-doc will use innovative microscopy approaches (Liu et al, NSMB 2023) in combination with genetics and molecular approaches.*

## Candidate Profile

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### Training and Skills required

- Training: We invite applications from candidates with a strong interest in DNA repair and chromosome biology, ideally (but not mandatory) with a mixed background in molecular biology and quantitative microscopy.
- Scientific skills: Candidates holding, or shortly expecting to be awarded, a PhD degree in related fields are encouraged to apply.
- Applicants should have at least one publication as first author.
- Language skills: Candidates should be fluent in English, which is the language used in the lab.

### Abilities

- Highly self-motivated
- Rigorous
- Creativity, ability to work independently and to collaborate with others

*All our opportunities are open to people with disabilities*

## Contract information

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**Type of contract:** *Fixed-term contract.*

**Starting date:** *position available immediately*

**Duration:** *24 months*

**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*

**Reference:** 2

## Contact

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Please send your CV, letter of motivation and 2 references to [job-ref-ib8q3lnxn@emploi.beetween.com](mailto:job-ref-ib8q3lnxn@emploi.beetween.com)

Publication date: 07/03/2025

Deadline for application: until filled

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

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