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: | Xuijiaping 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

<table>
<thead>
<tr>
<th>Diagnostic Test</th>
<th>Indicated in WOAH Manual (Yes/No)</th>
<th>Total number of test performed last year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect diagnostic tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antibody ELISA</td>
<td>Yes</td>
<td>20</td>
</tr>
<tr>
<td>Antigen ELISA</td>
<td>Yes</td>
<td>18</td>
</tr>
<tr>
<td>Direct diagnostic tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microscope</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

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

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

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

<table>
<thead>
<tr>
<th>NAME OF THE NEW VACCINE DEVELOPED</th>
<th>DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSOL18 nanovaccine</td>
<td>under research</td>
</tr>
</tbody>
</table>

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


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

<table>
<thead>
<tr>
<th>Quality management system adopted</th>
<th>Certificate scan (PDF, JPG, PNG format)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO17025</td>
<td>Centre for Diagnosis and Testing, Lanzhou Veterinary Research Institute</td>
</tr>
</tbody>
</table>

19. Is your quality management system accredited?
Yes

<table>
<thead>
<tr>
<th>Test for which your laboratory is accredited</th>
<th>Accreditation body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microscope test</td>
<td>China National accreditation Service for conformity and Assessment</td>
</tr>
<tr>
<td>Serological test</td>
<td>China National accreditation Service for conformity and Assessment</td>
</tr>
</tbody>
</table>

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?

WOAH Reference Laboratory Reports Activities 2023
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

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

**TOR12: EXPERT CONSULTANTS**

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

Yes

<table>
<thead>
<tr>
<th>KIND OF CONSULTANCY</th>
<th>Location</th>
<th>SUBJECT (FACULTATIVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>review of WOAH Standards</td>
<td>China</td>
<td>Suggestions for Manual and Standards of WOAH about cysticercosis</td>
</tr>
</tbody>
</table>

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 limits development of T.solium investigation. As a result, there was little activity in the annual report.