Target Audience
The target audience will be EUCIC Certificate attendees. All medical doctors and those with an MSc or PhD who are pharmacists, nurses or other healthcare professionals with a specific interest in surveillance, antimicrobial stewardship and infection prevention and control are eligible.

Confirmed Faculty Members
Mirela Flonta, Cluj-Napoca, Romania
Dragos Florea, Bucharest, Romania
Dan Otelea, Bucharest, Romania
Simona Paraschiv, Bucharest, Romania
Daniela Pitigoi, Bucharest, Romania
Oana Sandulescu, Bucharest, Romania
Marius Surleac, Bucharest, Romania

Module Objectives
By the end of this module the participants will be able to:
• Describe the advantages and limits of integrating molecular diagnostic and epidemiology techniques in IC decision making
• Understand the complementarity between classic and molecular laboratory tools
• Understand the molecular diagnostic technologies (PCR, 16S metagenomics, Whole Genome Sequencing)
• Be familiar with main bioinformatics resources (databases and tools)
• Understand basic principles behind most common bioinformatics methods
• Use bioinformatics resources for species prediction, ST and MLST predictions, antibiotic resistance genes (ARGs) and virulence factors predictions
**Module Programme**

**Wednesday, 27 May**

**Integrating molecular diagnostic and epidemiology techniques in IC decision making**

**Location:** National Institute for Infectious Diseases
Prof. Dr. Matei Bals

**Chair:** Dan Otelea

9:00 Registration and coffee

9:30 Welcome lecture
Dan Otelea

10:00 Outbreak assessment - from thorough investigation to rapid response
Dana Săndulescu, Daniela Pitigoi

11:00 Coffee break

11:15 WHONET – an effective computerized microbiology laboratory data management
Mirela Flonta

12:15 Lunch break

13:15 WHONET – practical demonstration
Mirela Flonta

13:15 Coffee break

14:15 Real-time PCR-guided infection control decisions
Dragos Florea

15:45 Coffee break

16:00 Real-time PCR guided infection control decisions
Dragos Florea

17:00 End of Day

**Thursday, 28 May**

**16S metagenomics protocol and data interpretation**

**Location:** National Institute for Infectious Diseases
Prof. Dr. Matei Bals

**Chair:** Dragos Florea

9:00 Introduction in 16S metagenomics sequencing protocol
Simona Paraschiv

10:00 Coffee break

10:15 16S metagenomics sequencing protocol – practical demonstration
Simona Paraschiv

12:15 Lunch break

13:15 Bioinformatics workflow – Taxonomy analysis of the sequenced data
Marius Surleac

14:45 Coffee break

15:00 Bioinformatics workflow – Statistical analysis
Marius Surleac

16:30 End of Day

**Friday, 29 May**

**Whole genome Sequencing (WGS) and bioinformatics for antibiotic resistance and virulence factors identification**

**Location:** National Institute for Infectious Diseases
Prof. Dr. Matei Bals

**Chair:** Dan Otelea

9:00 Introduction in WGS Protocol
Simona Paraschiv

10:00 WGS protocol – practical demonstration
Simona Paraschiv

11:00 Coffee break

11:15 Bioinformatics workflow – data interpretation workshop
Marius Surleac

13:15 Lunch break

14:15 Bioinformatics workflow – data interpretation workshop
Marius Surleac

16:15 Coffee break

16:30 Assessment

17:00 End of Day

**Organization**

**Module Venue**
National Institute for Infectious Diseases
Prof. Dr. Matei Bals
1 Dr. Calistrat Grozovici Street
021105, Bucharest, Romania

**Registration Procedure**
Register now online on the ESCMID website at: https://www.escmid.org/research_projects/eucic/training_programme/
The registration deadline is 1 May 2020

**Registration Fee**
- EUIC trainee: Automatic registration
- ESCMID member: 400 EUR
- Non ESCMID member: 600 EUR

The fee includes course registration, course materials, lunch and coffee breaks. Dinner and accommodation are not included.

**CME Accreditation**
The organizers of the module have applied for European CME accreditation through EACCME.