WOAH Reference Laboratory Reports Activities 2023
Activities in 2023
This report has been submitted: 10 juin 2024 19:01

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:
mammalian tuberculosis

Address of laboratory:
Laboratoire National de Référence Tuberculose, Unité Zoonoses Bactériennes, Laboratoire de Santé Animale de Maisons-Alfort, ANSES 14, rue Pierre et Marie Curie, 94701 Maisons-Alfort Cedex France

Tel:
+330149771350

E-mail address:
Maria-laura.boschiroli@anses.fr

Website:
https://www.anses.fr/fr

Name (including Title) of Head of Laboratory (Responsible Official):
Dr. Stéphan ZIENTARA, Head of the Animal Health Laboratory, Anses, Maisons-Alfort

Name (including Title and Position) of WOAH Reference Expert:
Dr. María Laura Boschiroli-Cara, Research Director, Head of the Tuberculosis National Reference Laboratory

Which of the following defines your laboratory? Check all that apply:
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

<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>Serology (Suidae)</td>
<td>Yes</td>
<td>23</td>
</tr>
<tr>
<td>IGRA (IFNg test)</td>
<td>Yes</td>
<td>40</td>
</tr>
<tr>
<td>Tuberculin batch control</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Direct diagnostic tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Culture</td>
<td>Yes</td>
<td>350</td>
</tr>
<tr>
<td>Mycobacterium strain identification</td>
<td>Yes</td>
<td>515</td>
</tr>
<tr>
<td>Soligotyping</td>
<td>Yes</td>
<td>60</td>
</tr>
<tr>
<td>MLVA</td>
<td>Yes</td>
<td>216</td>
</tr>
<tr>
<td>Whole genome sequencing</td>
<td>Yes</td>
<td>384</td>
</tr>
<tr>
<td>Molecular diagnosis</td>
<td>Yes</td>
<td>1233</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 (non-WOAH-approved) and/or other diagnostic reagents to WOAH Members?
Yes
### 4. Did your laboratory produce vaccines?
No

### 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?
No

7. Did your laboratory validate diagnostic methods according to WOAH 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 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?
Yes

<table>
<thead>
<tr>
<th>NAME OF THE WOAH MEMBER</th>
<th>PURPOSE</th>
<th>HOW THE ADVICE WAS PROVIDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOROCCO</td>
<td>TB diagnostics (direct-indirect) and genotyping</td>
<td>Advice expertise (SOP)</td>
</tr>
<tr>
<td>MADAGASCAR</td>
<td>TB diagnostics (direct-indirect)</td>
<td>Advice expertise (SOP)</td>
</tr>
<tr>
<td>GERMANY</td>
<td>TB diagnostics (indirect)</td>
<td>Advice expertise (SOP)</td>
</tr>
<tr>
<td>PORTUGAL</td>
<td>TB diagnostics (direct-indirect)</td>
<td>Advice expertise (SOP)</td>
</tr>
<tr>
<td>BRAZIL</td>
<td>BSL3 disinfection procedure</td>
<td>Advice expertise (SOP)</td>
</tr>
<tr>
<td>UNITED KINGDOM</td>
<td>TB diagnostics (direct-indirect)</td>
<td>Advice expertise (SOP)</td>
</tr>
<tr>
<td>BELGIUM</td>
<td>TB diagnostics (indirect)</td>
<td>Advice expertise</td>
</tr>
</tbody>
</table>

### 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?
Yes

*Research need: 1*
**Please type the Research need:**

- Creation of new standards with regards indirect diagnostic tests: absence of standards with regards TB serology or IGRA.
- Validation of synthetic tuberculins at a global scale (different epidemiological and breeding contexts).

**Relevance for WOAH Disease Control, Standard Setting, Facilitation of international collaboration,**

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

**Field**
- Epidemiology and Surveillance, Diagnostics,

**Animal Category**
- Terrestrial,

**Disease:**
- Mammalian tuberculosis

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

**Notes:**

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**TOR6: EPIZOZOLOGICAL 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:**

- Second line analyses confirming TB outbreaks in different wild or domestic-livestock species. Genotypic characterisation of TB causative agents.

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:**


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:

9


b) International conferences:

3


Boschiroli, M. L., "It's not always Mycobacterium bovis! Other Mycobacteria and their relevance in the veterinary field." World Tuberculosis Day -WEBINAR European Association of Veterinary Laboratory Diagnosticians (EAVLD), 24/03/23

c) National conferences:

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

2


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>ISO 17025</td>
<td>Portée détaillée v.46 de l’attestation N° 1-2246</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>PCR</td>
<td>COFRAC</td>
</tr>
<tr>
<td>Bacteriology</td>
<td>COFRAC</td>
</tr>
</tbody>
</table>

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20. Does your laboratory maintain a “biorisk management system” for the pathogen and the disease concerned?
Yes
A biorisk department is in place in our institution. Our lab follows the guidelines laid out by the local biorisk manager, which in turn are based on WHO’s Laboratory biosafety guidelines and those for “highly dangerous pathogens” issued from French regulations.

**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?
Yes

<table>
<thead>
<tr>
<th>Title of event</th>
<th>Date (mm/yy)</th>
<th>Location</th>
<th>Role (speaker, presenting poster, short communications)</th>
<th>Title of the work presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>MASTERCLASS TB, L’initiative, Expertise France</td>
<td>2023-12-04</td>
<td>Yaoundé, Cameroon</td>
<td>speaker, member of the teaching staff</td>
<td>Tuberculose zoonotique</td>
</tr>
</tbody>
</table>

**TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES**

23. Did your laboratory exchange information with other WOAH Reference Laboratories designated for the same pathogen or disease?
Yes
24. Do you network (collaborate or share information) with other WOAH Reference Laboratories designated for the same pathogen?
No
25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen?
Yes

<table>
<thead>
<tr>
<th>PURPOSE OF THE PROFICIENCY TESTS: 1</th>
<th>ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/PARTICIPANT)</th>
<th>NO. PARTICIPANTS</th>
<th>PARTICIPATING WOAH REF. LABS/ ORGANISING WOAH REF. LAB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular characterization of MTBC</td>
<td>participant</td>
<td>unknown</td>
<td>Europe</td>
</tr>
<tr>
<td>Bacteriology and PCR</td>
<td>organiser</td>
<td>19</td>
<td>Europe</td>
</tr>
<tr>
<td>Bacteriology and PCR</td>
<td>organise</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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?
Yes

<table>
<thead>
<tr>
<th>TITLE OF THE PROJECT OR CONTRACT</th>
<th>SCOPE</th>
<th>NAME(S) OF RELEVANT WOAH REFERENCE LABORATORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIE Project to Replace the International Standard for Avian and Bovine Tuberculin (ISBT)</td>
<td>Evaluate, calibrate and validate a replacement for the International Standard for Bovine (ISBT) and Avian (ISAT) Tuberculin</td>
<td>Argentina, United Kingdom, Spain, United States</td>
</tr>
</tbody>
</table>

**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 comparisons1</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>Bacteriology and PCR</td>
<td>Organiser</td>
<td>19</td>
<td>Bacteriology and PCR</td>
<td>FRANCE,</td>
</tr>
</tbody>
</table>

**TOR12: EXPERT CONSULTANTS**

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

WOAH Reference Laboratory Reports Activities 2023
<table>
<thead>
<tr>
<th>KIND OF CONSULTANCY</th>
<th>Location</th>
<th>SUBJECT (FACULTATIVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ad hoc Group meetings for ISAT and ISBT replacement</td>
<td>WOAH headquarters</td>
<td>-</td>
</tr>
</tbody>
</table>

29. Additional comments regarding your report:

No

No comments