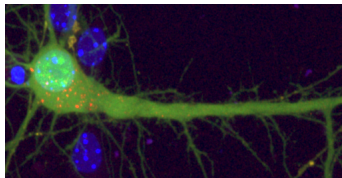


A 2-year Research Engineer position in interdisciplinary cell biology and biophysics is available to work at ENS, Paris, France.

Our lab is looking for a research engineer to **develop novel tools dedicated to the study of biomolecular condensates**, such as RNP granules and nuclear bodies, in physiological and pathological cellular contexts.

Our laboratory is a highly-collaborative environment with state-of-the-art facilities and expertise in biophysics, cell biology and chemical biology. We are also collaborating with several close research groups in biology, chemistry, and physics. The candidate will benefit from a multidisciplinary environment in the lab where biologists, chemists and biophysicists collaborate together. Located in the heart of Paris, our laboratories benefit from an exceptionally rich academic environment, also provided by the proximity of internationally recognized research institutes (ENS, Curie Institute, College de France...).

Profile: The applicant should hold a PhD in Cell Biology, Biochemistry or Biophysics and show strong interest for interdisciplinary and collaborative works.



Scientific Project: Membrane-less organelles are ubiquitous functional sub-units of cells that are involved in many vital functions such as RNA regulation, shaping the general gene expression output. Importantly, their dysfunction is linked to viral infection, cancer, and neurodegenerative diseases. For instance, the solidification of RNA-protein membrane-less organelles into toxic aggregates have been associated to pathological diseases such as amyotrophic lateral sclerosis (ALS). Beyond their molecular composition, these organelles are very complex regarding their biochemical and biophysical properties, which implies the need to develop novel tools for their study. By combining synthetic biology, biophysics and cell biology, our team is developing novel methodologies to form artificial membrane-less organelles, within living cells, with tunable biochemical and biophysical properties (see ^{1,2,3}). Our lab is now studying membrane-less organelles in human cells in collaboration with teams experts in cell biology, RNA biology, neurodegenerative diseases, and viral infections.

Expected start date: Dec-March 2023.

Applications (curriculum vitae, statement of research interests, and contact information of at least 2 references) should be addressed to: zoher.gueroui@ens.fr

References

1. RNA is a critical element for the sizing and the composition of phase-separated RNA-protein condensates. Garcia-Jove Navarro M, Kashida K, Chouaib R, Souquere S, Pierron G, Weil D, and Gueroui Z. *Nature Com.* 2019. <https://www.nature.com/articles/s41467-019-11241-6>.
2. RNA at the surface of phase-separated condensates impacts their size and number Cochard A., Garcia-Jove Navarro M., Kashida S., Kress M., Weil D., and Gueroui Z. *Biophysical Journal* 2022. <https://doi.org/10.1016/j.bpj.2022.03.032>
3. Condensate functionalization with motors directs their nucleation in space and allows manipulating RNA localization. Cochard A, Safieddine A, Combe P, Benassy M-N, Weil D, Gueroui Z. *BioRxiv* 2022. <https://www.biorxiv.org/content/10.1101/2022.07.10.499452v1>