

2-Years Postdoctoral Position CryoEM studies of Membrane Transporters from Pathogenic Organisms

Team and Institute: Laboratory of Membrane Proteins and Membrane Systems, Institute for Integrative Biology of the Cell (I2BC), CEA Saclay, Paris-Saclay University, France.

Project Description: Membrane transporters play crucial roles in the survival and pathogenesis of various organisms, including pathogens. This project aims to elucidate the structure and function of membrane ion transporters from pathogenic organisms to gain insights into their roles in ion homeostasis and potential as therapeutic targets.

Position Overview: We are seeking a motivated postdoctoral researcher to join our team at I2BC for a project focused on the structural and functional characterization of membrane transporters in pathogenic organisms, taking advantage of the recent installation of two high-end microscopes (200 kV Glacios and 300 kV Krios). The position is available from November 2024 for a duration of 2 years with a possible extension up to 1 year.

Responsibilities:

- Expression and purification of membrane transporters using heterologous expression systems, including *S. cerevisiae*.
- Structural analysis of membrane transporters using cryoEM, with a focus on obtaining high-resolution structures in different functional conformations and in presence of different identified inhibitors.
- Characterization of membrane transporters using various biochemical and biophysical techniques, including but not limited to, transport assays and ligand-binding studies.
- Dissemination of research findings through scientific publications and presentations at conferences.

Candidate Profile:

- Ph.D. in Structural Biology, Biochemistry, or a related field.
- Strong background in structural biology, with experience in cryoEM or membrane protein research preferred but not mandatory.
- Proficiency in protein expression, purification, and biochemical characterization techniques.
- Ability to work independently and collaboratively within a multidisciplinary team.
- Good written and oral communication skills in English.

Salary: From to 2000 to 2800€/month (net worth), in accordance with Université Paris-Saclay standards (depending of the candidate's experience).

Application Procedure: Interested candidates should submit a CV, cover letter and contact information for two referees to Thibaud Dieudonné at [thibaud.dieudonne \[at\] i2bc.paris-saclay.fr](mailto:thibaud.dieudonne@i2bc.paris-saclay.fr). Application deadline : 31st of July 2024.