

**Program for a 3-days training at the EURL-VTEC, Istituto Superiore di Sanità, Rome,  
on the use of bioinformatics tools for Next Generation Sequencing data mining  
for typing pathogenic *E. coli***

**Day 1 (13:30-17:00)**

- Welcome, housekeeping, and general overview of the training course
- Introduction to Next generation sequencing data formats and basic tools for analysis
- Overview of the public servers providing tools for NGS data analysis
- Quality check of whole genome sequences
- Assembly of the raw reads

**Day 2 (09:30-17:30)**

- NGS-based virulotyping and serotyping of *E. coli*
- Multi Locus Sequence Typing (7-genes) from NGS data
- Whole genome SNPs comparison: Reference-based and Reference-free approaches

**Day 3 (09:30-12:30)**

- Accessory genome MLST
- Analysis of the results
- General discussion on the subject of the training stage

***The training includes explanatory discussions driven by the EURL-VTEC experts and practical sessions carried out by the trainee with a hands-on approach, under the supervision of the EURL-VTEC staff.***