

# WOAH Reference Laboratory Reports Activities 2023

## Activities in 2023

This report has been submitted : 25 juin 2024 17:15

### Laboratory Information

<b>Name of disease (or topic) for which you are a designated WOAHO Reference Laboratory:</b>	Enzootic abortion of ewes (Ovine chlamydiosis)
<b>Address of laboratory:</b>	Naumburger Str. 96a 07743 Jena
<b>Tel.:</b>	+49-3641 804 2435
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<b>Name (including Title) of Head of Laboratory (Responsible Official):</b>	Prof. Christian Menge (Head of Institute)
<b>Name (including Title and Position) of WOAHO Reference Expert:</b>	Dr. Christiane Schnee (Head of Laboratory)
<b>Which of the following defines your laboratory? Check all that apply:</b>	Governmental

### TOR1: DIAGNOSTIC METHODS

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.?  
(Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in WOAHO Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
<b>Indirect diagnostic tests</b>			
Screening ELISA		144	0
C. abortus specific ELISA		120	0
<b>Direct diagnostic tests</b>			
Real-Time PCR Family Chlamydiaceae		208	0
Real-Time PCR Chlamydia abortus		50	0
Real-Time PCR Chlamydia suis		54	0
Isolation (cell culture)		5	0

### TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAHO?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAHO Members?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOAHO MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Chromosomal DNA of Chlamydia reference	PCR, Real- Time PCR	produced	1x50 µl	4x100 µl	2	ARGENTINA, ITALY,

strains

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAHO Members?

No

### TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

No

7. Did your laboratory validate diagnostic methods according to WOAHO Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOAHO Standards for the designated pathogen or disease?

No

### TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAHO Members?

No

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAHO Member?

Yes

NAME OF THE WOAHO MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
PORTUGAL	Use of WOAHO methods for diagnosis of Enzootic abortion of ewes, serology, serum standards	Remote assistance by email

### TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAHO Members other than the own?

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAHO MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
PCR comparison for the detection of Chlamydia abortus	2 years	Testing different commercial and in house PCR assay to give recommendations for a sensitive and specific molecular detection of the agent	ANSES Maisons-Alfort; University of Zurich; Moredun Research Institute	FRANCE SWITZERLAND UNITED KINGDOM

13. In exercising your activities, have you identified any regulatory research needs\* relevant for WOAHO?

Yes

#### Research need : 1

**Please type the Research need:** The question has arisen as to whether Chlamydia abortus is also shed in ewe's and goat's milk, or whether milk can be contaminated by the agent, so that raw milk products could pose a risk to the consumer. Further, it would be interesting to investigate whether the pathogens can multiply in this matrix,

**Relevance for WOAHO Disease Control,**

**Relevance for the Codes or Manual Manual,**

**Field Epidemiology and Surveillance,**

**Animal Category Terrestrial,**

**Disease:**

Enzootic abortion of ewes (ovine chlamydiosis)

**Kind of disease (Zoonosis, Transboundary diseases)** Zoonosis,

**If any, please specify relevance for Codes or Manual, chapter and title**

(e.g. Terrestrial Manual Chapter 2.3.5 - Minimum requirements for aseptic production in vaccine manufacture)

*Answer:* Terrestrial Manual Chapter 3.8.5 Enzootic abortion of ewes

**Notes:**

*Answer:*

**Research need : 2**

**Please type the Research need:** Serology for EAE is a well-established tool, particularly for monitoring and controlling the introduction of new animals into a herd or country. However, the different specificities of the available ELISA tests are sometimes not known or are not taken into account. For example, import regulations in various countries require the freedom from chlamydia antibodies without differentiation of the chlamydia species. Because other chlamydiae, which are not clinically relevant in small ruminants, are endemic in many countries, this often leads to unnecessary exclusions. Further, serological DIVA tests do not exist but are needed to distinguish vaccinated and infected animals.

**Relevance for WOA** Disease Control,

**Relevance for the Codes or Manual** Manual,

**Field** Epidemiology and Surveillance, Diagnostics,

**Animal Category** Terrestrial,

**Disease:**

Enzootic abortion of ewes (ovine chlamydiosis)

**Kind of disease (Zoonosis, Transboundary diseases)** Transboundary diseases,

**If any, please specify relevance for Codes or Manual, chapter and title**

(e.g. Terrestrial Manual Chapter 2.3.5 - Minimum requirements for aseptic production in vaccine manufacture)

*Answer:* Terrestrial Manual Chapter 3.8.5 Enzootic abortion of ewes

**Notes:**

*Answer:*

**TOR6: EPIZOOLOGICAL DATA**

14. Did your Laboratory collect epidemiological data relevant to international disease control?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:

South american camels in European flocks often suffer from abortions and birth of weak offspring. Chlamydia are assumed to be a possible etiologigal agent. Therefore the screening of alpaca and llama flocks for the presence of Chlamydia spp. and Chlamydia abortus in fecal samples, vaginal swabs, placenta tissue and blood was continued.

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:

Our reference laboratory receives samples for confirmatory or differential diagnosis of sheep and goat abortions from regional state laboratories. Results are reported to the regional authorities and also to the central German Animal Disease Information System (TSN).

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

0

b) International conferences:

2

Schnee, C., Ulrich, K., Bartl, E.M., Menge, C., Wagner, H. *The occurrence of chlamydiae in German holdings of South American camelids*. 19. Deutscher Chlamydienworkshop, Düsseldorf, Germany, 2023 (poster and flash talk)

Schnee, C., Ulrich, K., Bartl, E.M., Menge, C., Wagner, H. *The occurrence of chlamydiae in German holdings of South American camelids and the detection of a new chlamydial agent*. EMAC-6 (European Meeting of Animal Chlamydiosis & Zoonoses), Edinburgh, UK, 2023 (presentation)

c) National conferences:

1

Schnee, C., Ulrich, K., Bartl, E.M., Menge, C., Wagner, H. *The occurrence of chlamydiae in German holdings of South American camelids*. Meeting of the German Veterinary Society, Berlin, Germany, 2023 (poster and flash talk)

d) Other (Provide website address or link to appropriate information):

0

## TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAHA Members?

Yes

a) Technical visit : 1

b) Seminars : 0

c) Hands-on training courses: 0

d) Internships (&gt;1 month) 0

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
A	GREECE	1

## TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO17025	PDF	Akkreditierungsurkunde_FLI_Riems-Jena-20122.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
PCR and real-time PCR Chlamydiaceae	DAkKS Deutsche Akkreditierungsstelle
Real-time PCR Chlamydia spp.	DAkKS Deutsche Akkreditierungsstelle
Isolation and culture Chlamydia spp.	DAkKS Deutsche Akkreditierungsstelle
Screening and C. abortus ELISA	DAkKS Deutsche Akkreditierungsstelle

20. Does your laboratory maintain a "biorisk management system" for the pathogen and the disease concerned?

Yes

- Risk assesment for Chlamydia agents with regular updates - Appropriate risk control measures (biosafety and biosecurity) are installed - A biological safety officer is

appointed - Regular inspection of the laboratories by national authorities

## TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOA?H?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOA?H?

No

## TOR10: NETWORK WITH WOA?H REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOA?H Reference Laboratories designated for the same pathogen or disease?

Yes

24. Do you network (collaborate or share information) with other WOA?H Reference Laboratories designated for the same pathogen?

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOA?H REF. LABS
Enzootic abortion of ewes	participant	3	Anses Maisons-Alfort, IVPZ Zurich, FLI Jena

25. Did you organise or participate in inter-laboratory proficiency tests with WOA?H Reference Laboratories designated for the same pathogen?

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOA?H REF. LABS/ ORGANISING WOA?H REF. LAB.
Proficiency of Real-time PCR for Chlamydiaceae, C. abortus, C. pecorum	participant	17	ANSES, France

26. Did your laboratory collaborate with other WOA?H Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Yes

TITLE OF THE PROJECT OR CONTRACT	SCOPE	NAME(S) OF RELEVANT WOA?H REFERENCE LABORATORIES
PCR comparison for the detection of Chlamydia abortus	Testing different commercial and in house PCR assay to give recommendations for a sensitive and specific molecular detection of the agent	Anses Maisons-Alfort, IVPZ Zurich, FLI Jena

## TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOA?H Reference Laboratories for the same pathogen?

No

## TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOA?H?

No

29. Additional comments regarding your report:

No