



SAHLGRENKA AKADEMIN INSTITUTIONEN FÖR BIOMEDICIN

Utlysning

Project Title: Genetic profiling of non-small cell lung cancer (NSCLC) using NGS methods

Project duration and dates: 2026-06-29 to 2026-08-29

Application deadline:

Amount: 2500kr/vecka

Project summary:

The overall aim of the research group is to identify key genetic biomarkers that correlate with clinical outcomes—such as partial or complete response, progression-free survival, overall survival, or progressive disease—in patients with non-small cell lung cancer (NSCLC) undergoing immune checkpoint inhibitor therapy. This is achieved through broad genomic profiling of both solid tumour tissue and circulating tumour DNA (ctDNA) using multiple next-generation sequencing (NGS) technologies.

The purpose of this student project is to evaluate and optimize laboratory and bioinformatic workflows for NGS-based analysis of ctDNA. The student will establish, test, and compare different experimental methods and computational pipelines, gaining hands-on experience in all laboratory steps—from plasma DNA extraction and library preparation to sequencing and quality control. In parallel, the student will develop advanced competence in bioinformatic analysis, including optimization, comparison, and interpretation of sequencing results across different analytical tools and workflows.

By participating in this research project, the student will gain practical experience with genetic and molecular techniques, learn how to handle clinical samples, and acquire skills in analysing and interpreting data generated from genomic and bioinformatic pipelines. The student is expected to collaborate effectively with technical staff and researchers, while also being able to work independently in the laboratory environment.

Application:

Applications should be emailed to anna.rohlin@vgregion.se The application should include; Motivation letter, CV including contact info.