WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 24 avril 2023 17:31

Laboratory Information

| Name of disease (or topic) for which you are a designated WOAH Reference Laboratory: | African horse sickness |
| Address of laboratory: | The Pirbright Institute, Ash Road, Pirbright, Woking, Surrey, UK, GU24 0NF |
| Tel.: | +441483231344 |
| E-mail address: | carrie.batten@pirbright.ac.uk |
| Website: | https://www.pirbright.ac.uk/our-science/vector-borne-viral-diseases/non-vesicular-disease-reference-laboratory |
| Name (including Title) of Head of Laboratory (Responsible Official): | Prof Bryan Charleston, Institute Director |
| Name (including Title and Position) of WOAH Reference Expert: | Dr Carrie Batten, Head of the non vesicular reference laboratories |
| Which of the following defines your laboratory? Check all that apply: | Research Institute |

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>ELISA</td>
<td>Yes</td>
<td>506</td>
</tr>
<tr>
<td>Direct diagnostic tests</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WOAH Reference Laboratory Reports Activities 2022
Real-time RT-PCR | Yes | 0 | 83
Virus Isolation | Yes | 0 | 1

**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?
   Yes

<table>
<thead>
<tr>
<th>TYPE OF REAGENT AVAILABLE</th>
<th>RELATED DIAGNOSTIC TEST</th>
<th>PRODUCED/ PROVIDE</th>
<th>AMOUNT SUPPLIED NATIONALLY (ML, MG)</th>
<th>AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)</th>
<th>NO. OF RECIPIENT WOAH MEMBER COUNTRIES</th>
<th>COUNTRY OF RECIPIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS9 nucleic acid</td>
<td>PCR</td>
<td>Provide</td>
<td>0</td>
<td>100ul</td>
<td>1</td>
<td>Asia and Pacific</td>
</tr>
<tr>
<td>AHS1, 3 and 4 antiserum</td>
<td>ELISA/SNT</td>
<td>Provide</td>
<td>0</td>
<td>3 x 1ml</td>
<td>1</td>
<td>Asia and Pacific</td>
</tr>
<tr>
<td>AHS1, 2, 3, 4, 5, 6, 7, 8 and 9 antiserum</td>
<td>ELISA/SNT</td>
<td>Provide</td>
<td>0</td>
<td>9 x 2ml</td>
<td>1</td>
<td>Europe</td>
</tr>
<tr>
<td>AHS1 and 9 nucleic acid</td>
<td>PCR</td>
<td>Provide</td>
<td>0</td>
<td>2 x 200ul</td>
<td>1</td>
<td>America</td>
</tr>
</tbody>
</table>

4. Did your laboratory produce vaccines?
   Not applicable

5. Did your laboratory supply vaccines to WOAH Members?
   Not applicable

**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?
    Yes
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 COUNTRY RECEIVING A TECHNICAL CONSULTANCY</th>
<th>PURPOSE</th>
<th>HOW THE ADVICE WAS PROVIDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>KENYA</td>
<td>Diagnostic tests</td>
<td>Email</td>
</tr>
<tr>
<td>SUDAN</td>
<td>Surveillance and testing methods</td>
<td>Email</td>
</tr>
<tr>
<td>MAURITIUS</td>
<td>Availability of diagnostic testing labs</td>
<td>Email</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

**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 part of an ongoing orbivirus project we have been sequencing AHSV strains (including the recent Kenyan submission) which will be added to relevant databases once analysed

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:**

see below

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:
b) International conferences:

1

Developing an xMAP multiplex assay for the rapid and simultaneous detection of AHSV serotypes 1-9: 14th Epizone annual meeting (May 2022), Barcelona

c) National conferences:

1

Developing an xMAP multiplex assay for the rapid and simultaneous detection of AHSV serotypes 1-9
The Microbiology Society Annual Conference 2022, Belfast 4 April– 7 April

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 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>
</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>Real-time RT-PCR (Agüero et al)</td>
<td>UKAS</td>
</tr>
<tr>
<td>Real-time RT-PCR (Guthrie et al)</td>
<td>UKAS</td>
</tr>
<tr>
<td>ELISA</td>
<td>UKAS</td>
</tr>
</tbody>
</table>

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

Yes

The institute works to reduce biorisk across all areas of its work

**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?
No

24. Are you a member of a network of 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</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>Harmonisation of diagnostic tests for AHSV</td>
<td>Participant</td>
<td>44</td>
<td>Organiser- Spain, Participant OVI South Africa</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?
No

**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>Region(s) of participating WOAH Member Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmonisation of diagnostic tests for AHSV</td>
<td>Participant</td>
<td>44</td>
<td>Africa America Asia and Pacific Europe MiddleEast</td>
</tr>
</tbody>
</table>

**TOR12: EXPERT CONSULTANTS**

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

29. Additional comments regarding your report:

Yes

*There has been little AHSV activity outside of Africa this year, hence the low level of diagnostic submissions. We continue to take enquiries for reagents, which we supply as soon as all import permits etc are in place. Additionally the Pirbright Institute holds a large collection of AHSV isolates which it makes available on request.*

*Dr Batten has continued to interact with the Biological standards commission via email regarding the export of horses from South Africa via Mauritius.*

*The Pirbright has active orbivirus and entomological research groups, who regularly publish in high impact journals, this information is directly relevant to aspects of AHSV control.*

*The 2022 PT was provided in December 2022 and therefore results/reports will be communicated to Pirbright in 2023.*