September 2020

French National Institute of Cancer funded
Postdoctoral Position in Telomere erosion and Ty1 retrotransposition

We are looking for a driven Postdoctoral Research Scientist with knowledge in the fields of transposable elements, telomere biology and/or genome instability to join the group of Dr Pascale Lesage and Emmanuelle Fabre « Genome Biology: From Mobile DNA to Chromosome Dynamics (https://gencelldis.fr/fabre-lesage-team/ ». Current work of the lab focuses on the mechanisms that govern genome organization and integrity.

The postdoctoral fellow will contribute in a joint project between the teams of Dr Pascale Lesage and Emmanuelle Fabre (IRSL, Paris, France) and Dr Teresa Teixeira (IBPC, Paris, France) on **the impact of telomere erosion associated to aging on chromatin structure, chromosome mobility and Ty1 retrotransposon dynamics in budding yeast**. The project will using a combination of yeast genetics, molecular biology and advanced live microscopy techniques. The postdoctoral fellow will be located in IRSL (Hôpital Saint Louis) and will also interact strongly with the lab of Teresa Teixeira.

The position is funded for one year, renewable twice.

Qualifications
You will have a PhD in biological or biochemical sciences and demonstrable experience in molecular and cell biology techniques. You will need strong organizational, team working and communication skills and a proven track record in taking projects from conception to completion. Candidates with previous experience in yeast biology, experimental skills in molecular biology and knowledge in bio-informatic analyses of high throughput sequencing data will be appreciated.

Application details
Applications including a CV, names and contact details of three referees, and a cover letter summarizing current and future research interests should be submitted by e-mail to pascale.lesage@inserm.fr, emmanuelle-g.fabre@inserm.fr and teresa.teixeira@ibpc.fr. Please indicate: « Postdoc application » in the subject line.

Starting date: First semester of 2021

Recent publications linked to the project from the host labs:

- Asif-Laidin A *et al.* (2020). A small targeting domain in Ty1 integrase is sufficient to direct retrotransposon integration upstream of tRNA genes***. EMBO J***. Jul 17:e104337. doi:10.15252/embj.2019104337.
- E. Henninger and M. T. Teixeira (2020). Telomere-driven mutational processes in yeast. ***Curr Opin Genet Dev*** 60: 99-106.
- Ben Meriem, Z ., *et al.* (2019). Hyperosmotic Stress Response Memory is Modulated by Gene Positioning in Yeast, ***Cells*** 8(6), 582
- Zimmer, C and Fabre, E (2018). Chromatin mobility upon DNA damage: state of the art and remaining questions. ***Current Genetics*** *18,* 1200
- H. Coutelier, et al. (2018). Adaptation to DNA damage checkpoint in senescent telomerase-negative cells promotes genome instability. ***Genes Dev*** 32(23-24): 1499-1513.
- Herbert, S., *et al.* (2017). Global Stiffening of chromatin underlies enhanced chromatin mobility in yeast after DNA damage. ***EMBO. J*** 36 : 2595-260.
- Sultana T., Zamborlini A, Cristofari G and Lesage P (2017). Integration site selection by retroviruses and transposable elements in eukaryotes. ***Nature Reviews Genetics***. 18(5): p. 292-308.
- Bridier-Nahmias A, *et al.* (2015). Retrotransposons. An RNA polymerase III subunit determines sites of retrotransposon integration. ***Science*** May 1;348(6234):585-8. doi: 10.1126/science.1259114.