Postdoctoral position

A 2-years post-doctoral position is available at the IUH Hôpital St Louis, Paris X, France in the team of C. Dargemont to study the **Plasticity of the nuclear pore complex.**

Nuclear Pore complexes (NPC) constitute a unique gate between the nucleus and the cytoplasm that regulates the transport of macromolecules between these cellular compartments. The NPC also emerged as a “hub” coordinating nuclear transport, gene expression, chromatin organization and genome integrity. However the limited number of NPC per cell imposes a certain "hierarchy" of these different functions in time and space. We propose to focus on the nuclear side of the NPC and precisely dissect how the “jeu de rôle” of post-translational modifications control the NPC during the cell cycle as well as its function in the gene expression program at a single cell level. This will be addressed in the model organism *S. cerevisiae* using a combination of approaches including genetics, molecular biology, biochemistry and live cell microscopy.

Team: The project will be performed in the team “Ubiquitin and Dynamics of molecular scaffolds” (INSERM U944/CNRS 7212) and “Space-time imaging of organelles and endomembranes dynamics” (UMR144 Institut Curie). Catherine Dargemont as a strong expertise in nucleocytoplasmic transport of both RNA and proteins, nuclear pore complex as well as in ubiquitin-like modifications. IUH are located in the center of Paris, in very pleasant and living urban environments, a few stops away from Paris historical center but also easily reached from many Paris suburban areas. The position is available from now.

Related recent publications from the team:

Babour, A., Shen, Q., …Dargemont, C. (2016) The chromatin remodeler ISW1 Is a quality Control Factor that surveys nuclear mRNP biogenesis. **Cell,** In press

Niño CA,...Dargemont C. Posttranslational marks control architectural and functional plasticity of the nuclear pore complex basket. (2016) **J. Cell Biol**. 212:167-180.

Guet D, .. Salamero J and **Dargemont C.** (2015) Combining Spinach-tagged RNA and gene localization to image gene expression in live yeast. **Nature Commun.** 6:8882, doi: 10.1038/ncomms9882.

Hayakawa, A., Babour, A., Sengmanivong, L. and **Dargemont, C.** (2012) Ubiquitylation of the nuclear pore complex controls nuclear migration during mitosis in S. cerevisiae. **J. Cell Biol**. 1:19-27.

Applications (CV, letter of motivation and a couple of references) should be sent to:

Catherine Dargemont (catherine.dargemont@inserm.fr)