

## Abstract

During the last decade, Next Generation sequencing technologies have revolutionized basic, applied, and clinical research. However experimental planning and data analysis of the generated data is often not trivial. This seminar is a modification of a talk given at the 2016 workshop “Big Data Training for Translational Omics Research” and is a brief overview, covering the basics of RNA-seq experimental planning and data analysis. The beginning of the talk will focus on experimental planning and decisions which must be made prior to sequencing, such as biological replication, technical replication, single-end versus paired-end sequencing, and depth of sequencing. A very brief introduction will be given to the analysis of RNA-Seq data, including quality control, read alignment, and performing differential expression analyses.