Postdoctoral Fellowship in Structural Biology at Uppsala University

Job description

A two-year postdoctoral fellowship stipend, funded by the Carl Tryggers Foundation, is available in the group of Professor Sebastian Deindl in the Department of Cell and Molecular Biology at Uppsala University, Sweden.

The ERC-funded group of Professor Deindl focuses on investigating the molecular mechanisms of protein machines in the regulation of gene expression using a highly multidisciplinary approach that combines structural and biochemical approaches with single-molecule imaging (e.g., Marklund et al., *Science* 2022; Bacic et al, *eLife* 2021; Marklund et al., *Nature* 2020). For more information about the research in the Deindl group, please visit: https://deindl-lab.com/

We offer you to become part of a dynamic, ambitious group and a stimulating multidisciplinary environment where you will work closely with experts in biophysics, biochemistry, and structural and molecular biology.

We are looking for a person with an excellent track record and a strong motivation to identify and solve scientific problems. The postdoctoral fellow will be working towards the structure determination of nucleosomes in complex with chromatin-binding factors. The focus is on using novel cryo-EM analyses (such as time-resolved sample preparation) to gain new mechanistic insights into chromatin-associated processes.

The group is hosted in an international, multidisciplinary and dynamic environment with extensive opportunities to learn new techniques. Uppsala University recently installed a 200 kV Glacios cryo- electron microscope with a Falcon III direct electron detector, and another facility housing a 300 kV Titan Krios equipped with a K3 detector with an energy filter is located nearby, at the SciLifeLab campus in Solna, less than 60 min from Uppsala: **www.scilifelab.se/units/cryo-em/**

Required qualifications

- A PhD in structural biology, biochemistry, biophysics or a related area. To qualify for the fellowship, you must have obtained your PhD no earlier than 6 years ago. (Periods of long-term sick leave or parental leave count as deductible time.)
- Documented experience in single-particle cryo-electron microscopy including sample preparation, data acquisition, image processing, and atomic model building/refinement.
- Proficiency with the management of research software such as RELION, cryoSPARC and other programs relevant to cryo-EM and structural biology.
- Demonstrated scientific excellence as evidenced by a strong publication track record.
- Excellent oral and written communication skills in English.
- Good interpersonal skills.

Desired additional qualifications

- Experience in managing large cryo-EM data sets (timely retrieval from facilities, processing, interpretation, archiving and deposition into the public databases PDB, EMDB and EMPIAR).

The application should be written in English and include:

1. Letter of motivation with a short description of your research interests, and why you feel you are a good match for the project (1 page).
2. CV, including a description of relevant skills and experiences, as well as a full publication list.
3. Copy of PhD diploma. Please state clearly if you have not received your diploma yet.
4. Names, e-mail addresses and telephone numbers for 2-3 referees. State their professional relation to you (e.g., PhD supervisor). Please do not include references in your application.

Starting date: as soon as possible or as otherwise agreed

Stipend: 25,000 SEK per month, tax-free. The fellow will be covered by public health insurance.

Informal inquiries and applications should be sent to Martha Schattenhofer, martha.schattenhofer@icm.uu.se, with subject header "Postdoc in Structural Biology", no later than January 31st, 2023.

About the host institution

Uppsala University is a comprehensive research-intensive university with a strong international standing. Our ultimate goal is to conduct education and research of the highest quality and relevance to make a long-term difference in society. Our most important assets are all the individuals whose curiosity and dedication make Uppsala University one of Sweden's most exciting workplaces. Uppsala University has over 54,000 students, more than 7,500 employees and a turnover of around SEK 8 billion.

The Department of Cell and Molecular Biology is organized into seven research programmes which all focus on different areas of cell and molecular biology: Computational Biology and Bioinformatics, Microbiology and Immunology, Molecular Biology, Molecular Biophysics, Molecular Evolution, Molecular Systems Biology and Structural Biology. The scientific basis of what we do lies in biology, but our research overlaps with other areas such as medicine, computer science, mathematics, chemistry, engineering sciences and physics. In total, we are over 200 staff and around 60 Ph.D. students. Please read more about the department's work at **www.icm.uu.se**. The advertised position is available in the group of Professor Sebastian Deindl.

Are you considering moving to Sweden to work at Uppsala University? If so, you will find a lot of information about working and living in Sweden at **www.uu.se/joinus**.