



### Position: Internship for genomics studies of *C. elegans* nervous system

The Rapti group, at EMBL Heidelberg, in collaboration with the EMBL Genomics Core Facility headed by Vladimir Benes, are seeking an intern student to contribute to a collaborative project of genomics studies in the *C. elegans* nervous system.

The Rapti group is dissecting mechanisms of nervous system formation *in vivo*, in *C. elegans*, focusing on dissecting neuronal and glial mechanisms that pattern, assemble and maintain neural circuit architecture.

The EMBL Genomics Core Facility is equipped with state-of-the-art technologies required for functional genomics analyses and operated by highly-qualified staff. It provides advanced expertise in various genomic technologies and pipelines including sequencing, transcriptomics and the data analysis involved. It can perform genomics of defined cells of interest, in collaboration with the Flow Cytometry Core Facility.

Together, we initiated collaborations to perform genomics of cells that pioneer the *C. elegans* neuropil, in order to dissect the cellular and molecular mechanisms of their formation, a forefront in our studies. Studying this involves developing sample preparation methods and performing cutting-edge genomics. We are offering a 6-9month internship, where you can contribute to our efforts in these directions.

### Your role

Your main role will be to develop and/or apply established methods of sample preparation for isolating brain pioneer cells from *C. elegans*, and perform transcriptomics in these cells in different genetic backgrounds. For this, you will receive a basic training for *C. elegans* handling and maintenance, and for methodologies of pioneer cells isolation, flow cytometry and transcriptomics methods. You will have the opportunity to be exposed to and learn about various methodologies including FACs, single-cell-RNA-sequencing, data analysis as well as *C. elegans* animal/embryo handling, neurobiology and embryology. Wet lab experience is necessary, dry lab experience is desirable but not required. Experience in *C. elegans*/ molecular biology/ genomics is desirable but not required.

### You have

- Solid understanding of undergraduate molecular 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 genomics techniques is an advantage but not prerequisite
- Basic experience in programming languages is an advantage but not prerequisite

### Why join us

What you can gain from this internship:

Practice your communication, organizational and collaborative skills

Learn genomics and *C. elegans* methodologies

Experience the EMBL science and culture

Co-authorship on future publications is possible

Remuneration: 450 Euro/month (accommodation is also provided if you do not reside in Heidelberg)