



Funded PhD position

Role of septins in tissue architecture

Institut Fresnel, Marseille, France

We seek a **doctoral fellow** in the context of our project SEPTISS which aims at elucidating the **role of septins in epithelial tissues**.

Septins make up a family of ubiquitous cytoskeletal proteins that self-assemble into filaments and associate with cell membranes, actin filaments and microtubules. They have been qualified as the “fourth cytoskeletal element”, however their precise function *in vivo* remains elusive. We have preliminary data that demonstrate that septins play an essential role in the ability of cells to resist mechanical stress and deformations.

To gain insights into the role of septins in epithelial tissue architecture and mechanics, the fellow will use the *Drosophila* embryo as a model system and a combination of experimental techniques, including live tissue imaging, magnetic and laser manipulations, polarization-resolved fluorescence microscopy and super-resolution microscopy.

We are looking for an enthusiastic, ambitious candidate to join our efforts in elucidating animal septin organization and function. Applicants should have a background in biophysics, bioengineering, cell and developmental biology, or a closely related field. Prior experience with tissue mechanical measurements, image analysis and data science or *Drosophila* genetics and handling will be a plus, but is not required.

Funding covers the duration of the PhD thesis, starting in 2023.

Interested applicants are invited to submit a letter of interest, a CV, and contact information for two references to [Loïc Le Goff](mailto:loic.legoff@fresnel.fr) (loic.legoff@fresnel.fr) and [Manos Mavrakis](mailto:manos.mavrakis@fresnel.fr) (manos.mavrakis@fresnel.fr).

