



## **Announcement of a Postdoc Scholarship at the Department of Experimental Medical Science in the Lab of Epigenetics and Chromatin Dynamics**

Lund University was founded in 1666 and repeatedly ranks among the world's top 100 universities. The University has 46,000 students and more than 8,000 staff based in Lund, Helsingborg and Malmö. We are united in our efforts to understand, explain and improve our world and the human condition. Lund University welcomes applicants from diverse backgrounds and experiences. Gender equality, equal opportunities and diversity are fundamental principles in all parts of the University's activities. The purpose of postdoctoral development is to promote internationalization and contribute to qualifications within research following the completion of a doctoral degree.

Lund University's Faculty of Medicine hereby welcomes applications for a postdoctoral scholarship:

**Reference number:** V2024/642

**Placement:** Department of Experimental Medical Science, Lab of Epigenetics and Chromatin Dynamics

**Duration:** 2 years

**Preliminary start date:** 2024-05-13

**Application deadline:** 2024-04-27

**Contact person/supervisor:** Christopher Douse, +46(0)462220644 (office), christopher.douse@med.lu.se

### **Epigenetic control of genomic repeats in human brain development and degeneration**

We are seeking a postdoctoral fellow to join a new team led by Christopher Douse based at the Lund Stem Cell Center. At the Lab of Epigenetics and Chromatin Dynamics, we are interested in applying biochemical and functional genomic methods to explore molecular mechanisms of chromatin regulation. Specifically, our research asks: how do epigenetic mechanisms control the repetitive genome – so-called 'genomic dark matter' – in human brain development? Recent advances in long-read sequencing, targeted epigenomics, stem cell biology and a toolbox of CRISPR methods have now

empowered us to answer this challenging question. See two recent preprint from the lab as an example of the sorts of work we do:

<https://www.biorxiv.org/content/10.1101/2023.06.21.545516v1.full>

<https://www.biorxiv.org/content/10.1101/2023.10.20.563233v1>

We are particularly driven to find out how transposable and other repetitive elements are regulated by protein complexes that package DNA into chromatin, and how chromatin influences transcriptional dynamics. Notably, genetic disorders associated with genomic repeats often manifest with neurological symptoms, while mutations in epigenetic and chromatin regulators are a frequent cause of neurodevelopmental disorders. There are therefore strong, converging clinical links between repeats, epigenetics, and neurological disease – but a lack of functional and mechanistic studies to directly address these links. As a postdoc in the lab, you would take part in a project to interrogate these mechanisms.

### **Qualifications:**

- To be eligible for a postdoc scholarship at Lund University the recipient must hold a PhD degree within a relevant field. **Note, that the PhD degree should not be older than three years due to local eligibility rules.**
- The position would ideally suit a molecular biologist with expertise in long-read genomics. An interest in epigenetics, chromatin and/or the repetitive genome is essential. Personal qualities are emphasized
- Fluency in written and spoken English is essential.
- The applicant must not have been employed at Lund University in the past two years.

**A written application, including reference number, is to be sent via e-mail to the supervisor and must include the following:**

- PhD certificate
- CV including a list of publications/preprints if applicable.
- Personal letter, stating the reasons why the position interests you and what you think you could bring to the team (maximum one page)
- Information of at least two references

### **Information regarding scholarships at Lund University**

- The scholarship follows Lund University regulations STYR 2020/1283.

- Scholarships are intended for the recipient's own education and do not represent remuneration for work carried out on the University's behalf.
- The department and the recipient are to formulate, in writing, an agreed study plan for the recipient's development.
- The postdoctoral scholarship is paid quarterly.
- Approved scholarships are reassessed every six months. Scholarship recipients are to complete their education/career development and satisfy attendance requirements in accordance with their course plan/study plan/professional development plan. In the event of misconduct, or if the recipient is not deemed able to complete their education/career development due to illness or on other grounds, scholarship funds that have been granted but not yet paid may be withdrawn.
- The scholarship is a gift and is therefore not taxed. It is possible that the recipient may be taxed in their home country – something the recipient should investigate beforehand.
- Scholarships do not entitle the recipient to sick pay, parental leave, holiday pay or pensions.
- The recipient is not entitled to subsistence allowance for travel.
- The recipient is protected by insurance coverage but must check their own insurance requirements.
- Scholarships to a single individual at Lund University may not exceed a total of 24 months.
- The recipient is to be treated equally with other students in the same situation regardless of financing while being assured of and contributing to a good work environment.