

# **Postdoctoral Fellowships**

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#### **CALL FOR APPLICATIONS 2025 - FELLOWS**

**Supervisor** Maria Teresa Teixeira

Supervisor page <a href="https://www.researchgate.net/profile/Maria-Teresa-Teixeira-2">https://www.researchgate.net/profile/Maria-Teresa-Teixeira-2</a>

Host Institution Centre National de la Recherche Scientifique (CNRS)

https://www.cnrs.fr/en

Research Lab Laboratory of Molecular and Cellular Biology of Eukaryotes

http://lbmce.ibpc.fr/

Research Team Telomere biology

http://lbmce.ibpc.fr/telomere-biology/

## **Project Title**

Telomeres, replicative senescence and genome instability

### **Project Description**

Without telomerase, telomeres shorten naturally during DNA replication, leading to replicative senescence, a major tumor suppression mechanism linked to genomic instability in humans. This project aims to understand the mechanistic link between these phenomena using a novel system in Saccharomyces cerevisiae to manipulate and track telomere dynamics at single-nucleotide resolution. The multi-disciplinary approach involves advanced techniques like CRISPR/Cas9, Nanopore sequencing, microfluidics

# **Keywords**

genome instability, dna replication, dna repair, telomeres and telomerase

#### **Description of the Host Research Lab**

Research carried out at the Laboratory of Molecular and Cellular Biology aims at understanding the fundamental molecular mechanisms of eukaryotic cells using multidisciplinary approaches combining genetics, genomics, molecular and cellular biology, biochemistry, proteomics and biophysics.