



Department of Laboratory Medicine

## FACULTY OF MEDICINE

Dnr: V 2024/1256

May 31, 2024

### **The Department of Laboratory Medicine, Division of Translational Cancer Research hereby announces an education scholarship**

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 and equal opportunities and diversity are fundamental principles in all parts of the University's activities.

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

**Reference number:** V 2024/1256

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

**Duration:** 2 months

**Preliminary start date:** 2024-07-15

**Application deadline:** 2024-07-07

**Contact person/supervisor:** Kazi Uddin, 0462226407,  
kazi.uddin@med.lu.se

### **Estimating Cancer Drug Combination Scores**

The aim of this scholarship is to support a master's student in creating a Python-based tool capable of calculating drug combination scores using data from single drugs and 1:1 combination responses. The specific objectives include the generation of in vitro drug sensitivity data, utilizing appropriate inhibitors and cell lines; screening different algorithms for prediction by evaluating various algorithms for predicting the complete drug response matrix from single drug and 1:1 combination response data; and the development of a Python tool with a graphical user interface (GUI) to determine drug synergy using single drug and 1:1 combination response data.

**Qualifications/abilities required:**

- Student at a higher education institution.
- Proficiency in Python programming, including experience with data manipulation libraries.
- Knowledge of machine learning algorithms and experience using libraries such as scikit-learn, TensorFlow, or PyTorch.
- Familiarity with statistical analysis and bioinformatics tools.
- Understanding of pharmacology, particularly drug response assays and synergy assessments.

**Written application including reference number is sent by email to the contact person and is to contain:**

- CV.
- Covering letter, explaining why the nature of the studies suits the applicant.
- References.
- Documents that show that the student has been admitted to first or second-cycle studies (e.g. LADOK certificate of registration or the equivalent).

**Information about receiving a scholarship from 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 education scholarship is paid monthly.
- 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.