Postdoctoral position
to study polyploidization and outbreeding mechanisms in yeast

A postdoctoral position is available in the Biology of Genome team headed by Gilles Fischer at Sorbonne Université in Paris, France. The Fischer team is located in a highly multidisciplinary environment in the Laboratory of Computational and Quantitative Biology (LCQB) at the Institut de Biologie Paris Seine (IBPS).

The selected candidate will work on projects aimed at understanding the unexpectedly high levels of heterozygosity and polyploidy in *Saccharomyces cerevisiae*, as revealed by recent large population genomics data [DOI: 10.1002/yea.3533]. These include both experimental works aimed at determining how unprogrammed mating type switching, heterothallism, spore viability, cell–cell fusion and dioecy could play key and uncharted contributions to generate and maintain heterozygosity through polyploidization during the life cycle and bioinformatics analyses of genome sequences.

The position is funded for two years. The candidate is expected to have a PhD in biology and a solid background in genetics and molecular biology with at least basic skills in bioinformatics and statistics. A work experience with *S. cerevisiae* will be appreciated. The candidate must be proficient in English.

The application package (1 single PDF file) should include a motivation letter demonstrating the interest of the candidate for the position and the candidate's ability to perform this type of research, a CV and the contact information of two people who can provide letters of reference. The file should be sent to gilles.fischer@sorbonne-universite.fr

The starting date could be as early as January 2022. The position will remain open until a candidate is selected.

Recent publications of the team:

Droghetti R, Agier N, Gherardi M, Fischer G, Cosentino Lagomarsino M. An evolutionary model identifies the main selective pressures for the evolution of genome replication profiles. Elife 10:e63542. doi: 10.7554/eLife.63542 (2021)

Fischer G, Liti G, Llorente B. The budding yeast life cycle: more complex than we thought? Yeast. 38(1):5-11 (2021)

O'Donnell S, Fischer G. MUM&Co: accurate detection of all SV types through whole-genome alignment. Bioinformatics. 36(10):3242-3243, (2020)

Fleiss A, O'Donnell S, Fournier T, Lu W, Agier N, Delmas S, Schacherer J, Fischer G. Reshuffling yeast chromosomes with CRISPR/Cas9. PLOS Genet. Aug 29;15(8):e1008332 (2019).

N Agier, S Delmas, Q Zhang, A Fleiss, Y Jaszczyszyn, E van Dijk, C Thermes, M Weigt, M Cosentino-Lagomarsino and G Fischer. The evolution of the temporal program of genome replication. Nature Commun (2018) Jun 6;9(1):2199

Vakirlis N, Hebert AS, Opulente DA, Achaz G, Hittinger CT, Fischer G, Coon JJ, Lafontaine I. A molecular portrait of de novo genes in yeasts. Mol Biol Evol. (2018) Mar;35(3): 631-645