

Fellowship for Postdoctoral Research Studies in Chromatin and Epigenetics

at the Department of Molecular Biosciences, The Wenner-Gren Institute, Stockholm University.

Reference number: SU-465-0113-24

Deadline for applications: 2024-06-05

Stockholm University is a leading European university offering a multicultural environment in one of the world's most dynamic capital cities. With more than 60,000 students and 5,000 staff, the University facilitates individual and societal development by providing top quality education and research.

Research at the Department of Molecular Biosciences, The Wenner-Gren Institute (MBW) experimentally addresses fundamental problems in molecular cell biology, integrative biology, and infection and immunobiology. State-of-the art and advanced methodologies are applied in a professional research environment characterized by its well-established international profile. The institute has 30 research groups with a research staff of 200, of which 65 are PhD students. Read more about MBW at www.su.se/mbw.

Project description

Epigenetic patterns of histone modifications contribute to the maintenance of tissue-specific gene expression, but little is known about how such patterns are initially established during early embryo development. This laboratory is using genomic, genetic, and transgenic approaches in *Drosophila melanogaster* to elucidate the molecular mechanisms of transcriptional and chromatin regulator function during development. A combination of genomic methods such as Hi-C, scRNA-seq, PRO-seq, ChIP-seq and CUT&Tag are used to probe patterning of the embryo (Ing-Simmons et al. Nature Genet, 2021, Hunt et al. Genome Biology 2024). A histone replacement system is used to examine the effects of amino acid substitutions in the histones on organismal development (Regadas et al. Mol Cell, 2021), and a modified CRISPR/Cas9 system is employed to target chromatin modifying enzymes to endogenous loci (Sujwan and Mannervik, Sci Rep, 2019).

The position is available immediately and requires a recent Ph.D. as well as extensive experience in molecular biology techniques.

Qualification requirements

The successful candidate must have received a doctoral degree from an accredited college/university outside Sweden. The degree should have been completed no more than three years before the deadline for applications. An older degree may be acceptable under special circumstances, which may involve sick leave, parental leave, clinical attachment, elected positions in trade unions, or similar.

The successful applicant should have a high-quality publication record, experience with bioinformatics and *Drosophila* genetics, and the motivation to study underlying mechanisms of gene regulation in development.

Terms of the fellowship

The terms of this fellowship are regulated by the rules for postdoctoral fellowships at the Stockholm University (<http://www.su.se/mbw/mbw-internal/scholarship/guidelines-for-scholarship>). The fellowship is for full-time postdoctoral studies during 2 years, and includes health insurance.

Start date as per agreement.

Additional information

Further information about the research project and about the conditions of this fellowship can be obtained from Mattias Mannervik, mattias.mannervik@su.se, tel: +46-8-161565.

Read more about the group and the project here:

<https://www.su.se/mbw/research/research-groups/integrative-biology/group-mannervik>

Application

Applications should be marked with reference number SU-465-0113-24 and submitted electronically **as a single PDF file**. The PDF should be sent to the following addresses:

- mattias.mannervik@su.se
- alexander.malmstedt@su.se

The application deadline is 2024-06-05

The applications should comprise the following parts:

- 1) Complete CV, including full contact information, date of birth, and copy of the PhD title
- 2) List of publications
- 3) Personal statement describing research interests (1-2 paragraphs), research experience (1–2 paragraphs) and why you apply for this position (1-2 paragraphs)
- 4) Please provide also the names, e-mail addresses and telephone numbers of 2-3 references