



## Next-Gen Sequencing and Data Analysis Workshops 2024

## RNASeq Data Analysis 5-Day In-Person Workshop 14-18/10/2024, Prague, CZ

- General introduction to data analysis
- Unix environment and Linux introduction
- Overview of common data formats
- Working with data from NCBI and other databases (SRAtool kit)
- Data quality control
- Editing sequences in various programs (FASTXtoolkit ...)
- Introduction to alignment
- Introduction to R
- Mapping to genome and gene expression estimation
- Mapping to transcriptome and transcript abundance estimation
- Count data standardization and quality control
- Exploratory data analysis, dimensionality reduction, clustering
- Analysis of differential expression
- Multiple comparisons problem
- Biological interpretation using Gene Set Enrichment Analysis
- Data visualization

## Full-Length Metagenomic Analysis by ONT Sequencing 3-Day In-Person Workshop 5-7/11/2024, Prague, CZ

- Overview of Oxford Nanopore (ONT) sequencing technology
- Fundamentals of metagenomic analysis
- Metagenomic studies and their objectives
- Applications of metagenomics
- Practical aspects of ONT sequencing
- ONT Workflow Optimization
- Advanced Data Analysis Techniques
  - Exploration of metagenomic data analysis tools and techniques
  - Analyze real-world metagenomic datasets
- Amplicon-based metagenomic analysis
- Whole-genome metagenomic analysis

Open-source tools only! Lunches and refreshments included. All participants perform all steps themselves using the computer provided.

**REGISTRATION OPEN!** 

## www.seqme.eu