

OIE Reference Laboratory Reports Activities

Activities in 2020

This report has been submitted : 2021-01-15 12:30:13

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	African horse sickness
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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):	Dr Bryan Charleston
Name (including Title and Position) of OIE Reference Expert:	Dr Simon Carpenter, Head of Entomology
Which of the following defines your laboratory? Check all that apply:	Research

ToR 1: To use, promote and disseminate diagnostic methods validated according to OIE Standards

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 OIE Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
ELISA	Yes	193	30
SNT	Yes	0	4
Direct diagnostic tests			
Real-Time RT-PCR	Yes	0	51
Virus Isolation	Yes	0	3

**ToR 2: To develop reference material in accordance with OIE requirements, and implement and promote the application of OIE Standards.
To store and distribute to national laboratories biological reference products and any other reagents used in the diagnosis and control of the designated pathogens or disease.**

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

No

3. Did your laboratory supply standard reference reagents (non OIE-approved) and/or other diagnostic reagents to OIE Member Countries?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient OIE Member Countries	Region of recipients
AHSV-9 RNA	PCR	Provide	0	100ul	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
AHSV-1 RNA	PCR	Provide	0	100ul	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
AHSV ANTISERA 1-9	ELISA	Provide	0	54ml	4	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
AHSV-1-9 reference strains	Molecular assays	Provide	0	9ml	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
AHSV/EEV negative antiserum	ELISA	Provide	0	3ml	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
AHSV-1-9 RNAs	Molecular assays	Provide	0	900ul	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to OIE Member Countries?

No

ToR 3: To develop, standardise and validate, according to OIE Standards, new procedures for diagnosis and control of the designated pathogens or diseases

6. Did your laboratory develop new diagnostic methods validated according to OIE Standards for the designated pathogen or disease?

No

7. Did your laboratory develop new vaccines according to OIE Standards for the designated pathogen or disease?

No

ToR 4: To provide diagnostic testing facilities, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries

8. Did your laboratory carry out diagnostic testing for other OIE Member Countries?

Yes

Name of OIE Member Country seeking assistance	Date (month)	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses
CHINA (PEOPLE'S REP. OF)	September	4	0
MALAYSIA	October	0	43
INDIA	June	0	6
THAILAND	March	0	4

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

Yes

Name of the OIE Member Country receiving a technical consultancy	Purpose	How the advice was provided
AUSTRALIA	Test validation and reagents	E mail
ETHIOPIA	Diagnostics, vaccines, surveillance	E mail
CHINA (PEOPLE'S REP. OF)	Test selection, validation and reagents, studies of insect vectors	E mail - Hong Kong
MALAYSIA	Test results, analyses, confirmatory test results	E mail
VIETNAM	Test selection, validation and reagents	E mail
ECUADOR	Clinical diagnosis, sampling and diagnostic testing	E mail
INDIA	Diagnostic testing	E mail

ToR 5: To carry out and/or coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations

10. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than the own?

No

ToR 6: To collect, process, analyse, publish and disseminate epizootiological data relevant to the designated pathogens or diseases

11. Did your Laboratory collect epizootiological data relevant to international disease control?

Yes

If the answer is yes, please provide details of the data collected:
Analysis of the Thailand AHSV-1 outbreak was performed at Pirbright.

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

Yes

If the answer is yes, please provide details of the data collected:
Full genome of AHSV Thailand was published.

**13. What method of dissemination of information is most often used by your laboratory?
(Indicate in the appropriate box the number by category)**

a) Articles published in peer-reviewed journals: 1

King, S., Rajko-Nenow, P., Ashby, M., Frost, L., Carpenter, S. and Batten, C. (2020), Outbreak of African Horse Sickness in Thailand, 2020. Transbound Emerg Dis. Accepted Author Manuscript. doi:10.1111/tbed.13701

b) International conferences: 0

c) National conferences: 0

d) Other:

(Provide website address or link to appropriate information) 1

<https://www.pirbright.ac.uk/publications/outbreak-african-horse-sickness-thailand-2020>

ToR 7: To provide scientific and technical training for personnel from OIE Member Countries

To recommend the prescribed and alternative tests or vaccines as OIE Standards

14. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

No

ToR 8: To maintain a system of quality assurance, biosafety and biosecurity relevant for the pathogen and the disease concerned

15. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
ISO/IEC17025	UKAS cert.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Real-time RT-PCR	UKAS
ELISA	UKAS
Virus isolation	UKAS

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

Yes

(See *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, Chapter 1.1.4*)

ToR 9: To organise and participate in scientific meetings on behalf of the OIE

18. Did your laboratory organise scientific meetings on behalf of the OIE?

No

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
OIE webinar series for AHSV	04/20	remote via video conference	Speakers/Participants	AHSV diagnostics/ vector surveillance and control
AHS coordination meeting for Asia	11/20	remote via video conference	Participant	n/a
Epidemiology of AHSV	06/20	remote via video conference	Speaker/Participants	Culicoides in SE Asia
OIE review of studies of Culicoides in SE Asia	11/20	remote via video conference	Participant	n/a

ToR 10: To establish and maintain a network with other OIE Reference Laboratories

designated for the same pathogen or disease and organise regular inter-laboratory proficiency testing to ensure comparability of results

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

Yes

21. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease by organising or participating in proficiency tests?

Yes

Purpose of the proficiency tests: ¹	Role of your Reference Laboratory (organiser/ participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
Harmonisation of diagnostic tests.	Participant	43	Organising ref lab - Spain Participant - South Africa

¹ validation of a diagnostic protocol: specify the test; quality control of vaccines: specify the vaccine type, etc.

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

No

ToR 11: To organise inter-laboratory proficiency testing with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results

23. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than OIE Reference Laboratories for the same disease?

Yes

Note: See Interlaboratory test comparisons in: Laboratory Proficiency Testing at: <http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing> see point 1.3

Purpose for inter-laboratory test comparisons ¹	No. participating laboratories	Region(s) of participating OIE Member Countries
Harmonisation of diagnostic tests	43	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East

ToR 12: To place expert consultants at the disposal of the OIE

24. Did your laboratory place expert consultants at the disposal of the OIE?

No

25. Additional comments regarding your report:

Due to SARS-Cov-2 pandemic and the related travel restrictions, we could not offer on site or in country training to the South East Asia countries. Technical consultancy was provided throughout the reporting period via email to collaborating laboratories across SE Asia in response to the AHSV incursion.

Samples received from the Peoples Republic of China originated from Hong Kong.