



Department of Laboratory Medicine

FACULTY OF MEDICINE

Dnr: V2024/180

February 8, 2024

Announcement of a Postdoc Scholarship at the Department of Laboratory Medicine Division of Translational Cancer Research

Lund University was founded in 1666 and is repeatedly ranked among the world's top 100 universities. The University has around 46 000 students and more than 8 400 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 with diverse backgrounds and experiences. We regard gender equality and diversity as a strength and an asset. The purpose of postdoctoral development is to promote internationalization and contribute to qualifications within research following the completion of a doctoral degree.

Lund University, Faculty of Medicine hereby invites applications for a postdoctoral scholarship:

Reference number: V2024/180

Placement: Department of Laboratory Medicine, Division of Translational Cancer Research

Scholarship period: 2 years

Preliminary start date: 1 May 2024

Last day for applying: 2024-03-20

Supervisor/contact person: Charlotte Rolny, charlotte.rolny@med.lu.se

Novel Strategies to Reprogram Tumor-Associated Macrophages

Tumor-associated macrophages (TAMs) are dynamic cells displaying a spectrum of states and phenotypes ranging from anti-tumor/immunostimulating (often termed M1-like) to pro-tumor/immunosuppressive (also known as M2-like). Previous research has demonstrated that TAMs located in close proximity to tumor vessels (perivascular TAMs) promote vessel abnormalization and facilitate metastatic dissemination. Both published and preliminary data suggest the relevance of perivascular TAMs in human cancers, as their accumulation correlates with increased malignancy and metastasis. Moreover, pro-tumor TAMs contribute to tumor growth by inhibiting tumor-infiltrating lymphocytes (TILs) that target tumor cells. Hence, TAMs can assume diverse and crucial roles in cancer progression. However, our understanding of how these distinct TAM phenotypes manifest remains limited.

Over the years, Rolny and colleagues have demonstrated that reprogramming the pro-tumor phenotype of TAMs into an anti-tumor

phenotype represents a promising anti-cancer strategy. We have now identified a unique pathway that regulates the pro-tumor functions of TAMs, offering potential for the development of novel anti-cancer targets. The postdoctoral project will investigate downstream targets of this pathway to identify novel strategies for reprogramming TAMs in experimental models as well as patient samples.

For examples of how the research can be conducted, please see:

<https://pubmed.ncbi.nlm.nih.gov/38041815/>

<https://pubmed.ncbi.nlm.nih.gov/37142795/>

<https://pubmed.ncbi.nlm.nih.gov/33077599/>

<https://pubmed.ncbi.nlm.nih.gov/27197153/>

Your profile

We are actively seeking a motivated and creative postdoctoral candidate who possesses an interest in investigating the drivers behind the pro-tumoral functions of TAMs. This research endeavor will encompass cutting-edge molecular biology techniques, animal tumor models, and patient samples. The candidate should be capable of generating novel ideas, acquire knowledge independently and possess sufficient computational skills to evaluate and develop ongoing projects. It is preferable that the applicant has a background in tumor biology. F. Because of the scope of the project, knowledge and experience in animal work, flow cytometry analysis and confocal microscopy imaging is strongly desired.

Qualifications:

- To be eligible for a post doc scholarship at Lund University the recipient must hold a PhD degree within a relevant field.
- The PhD degree **must not be older than three years**.
- The applicant must not have been employed at Lund University in the past two years.
- Fluency in spoken and written English is required.

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

- PhD diploma
- CV
- Personal letter, stating the reasons why the project suits the applicant (maximum one page)
- List of publications
- References (2)

Information regarding scholarships at Lund University

- The scholarship follows the regulations established by the Vice-Chancellor of Lund University, Reg. No STYR 2020/1283.
- The scholarship is intended for the holder's own education/professional development and does not constitute remuneration for work or other service that has been carried out or will be carried out on behalf of the University.
- The host faculty/department and the scholarship holder shall draw up in writing an agreed plan for the project/development.
- The scholarship amount is paid out quarterly and amounts to 28,000 SEK a month.
- The granted scholarship is reviewed every six months. Scholarship recipients are to complete their education/career development and be present in line with their project plan/professional development plan. In the event of misconduct, or if the recipients are not deemed able to complete their education/qualification due to illness or on other grounds, scholarship funds that have been granted but not yet paid may be withdrawn.
- Scholarships are tax-exempt. There may be a risk of the scholarship holder being taxed in his/her home country; the scholarship holder should investigate this before the period of the scholarship.
- The scholarship holder is not entitled to sickness benefit, parental allowance, holiday pay or pension.
- The scholarship holder is not entitled to subsistence allowance during travel.
- The scholarship holder is to be treated equally to students/researchers in the same situation regardless of the sources of funding and the scholarship holder should be ensured and contribute to a good working environment.