

## **Technology development and application for next-generation sequencing of cancer**

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Project start: Aug 2010, Application deadline: 1<sup>st</sup> June 2010

### ***Project description***

A new generation of DNA sequencing instruments is currently dramatically changing the field of molecular genetics and pharmacogenomics by enabling rapid acquisition of large data amounts. The current projects are part of a larger project aiming to a pipeline for targeted resequencing of genomic regions using next generation sequencing platforms. In this project we will develop and apply a technology for high throughput sequencing using the Selector Technology™. The Selector Technology enables selective amplification of large numbers of genomic loci in a single reaction enabling re-sequencing of large gene sets involved in for example cancer. The project involves further development and application of the genetic enrichment procedure for downstream parallel sequencing using the ABI SOLiD, Roche 454 and Illumina GA instruments. The exact objective will be adjusted depending on student background and skills. The projects may serve as a foundation to further PhD studies or employment in the spin out company.

### ***Olink Genomics AB***

Olink Genomics is a spin out company formed by researchers at Uppsala University together with Olink Biosciences AB. The company is located in Uppsala Science Park and is based on beyond state of the art technology enabling researchers globally to execute projects previously not possible.

### ***Applicant***

Interesting applicants include students with background in molecular biology, engineering with medical focus, biotechnology, medicine, biomedicine or pharmacy, and software development/programming however other backgrounds may be acceptable. Previous laboratory or programming experience is an advantage, interest and motivation is essential. After initial introduction the project is designed to allow the student to gradually design and push the research project independently, however always in the context of the group, and good communicative and social skills are required. Applications will be evaluated and subsequently interviews will be performed. CV comprising relevant educational and professional history including grades is mandatory, references and/or letter(s) of recommendation may increase chances to be accepted.

Applications by email only