



Post-doc or engineer position in *Saccharomyces cerevisiae* stress signaling

Laboratory of Molecular and Cellular Biology of Eukaryotes UMR8226 CNRS/UPMC
Institut de Biologie Physico-Chimique, Paris, France

Research Topic: Dynamic of redox signaling networks in response to environmental changes
Research Team: Carbon fixation, stress responses and redox control (Dr Stéphane Lemaire)

Project description

Living cells have evolved a complex network of signaling pathways and adaptive responses which enable them to survive and adapt to diverse environmental challenges. Our increasing understanding of the molecular mechanism of cell signaling has revealed that reactive oxygen species (ROS) and reactive nitrogen species (RNS) are signaling molecules that mainly act through redox post translational modifications such as nitrosylation and glutathionylation.

The aim of this project is to investigate, using an innovative proteomic approach, the *in vivo* dynamics of nitrosylation and glutathionylation. The method will allow quantitative and time-resolved detection of both modifications that will be analyzed simultaneously and specifically from each sample. This technology will be combined to bioinformatic modeling to unravel a basic framework of the redox network associated with the responses to diverse physiological conditions or with different genetic backgrounds in two model unicellular eukaryotes: the yeast *Saccharomyces cerevisiae* and the green alga *Chlamydomonas reinhardtii*.

Profile

We are seeking a candidate with expertise in *S. cerevisiae* cell cultures, biochemistry. Knowledge in metabolic labeling (SILAC), separative techniques coupled to mass spectrometry and expertise in the analysis of protein post-translational modifications or redox biology will be appreciated.

The applicant will be able to lead this project autonomously under the supervision of Dr. Christophe Marchand (project leader) and Stéphane Lemaire (group leader).

Additional information

Qualifications required: Master, Engineer diploma or PhD.
Contract duration: 12 months full-time job (ANR funding).
Salary: Depending on the profile and expertise of the applicant.
Starting date: 2016, January 1st.
Website: <http://www.lbmce.ibpc.fr>
Application: CV with cover letter sent to contacts

Contacts

Christophe MARCHAND : christophe.marchand@ibpc.fr
Stéphane LEMAIRE : stephane.lemaire@ibpc.fr