WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 25 avril 2024 12:15

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Cysticercosis
Address of laboratory:	Xujiaping 1,yanchangpu,Lanzhou
Tel.:	+86-931 832.39.78
E-mail address:	luoxuenong@caas.cn
Website:	
Name (including Title) of Head of Laboratory (Responsible Official):	Professor Xuenong Luo
Name (including Title and Position) of WOAH Reference Expert:	Xuenong Luo
Which of the following defines your laboratory? Check all that apply:	Academic institution

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 WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
Antibody ELISA		20	0
Antigen ELISA		18	0
Direct diagnostic tests		Nationally	Internationally
Microscope		6	0

TOR2: REFERENCE MATERIAL

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

No

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

No

4. Did your laboratory produce vaccines?

Yes

5. Did your laboratory supply vaccines to WOAH Members?

No

TOR3: NEW PROCEDURES

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

Yes

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

Yes

NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
CRISP/cas9 based on miR-let7	It will be publishend in the FASEB Journal.
multiple PCR	The website of China National Intellectual Property Administration.

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

Yes

NAME OF THE NEW VACCINE DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
TSOL18 nanovaccine	under research

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

No

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

No

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

No

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

No

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:
As measured by antigen detection in stool with the copro-Ag-ELISA, human taeniasis prevalence ranges from 1.5% to 23.4% across settings. Seroprevalence based on antibodies against T. solium tapeworm ranges from 2.3% to 2.9% (Holt et al., 2016). Stool examination-based surveys have reported 9.7% prevalence. Porcine cysticercosis (sero) prevalence by antibody-based measurement range from 3.2% to 76%,while measurement of antigen range from 4.7% to 59% seroprevalence. Prevalence at necropsy or meat inspection (including retrospective review of records) ranges from 3.94% to 29.10%.

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:
The epidemiological data collected have been disseminated by project proposal, postgraduates thesis and academic reports, etc.in China.

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:

3

1. Establishment and application of a rolling circle amplification method based on novel-miR1 for detection of Cysticercus pisiformis infection in rabbit. Chinese Journal of

Parasitology and Parasitic Diseases ,2023,6 (in Chineses).
2. Global profiling of miRNA and protein expression patterns in rabbit peritoneal macrophages treated with exosomes derived from Taenia pisiformis cysticercus. Genomics. 2023 Sep;115(5):110690.
3. Cysticercus pisiformis-derived novel-miR1 targets TLR2 to inhibit the immune response in rabbits. Front Immunol. 2023 Jul 25;14:1201455.

b) International conferences:

0

c) National conferences:

3
Epidemiology and hazards of cysticercosis has been disseminated in all of conferences associated with veterinary parasite diseases in China.

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

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO17025	Centre for Diagnosis and Testing, Lanzhou Veterinary Research Institute	CANAS认可证书-英文.jpg

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Microscope test	China National accreditation Service for conformity and Assessment
Serological test	China National accreditation Service for conformity and Assessment

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

Yes

According to the CANS requirements, we had established Biosafety control procedures and standard operating procedure (SOP), all the activities were strictly carried out in our lab based on the the procedures.

TOR9: SCIENTIFIC MEETINGS

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

No

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

No

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

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

Not applicable (only WOAH Reference Laboratory designated for the disease

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

Not applicable (Only WOAH Reference Laboratory designated for the disease)

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

Not applicable (Only WOAH Reference Laboratory designated for the disease)

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

Not applicable (Only WOAH Reference Laboratory designated for the disease)

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

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

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the Test	WOAH Member Countries
specify the test and Validation of a diagnostic proficiency	Organizer	3	Serological test	CHINA (PEOPLE'S REP. OF),

TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
review of WOAH Standards	China	Suggestions for Mannual and Standards of WOAH about cysticercosis

29. Additional comments regarding your report:

Yes

With the improvement of people's living standards and eating habits, Cysticercosis cases had changed less and less, so research on Cysticercosis faces with shortage of worms. At present, there is only reference lab for cysticercosis in the world. All of above mentioned great limites development of T.solium investigation. As a result, there was little activity in the annual report.