

# WOAH Reference Laboratory Reports Activities 2024

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## LABORATORY INFORMATION

<b>*Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:</b>	African horse sickness
<b>*Address of laboratory:</b>	The Pirbright Institute, Ash Road, Woking, GU24 0NF
<b>*Tel:</b>	+44-1483 23 24 41
<b>*E-mail address:</b>	carrie.batten@pirbright.ac.uk
<b>Website:</b>	<a href="https://www.pirbright.ac.uk/">https://www.pirbright.ac.uk/</a>
<b>*Name (including Title) of Head of Laboratory (Responsible Official):</b>	Prof Bryan Charleston, Institute Director
<b>*Name (including Title and Position) of WOAH Reference Expert:</b>	Dr Carrie Batten, Head of Non Vesicular Reference laboratories
<b>*Which of the following defines your laboratory? Check all that apply:</b>	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

Diagnostic Test	Indicated in WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
ELISA	Yes	516	122
Direct diagnostic tests		Nationally	Internationally
Real Time RT-PCR Aguero et al	Yes	8	367
Real Time RT-PCR Guthrie et al	Yes	8	231

## TOR2: REFERENCE MATERIAL

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

No

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

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient WOA Member Countries	Country of recipients
AHSV-1 nucleic acid	Real-Time RT-PCR	provide	0	100ul	1	IRELAND,
AHSV ref strains 1-9	reference material	prvide	1ml of each	0	1	UNITED KINGDOM,

4. Did your laboratory produce vaccines?

Not applicable

5. Did your laboratory supply vaccines to WOA 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 WOA 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 WOA Standards for the designated pathogen or disease?

No

## TOR4: DIAGNOSTIC TESTING FACILITIES

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

Yes

Name of WOA Member Country seeking assistance	Date	Which diagnostic test used	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses
ISRAEL	2024-08-07	PCR and ELISA	6	0

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

Yes

Name of the WOA Member Country receiving a technical	Purpose
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consultancy		How the advice was provided
AUSTRALIA	Discussion re research collaborations	email

## TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

No

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

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:

We are in the process of pulling together AHSV genome data for publication.

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

No

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:

1

Martin Ashby, Rebecca Moore, Simon King, Kerry Newbrook, John Flannery and Carrie Batten. Development of a microsphere-based multiplex assay for the detection and differentiation of African horse sickness virus serotypes 1-9. *Microorganisms* 2024, 12, 932. <https://doi.org/10.3390/microorganisms12050932>

b) International conferences:

0

c) National conferences:

0

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 WOA H 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)	
UKAS (United Kingdom Accreditation Board)	UKAS accreditation cert	UKAS accreditation for Pirbright 2024.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Real-time RT-PCR (Aguero et al)	UKAS
Real-time RT-PCR (Guthrie et al)	UKAS
ELISA	UKAS
Virus Isolation	UKAS

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

Yes

All our management systems are built around UK legislation, some is based on WHO and WOA H, but not directly translatable as it's updated into UK law before it's applied. All facilities have their operational risk assessment and specific activity risk assessments where required. We have a process in place for reporting incidents relating to biorisk, including an investigation process and lessons learned. There is also an inspection and audit programme which monitors compliance with Biorisk related legislation including SAPO, COSHH (where it relates to human pathogens), and GM (contained use). We are inspected by the HSE as part of a proactive intervention plan, where parts of our biorisk management system are scrutinised and sampled to check compliance and we are also visited and inspected by the National Counter Terrorism Security Office (NaCTSO) to ensure any 'dual-use' materials are being held securely.

## 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

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

Yes

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

No

25. Did you organise or participate in inter-laboratory proficiency tests with WOA Reference Laboratories designated for the same pathogen during the past 2 years?

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOA Ref. Labs/ organising WOA Ref Lab
Harmonisation of diagnostic methods	Participant	44	LCV, Spain and OVI-ARC, South Africa

26. Did your laboratory collaborate with other WOA 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 WOA Reference Laboratories for the same pathogen during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons <sup>1</sup>	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Harmonization of diagnostic tests	Participant	44	ELISA Real-time RT-PCR	AUSTRIA, BELGIUM, BULGARIA, CANADA, CROATIA, CYPRUS, CZECH REPUBLIC, DENMARK, FINLAND, FRANCE, GERMANY, GREECE, HUNGARY, INDIA, IRELAND, ITALY, LATVIA, LITHUANIA, MALAYSIA, MALTA, MEXICO, MOROCCO, POLAND, PORTUGAL, ROMANIA, SERBIA, SLOVAKIA, SLOVENIA, SOUTH AFRICA, SPAIN, SWEDEN, SWITZERLAND, THAILAND, THE NETHERLANDS, TUNISIA, TURKEY, UNITED ARAB EMIRATES, UNITED KINGDOM,

## TOR12: EXPERT CONSULTANTS

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

No

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.*

*We have been discussing with the WOA ref lab in Spain potential changes to the real-time RT-PCR assays. Internally we have reviewed our AHSV serotyping real-time RT-PCR assays to ensure they detect all known circulating strains.*

*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.*

*We continue to make our large collection of orbiviruses and related reagents available on request.*

*For question 27 some countries had more than one laboratory participate.*