

“Science meets Policy” conference:

Modern technologies to enable response to crises: Next Generation Sequencing to tackle food-borne diseases in the EU



March 10, 2020. Istituto Superiore di Sanità, Viale Regina Elena 299, 00161 Rome, Italy

Over the last decade, the rapid development of Next Generation Sequencing (NGS) for the characterization and typing of foodborne pathogens through whole genome analysis has provided many laboratories involved in testing food, animal and clinical samples with fit-for-purpose application and a realistic alternative to the classical methods. Especially in terms of precise sequences for outbreak investigation, source tracking, antibiotic resistance, virulence factors and toxicity. The acceptable costs, reasonable speed of execution and potential automation are major breakthroughs.

The EURL Working Group on NGS launches a conference with the support of the Med-Vet-Net Association.

The event aims to inform Member States about the benefits of introducing NGS for typing food-borne pathogens and to start a general discussion on the infrastructure needed to enable the competent authorities to take measures based on evidences from the application of NGS, including the requisite of the establishment of a legal framework.

The conference structure

The program will consist of presentations from representatives of the European Commission, EFSA and ECDC about the vision and the challenges of the adoption of the NGS technology. Further, the practical application of the NGS technique in multi country outbreaks will be described. Finally, a presentation on the legal aspects will be included providing a base for the following general discussion.

In the second session all participants will have the opportunity to discuss all the topics presented with a panel of experts.

Highlighting possible hindrances at country level in endorsing the NGS technique and discussing possible solutions will also represent a goal of the initiative.

If you are one of the following stakeholders you should attend this workshop

- National Reference Laboratories belonging to the EURLs networks for the biological hazards.
- Relevant Competent Authorities of the EU Member States (MS).
- Scientists that actively work on building the knowledge on the use of NGS for food safety.
- Anyone involved in the official control of food and in the diagnosis and surveillance of human food-borne infections in the EU MS.

DRAFT AGENDA

Tuesday 10 March

09:00	Welcome and Introduction (10')	Silvio Brusaferrò ISS President
09:15	Greetings (10')	Stefano Morabito Chair of the organization committee, EURL for E. coli, ISS, Rome Italy
Session 1: Building the capacity in Europe		
09:30	EC Vision on NGS (20')	Pamina Suzuki, European Commission G4
09:50	EFSA State of play and future perspectives (20')	Valentina Rizzi European Food Safety Authority
10:10	ECDC State of play and future perspectives (20')	Johanna Takkinen, European Center for Diseases Control and prevention
10:30	The inter EURL WG on NGS Work program: State of play (20')	Stefano Morabito EURL for E. coli, ISS, Rome Italy
11:00	Coffee Break (30')	
Session 2: Policy and Science		
11:30	Need for a legal framework for NGS data supporting action by the CAs (30')	George Haringhuizen RIVM, The Netherlands
12:00	NGS induced paradigm shifts in the MS daily practice of surveillance and outbreak investigation (20')	Eelco Franz RIVM, The Netherlands
12:20	Toward an extended use of whole genome sequencing for the investigation of multi-EU country <i>Listeria monocytogenes</i> outbreaks (20')	Benjamin FELIX EURL Listeria, ANSES France
12.40	Activities of the one-health EJP on the implementation and harmonization of NGS across Europe (20')	Annemarie Kaesbohrer BfR, Germany
13:00	Lunch (1h)	
14:00	Open discussion (2h, 15') Chair: Stefano Morabito Speakers: Valentina Rizzi, Johanna Takkinen, Pamina Suzuki, George Haringhuizen, Eelco Franz, Annemarie Kaesbohrer, Benjamin FELIX	
16:15	Concluding remarks and closure	