

ERFAN DIALOGUE

*Introduction to
NGS and
Bioinformatics*

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TIMETABLE

Central European Time (CET)

METHODOLOGY

The online ERFAN Dialogues days will be organized via Zoom platform

WORKING LANGUAGE

English with simultaneous translation in French

PRESENTATION

OBJECTIVES

PARTICIPANTS

PROGRAMME

TRAINERS-FACILITATORS

CONTACTS

AGENDA

PRESENTATION

The course will describe the most used *Next Generation Sequencing technologies* and their principal applications. The typical workflow will be illustrated and a particular focus will be dedicated to the main steps to implement the NGS in a diagnostic laboratory.

It will also cover an introduction to Bioinformatics tools used for microorganism analysis, especially Bacteria and Viruses.

Additionally, the GENPAT platform will be introduced, a WEB based information system storing WGS data and related metadata of pathogens. It allows also to launch bioinformatics analysis and show results through graphical and interactive dashboards.

OBJECTIVES

The aim of this training is to give a general the knowledge, skills and competences required to work with *Next Generation Sequencing technologies* and Bioinformatics tools and a brief introduction to the GENPAT platform

PARTICIPANTS

The African participants come from National Veterinary Laboratories and Veterinary schools of Northern and Southern Africa, together with the IZSAM experts from National Reference Centre for Whole Genome Sequencing of microbial pathogens: database and bioinformatics analysis

AGENDA

CHAIRMAN *Cesare Cammà*
IZSAM. Italy

Tuesday 22 February 2022

TIME	TOPIC	TRAINER
10.00 – 10.15	Opening and welcome	<i>Cesare Cammà</i> IZSAM, Italy
10.15 – 11.15	An introduction to Next-Generation Sequencing Technology	<i>Cesare Cammà</i> <i>Marco Di Domenico</i> IZSAM, Italy
11.15 – 11.30	<i>BREAK</i>	
11.30 – 12.30	Bioinformatics: a brief introduction	<i>Nicolas Radomski</i> <i>Adriano Di Pasquale</i> <i>Iolanda Mangone</i> IZSAM, Italy
12.30 – 12.45	Questions & Answers	All participants

<i>Tuesday, 1 March 2022</i>		
TIME	TOPIC	TRAINER
10.00 – 10.15	Opening and welcome	<i>Cesare Cammà</i> IZSAM, Italy
10.15 – 11.15	The NGS laboratory: equipment, protocols, bottlenecks and pitfalls	<i>Cesare Cammà</i> <i>Massimo Ancora</i> IZSAM, Italy
11.15 – 11.30	BREAK	
11.30 – 12.30	The GENPAT platform	<i>Adriano Di Pasquale</i> <i>Iolanda Mangone</i> IZSAM, Italy
12.30 – 12.45	Questions & Answers	All participants

TRAINERS-FACILITATORS

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SCIENTIFIC COORDINATORS



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