



Position: Internship for electron microscopy of *C. elegans* samples

The Electron Microscopy Core Facility (EMCF), headed by Yannick Schwab, and the Rapti group, at EMBL Heidelberg, are seeking an intern student to contribute to a collaborative project in electron microscopy of the *C. elegans* nervous system.

The Electron Microscopy Core Facility (EMCF) provides advanced expertise in cellular electron microscopy and image analysis for various biological samples, with a focus on 2D/3D ultrastructural analysis and in correlative methods. The Rapti group is dissecting mechanisms of nervous system formation *in vivo*, in *C. elegans*. We have initiated collaborations to perform electron microscopy of different animal life stages and genetic backgrounds, in order to describe nervous system ultrastructure in relation to its underlying cellular and molecular mechanisms. A forefront in our studies is the characterization of how assembly of neural circuits begins in early development. Studying this involves defining ideal protocols of specific sample preparations and performing cutting-edge electron microscopy methodologies.

We are offering a six month internship, where you can contribute to our efforts in this direction.

Your role

Your main role will be to help with volume electron microscopy acquisition and data analysis. For this, you will receive a basic training for supervising FIB-SEM acquisitions and tracing of neurites from the resulting EM datasets. In addition, you will have the opportunity to be exposed and learn about several methodologies including High Pressure Freezing (HPF), Focused Ion Beam Scanning Electron Microscopes (FIBSEM) and Correlative Light and Electron microscopy (CLEM), *C. elegans* animal/embryo handling, image analysis, data dissemination in public repositories.

You have

- Solid understanding of undergraduate cellular biology
- Good communication and organizational skills
- Ability and motivation to collaborate efficiently and to work independently
- Basic experience in *C. elegans* handling is an advantage but not prerequisite
- Basic experience in microscopy is an advantage but not prerequisite
- Basic experience in image analysis is an advantage but not prerequisite

Why join us

What you can gain from this internship:

Practice your communication, organizational and collaborative skills

Learn electron microscopy methodologies

Learn *C. elegans* methodologies

Experience the EMBL science and culture

Co-authorship on future publications is possible

Remuneration: 450 Euro/month plus accommodation if you do not reside in Heidelberg