



**EU Reference Laboratory for *E. coli***  
Department of Food Safety, Nutrition and Veterinary Public Health  
Unit of Microbiology Food Safety and Foodborne Diseases  
**Istituto Superiore di Sanità**



# **Training Course on WGS data use: bioinformatics for NGS data mining for typing pathogenic *E. coli***

**2 days**

**Online course**

**Istituto Superiore di Sanità**



**Organized by:**

**The EU Reference Laboratory for *E. coli***

**Funded by the European Commission – DG SANTE**

## PROGRAM

### Day 1

**09.30**      **Start of the training stage**

**09.40**      Welcome, housekeeping, and general overview on the training course

#### **Session 1**

**09.50**      Introduction to the ARIES webserver user-interface

**10.20**      *E. coli* serotyping through ARIES

**10.40**      Pathogenic *E. coli*: overview of virulence genes and *stx* subtypes and introduction to virulotyping approaches on ARIES

**11.10**      Explanation of the tasks assigned to the trainees to be carried out during the hands-on session (Data preparation, *E. coli* serotyping, *E. coli* virulotyping, *stx* subtyping)

**11.40**      **End of session 1**

**14.30**      Live chat assistance for possible problems/questions arising during hands-on session

**16.00**      **End of Day 1**

### Day 2

#### **Session 2**

**09.30**      Results discussion

**10.15**      Introduction to Multi Locus Sequence Typing: 7-genes MLST typing approaches through ARIES

**10.45**      Introduction to cgMLST: chewBBACA and chewTree for cluster analysis

**11.10**      Explanation of the tasks assigned to the trainees to be carried out during the hands-on session (7-genes MLST, chewBBACA, chewTree)

**11.40**      **End of session 2**

**13.40**      Live chat assistance for possible problems/questions arising during hands-on session

#### **Session 3**

<b>15.30</b>	Results discussion
<b>16.15</b>	Introduction to outbreak investigation flow
<b>16.45</b>	General discussion on the activities carried out
<b>17.00</b>	Satisfaction survey
<b>17.15</b>	<b>Closure</b>