



## Agenda

# Seminar Next Generation Sequencing: Technology, Applications and Data Analysis

Teramo, 13, June, 2014

*International Centre for Veterinary Training and Information "Francesco Gramenzi" (CIFIV)*

## Introduction

Over the last 10 years, the next generation sequencing (NGS) technology highly changed the field of genomics. Nowadays, some of the main veterinary and public health laboratories are able to sequence the whole genome in few days. About two years ago, IZSAM started to apply the NGS and related bioinformatics tools for the genome analysis of several microorganisms and pathogens.

The visit of Marc Allard at IZSAM, Microbiologist and Research Area Coordinator for Genomics of the Center for Food Safety & Applied Nutrition (FDA), will give the opportunity to present the state of art of NGS at international level, with particular emphasis on the future applications of this technology in veterinary and food safety fields.

## Objectives

At the end of the Seminar, participants will be able to:

- know the actual state of art of NGS technologies at national and international level;
- know NGS applications in different scientific veterinary fields.

## Contents

13 June 2014

<i>Time</i>	<i>Subject</i>	<i>Tutor</i>
08.45	Participants Registration	Secretariat
09.00	Welcome and introduction to the seminar	G. Migliorati, Scientific Director, <i>IZSAM</i>
09.15	Next Generation Sequencing: current methods and future directions	C. Cammà, <i>IZSAM</i>
09.45	bioinfo@izsam: castore and polluce web applications	M. Orsini, I. Mangone, <i>IZSAM</i>
10.25	Molecular epidemiology by next generation sequencing with particular emphasis on Bluetongue virus	A. Lorusso, <i>IZSAM</i>
10.55	Coffee break	-
11.25	Phylogeographic reconstruction of Brucella in Italy using Whole Genome Sequencing	G. Garofolo, <i>IZSAM</i>
11.55	Genomic epidemiology	F. Cito, <i>IZSAM</i>
12.25	Integration of NGS Desktop Sequencers to Build a Global Genomic Network for Pathogen Traceback and Outbreak Detection: Description of international (GMI, WHO) and national (GenomeTrakr, 100K) activities	M. Allard, <i>FDA</i>
13.15	Discussion and conclusions	All tutors involved
13.30	Final test	-
13.45	End of the session	-

## ***Site and dates***

The event will be held at the International Centre for Veterinary Training and Information "Francesco Gramenzi" (CIFIV) in Teramo on June, 13, 2014.

## ***Scientific responsible:***

**Paolo Calistri**, COVEPI, IZSAM

## ***Tutors***

**Marc Allard**, FDA, US

**Cesare Cammà**, Biotechnology Unit, IZSAM

**Francesca Cito**, Epidemiology Unit, IZSAM

**Giuliano Garofolo**, Bacteriology Unit, IZSAM

**Alessio Lorusso**, Virology Unit, IZSAM

**Iolanda Mangone**, Biotechnology Unit, IZSAM

**Massimiliano Orsini**, Biotechnology Unit, IZSAM

## ***Contacts***

***International Centre for Veterinary Training and Information "Francesco Gramenzi" (CIFIV):***

Via G. Caporale, 64100 Teramo, Italy

+39 0861 332670

formazione@izs.it

---