

Welcome to the workshop “Target capture for NGS sequencing”. All events will take place in sal 11 (2nd floor), Carl Skottsbergs gata 22B.

This is the schedule:

Monday, March 21st **Pre-lab procedures**

0900-1000 Lecture: Introduction to target capture and enrichment. *Isabel Liberal*

1000-1030 Coffee

1030-1200 Lecture: Probe design- how do you extract sequences from target regions that are useful for you. Transcriptome assembly. Sequence comparisons, BLAST, interpreting results. *Mats Töpel*

1200-1400 Lunch

1400-1700 Five minute presentations from all participants. Three slides:

- Title of my NGS project, organism.
- What I expect from Target capture techniques in terms of data and results.
- Which data is already available from my target organism (genome, transcriptome, etc.)

Tuesday, March 22nd. **Lab procedures**

0900-1000 Lecture: Preparing samples for libraries. Overview of protocol. DNA quality. Why and how. Different options. *Isabel Liberal*

1000-1030 Coffee

1030-1200 Lecture: Hybridization and sequencing. *Isabel Liberal*

1200-1400 Lunch

1400- Lecture & Discussion: Downloading data. Disk space. Bioinformatic requirements. Planning. Necessity to automate. Large data sets. *Mats Töpel*

Wednesday, March 23rd. **Post-sequencing procedures**

0830-0930 Project talk by *Filip Kolar*

0930-1000 Coffee

1000-1200 Lecture: What do the results look like. Quality check, read counts, trimming, contaminants. FASTQ. *Patrik Cangren*

1200-1400 Lunch

1400-1530 Lecture & Demonstration: de novo assembly, mapping, identifying target regions. Phasing. BAM files. *Tobias Hofmann*

1530-1600 Coffee

1600-1700 Continuations

Social event

Thursday, March 24th

Contemplate about your own data, play with example data sets (assisted).

Welcome!

Bengt Oxelman (University of Gothenburg), Hugo deBoer (ForBio), Patrik Cangren, Tobias Hofmann, Isabel Liberal, Mats Töpel