



**SAHLGRENKA ACADEMY
INSTITUTE OF BIOMEDICINE**

Diariennr: GU 2024/2604

Institute of biomedicine

2024-09-05

Announcement of scholarship – postdoctoral fellow

Project Title: Postdoctoral fellow in computational biology

Project duration and dates: 2024-12-01 – 2026-11-30

Application deadline: 2024-09-26

Supervisor: Abhishek Niroula, Associate Senior Lecturer

Contact: +46 72 442 0580, abhishek.niroula@gu.se

Project summary:

We are searching for a highly motivated postdoc interested in developing and applying computational approaches to understand how blood cell clones expand and contribute to the onset of diseases.

Clonal hematopoiesis is a premalignant condition characterized by the expansion of blood cell clones in healthy individuals with no signs of blood disorder. Individuals with large blood cell clones are predisposed to blood malignancies and age-related diseases, including cardiovascular disorders. Clonal evolution and transformation into malignancies is influenced by a complex interplay of genetic and environmental factors.

The aim of this project is to determine the regulators of clonal expansion and transformation into malignancies. How somatic and germline genetic variations influence clonal expansion of blood cells? The project involves systematic analysis of genomic and medical data from large population cohorts as well as publicly available multi-omics data.

The position is fully funded for 2 years. The successful candidate will have access to large computing platforms, diverse omics data (GWAS, exome and genome sequencing, and bulk and single-cell expression data), and a collaborative research environment.

The candidate will join a data-driven life science (DDLs) research group led by Assistant Professor Abhishek Niroula. Our interdisciplinary team currently comprises of one postdoc, two PhD students, and one researcher. The research team is affiliated with dynamic national and local networks, including the [SciLifeLab & Wallenberg national program for DDLs](#) and [Wallenberg Center for Molecular and Translational Medicine \(WCMTM\)](#).

Qualifications

The successful candidate must have a PhD degree within a relevant field and a background in computational biology with application to human biology. Experience of advanced computational approaches in cancer genomics or population genomics (GWAS and causal inference) are highly valued. Relevant skills and knowledge include familiarity with variant processing and interpretation, integrative genomics, hematopoiesis and blood malignancies, and stem cell biology. The successful candidate needs to show personal suitability, including excellent communicative and collaboration skills.

How to apply

Please send your application to *abhishek.niroula@gu.se*

- Cover letter giving a description of previous research experience and a motivation to why you are applying for this position
- CV and publication list
- Copies of relevant degree certificate(s)
- Names, and contact information of at least two reference persons

For further information about the project and position, please contact:

Name: Abhishek Niroula

Position: Associate Senior Lecturer (Assistant professor)

Telephone: +46 (0)72 442 0580

E-mail: *abhishek.niroula@gu.se*

You are welcome with your application.