

# ERFAN Laboratory training course

*Detection and characterization  
of *Listeria monocytogenes*,  
*Klebsiella pneumoniae* and  
*Salmonella spp.**

**17-21 OCTOBER 2022**

**CENTRAL VETERINARY LABORATORY**

**WINDHOEK-NAMIBIA**

# ***ERFAN LABORATORY TRAINING COURSE***

## ***Detection and characterization of *Listeria monocytogenes*, *Klebsiella pneumoniae* and *Salmonella spp.****



### **LOCATION**

Central Veterinary Laboratory, Windhoek, Namibia

### **METHODOLOGY**

Training on the job in presence involving the ERFAN Food Hygiene WGs partners, and WOAHC Collaborating Centre for Animal Production Food Safety

### **WORKING LANGUAGE**

English

**PRESENTATION**

**OBJECTIVES**

**TUTORS**

**PARTICIPANTS**

**CONTACTS**

## PRESENTATION

The training course on detection of *Listeria monocytogenes*, *Klebsiella pneumoniae* and *Salmonella* spp. has the purpose to deepen topics related to these pathogenic microorganisms and to share technical-scientific updates on analytical methods used in laboratory for testing, molecular typing, and whole genome sequencing. The training will deal with detection of *Listeria* spp. and *Listeria monocytogenes* in food, food producing environments and animals, according to ISO 11920-1:2017 and ISO 11920-2:2017 as well as the detection and isolation of *Salmonella* spp. in foods according to ISO 6579-1:2017. The training will also cover the detection, identification and characterization of antimicrobial resistance of *Klebsiella pneumoniae*.

Moreover, typing will be discussed, based mainly on whole genome sequencing.

## OBJECTIVES

At the end of the training, the participants will be able to detect and characterise the species of interest.

## TUTORS

The tutors are representative of the Central Veterinary Laboratory of Namibia (CVL), the University of Namibia, School of Veterinary medicine (UNAM), the Food Hygiene laboratory of Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta (IZSPLV), the WOAHA Collaborating Centre for Animal Production Food Safety (WOAHA CC FH) and the Italian National Reference Laboratory for *Listeria monocytogenes*.

## PARTICIPANTS

Eligible participants are ERFAN partners of Northern and Southern Africa.

The Italian Embassy in Pretoria, the Namibian CVO will participate at the training course Opening ceremony.

## 17 October 2022

TIME	TOPIC	TUTORS
08:30	Participants Registration	<b>Massimo SCACCHIA</b> ERFAN Secretariat
09.00	Opening ceremony	<b>Albertina SHILONGO</b> Chief of Veterinary Services of Namibia  <b>Siegfried KHAISEB,</b> CVL, Namibia  <b>Marina TORRESI,</b> WOAH CC FH/ IZS-Teramo, Italy  <b>Massimo SCACCHIA</b> ERFAN Secretariat  <b>Pierguido SARTI,</b> Scientific Attaché, Italian Embassy in Pretoria
09.30	<i>Listeria monocytogenes</i> : a One Health pathogen	<b>Marina TORRESI,</b> WOAH CC FH/ IZS-Teramo, Italy
10.00	<i>Listeria monocytogenes</i> : Baseline study in Namibia	<b>Yvonne HEMBERGER,</b> UNAM, Namibia
11.00	<i>COFFEE BREAK</i>	
11.30	The activities of the Italian National Reference Laboratory (NRL) of <i>Listeria monocytogenes</i>	<b>Marina TORRESI,</b> WOAH CC FH/ IZS-Teramo, Italy
12.30	Discussion	<i>All participants involved</i>
12.45	<i>LUNCH</i>	
14.00	Conventional isolation method: detection of <i>Listeria</i> spp. and <i>Listeria monocytogenes</i> according to ISO 11290-1:2017	<b>Gabriella CENTOROTOLA,</b> WOAH CC FH/ IZS-Teramo, Italy
16.00	<i>COFFEE BREAK</i>	
16.30	In-field activities: observation and description of presumptive colonies in selective media	<i>All participants involved</i>
17.00	Participants' feedbacks on the activities carried out during the day	<i>All tutors</i>
17.15	Conclusions and closure of the first day	<b>Siegfried KHAISEB,</b> CVL, Namibia <b>Marina TORRESI,</b> WOAH CC FH/ IZS-Teramo, Italy

## 18 October 2022

TIME	TOPIC	PERSON IN CHARGE
09.00	<i>Salmonella</i> spp.: general overview	<b>Charles NTAHONSHIKIRA</b> , UNAM, Namibia
09:30	Conventional isolation methods: detection of <i>Salmonella</i> spp. according to ISO 6579:2017	<b>Andrea VANNUCCINI</b> , IZS PLV, Italy
10.30	Discussion	<i>All participants involved</i>
11.00	<i>COFFEE BREAK</i>	
11.30	Serotypes and Importance of Serotyping <i>Salmonella</i> spp.	<b>Renatus SHILANGALE</b> , CVL, Namibia
12:00	<i>Salmonella</i> spp. serotyping according to Mueller Kauffmann White Scheme	<b>Renatus SHILANGALE</b> , CVL, Namibia
13.00	<i>LUNCH</i>	
14:00	In-field activities: observation and description of presumptive colonies in selective media	<i>All Tutors</i>
16.00	<i>COFFEE BREAK</i>	
16.30	Participants' feedbacks on the activities carried out during the day	<i>All Tutors</i>
17.00	Conclusions and closure of the second day	<b>Siegfried KHAISEB</b> , CVL, Namibia <b>Marina TORRESI</b> , WOAH CC FH/ IZS-Teramo, Italy

19 October 2022

TIME	TOPIC	PERSON IN CHARGE
09:00	<i>Klebsiella pneumoniae</i> general overview	<b>Alessandra CORNACCHIA</b> , WOAH CC FH/ IZS-Teramo, Italy
09:30	Detection of <i>Klebsiella pneumoniae</i> from foods, animals and environmental samples	<b>Alessandra CORNACCHIA</b> , WOAH CC FH/ IZS-Teramo, Italy
10:30	In-field activities: observation and description of presumptive colonies in selective media	<i>All Tutors</i>
11.00	<i>COFFEE BREAK</i>	
11.30	Antimicrobial resistance of ESKAPE pathogens: occurrence factors and general concepts	<b>Alessandra CORNACCHIA</b> , WOAH CC FH/ IZS-Teramo, Italy
13.00	<i>LUNCH</i>	
14.00	Antimicrobial susceptibility testing of <i>Klebsiella pneumoniae</i>	<b>Alessandra CORNACCHIA</b> , WOAH CC FH/ IZS-Teramo, Italy
15:00	In-field activities (laboratory of CVL)	<i>All participants</i>
16.00	<i>COFFEE BREAK</i>	
16.30	Participants' feedbacks on the activities carried out during the day and discussion	<i>All participants</i>
17.00	Conclusion and closure of the third day	<b>Siegfried KHAISEB</b> , CVL, Namibia <b>Marina TORRESI</b> , WOAH CC FH/ IZS-Teramo, Italy

20 October 2022

TIME	TOPIC	PERSON IN CHARGE
09.00	Genomic characterization of <i>Listeria monocytogenes</i>	<b>Gabriella CENTOROTOLA</b> , WOAH CC FH/ IZS-Teramo, Italy
10:00	Genomic characterization of <i>Klebsiella pneumoniae</i>	<b>Alessandra CORNACCHIA</b> , WOAH CC FH/ IZS-Teramo, Italy
11.00	<i>COFFEE BREAK</i>	
11.30	<i>Listeria monocytogenes</i> : Italian and Namibian experiences during Listeriosis outbreaks	<b>Yvonne HEMBERGER</b> , UNAM, Namibia <b>Marina TORRESI</b> , WOAH CC FH/ IZS-Teramo, Italy
13.00	<i>LUNCH BREAK</i>	
14.00	In-field activities: in silico-analysis	<i>All Tutors</i>
15.30	<i>COFFEE BREAK</i>	
16:00	Learning evaluation	<i>All participants</i>
17.00	Conclusions and closure of the working group session	<b>Siegfried KHAISEB</b> , CVL, Namibia <b>Marina TORRESI</b> , WOAH CC FH/ IZS-Teramo, Italy

## 21 October 2022

TIME	TOPIC	PERSON IN CHARGE
09.00	ERFAN Food Hygiene working group (WG) workshop: status of art of the WG Road map defined during the Windhoek meeting in September 2019 and definition 2022-2024 Road map	<i>All participants</i>
10.30	<i>COFFEE BREAK</i>	
11.00	Food Hygiene Working group Final discussion	<i>All participants</i>
12.00	Conclusion and closure of the event	<b>Siegfried KHAISEB</b> , CVL Windhoek <b>Marina TORRESI</b> , WOAH CC FH/ IZS-Teramo, Italy

## TUTORS

**Andrea VANNUCCINI**, Food Safety Department, IZS PLV, Italy;

**Gabriella CENTOROTOLA**, Food Safety Department, WOAH CC FH, IZSTE, Italy;

**Alessandra CORNACCHIA**, Food Safety Department, WOAH CC FH, IZSTE, Italy;

**Yvonne HEMBERGER**, UNAM, Namibia;

**Siegfried KHAISEB**, Head of CVL Windhoek, Namibia;

**Charles NTAHONSHIKIRA**, UNAM, Namibia;

**Marina TORRESI**, Food Safety Department, WOAH CC FH, IZSTE, Italy;

**Renatus SHILANGALE**, CVL, Namibia.



## PARTICIPANTS

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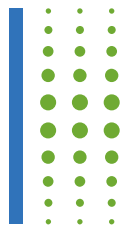
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