

OIE Reference Laboratory Reports Activities

Activities in 2021

This report has been submitted : 2022-01-13 20:00:31

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Equine influenza
Address of laboratory:	108 Gluck Equine Research Center Lexington, Kentucky 40546-0099 UNITED STATES OF AMERICA
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Name (including Title) of Head of Laboratory (Responsible Official):	Daniel Howe PhD, Chair, Department of Veterinary Science, University of Kentucky
Name (including Title and Position) of OIE Reference Expert:	Thomas M. Chambers, PhD, Professor
Which of the following defines your laboratory? Check all that apply:	Academic

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		Nationally	Internationally
HI (type A influenza, equine H3	yes	3.050	0 (no samples sent to us)
Direct diagnostic tests		Nationally	Internationally
virus isolation in embryonated eggs	yes	5,580	30

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
equine influenza virus isolates	comparative HI and sequencing	83	1	82	3	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" 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?

Yes

Name of the new test or diagnostic method or vaccine developed	Description and References (Publication, website, etc.)
New generation equine influenza bivalent VLP vaccine	research in progress; collaboration with Dr. Maretha O'Kennedy in South Africa

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?

No

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
CANADA	virus isolation and sequencing of samples provided by the member country	email
JAPAN	provision of sequence information	email
COLOMBIA	provision of cDNA corresponding to equine virus isolates	physical shipment, email
UNITED KINGDOM	provision of virus isolates, sequences, comparative HI data	physical shipment, zoom meetings, emails

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?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	OIE Member Countries involved other than your country
Expert Surveillance Panel for equine influenza	ongoing	monitoring of incidence of equine influenza and characterization of viruses	Irish Equine Centre, JRA, others	ARGENTINA CHINA (PEOPLE'S REP. OF) FRANCE GERMANY INDIA INDONESIA IRELAND JAPAN MALAYSIA NIGERIA PAKISTAN SWEDEN UNITED KINGDOM
New generation equine influenza bivalent VLP vaccine	ongoing 2021-23	development of new EIV vaccine	CSIR South Africa, Grayson Jockey Club Research Foundation	SOUTH AFRICA

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:
clinical disease information and vaccination histories of infected horses

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:
2021--collected 136 PCR-positive diagnoses from contacts in 27 states and 2 Canadian provinces, made 64 virus isolations to date

**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: 0

b) International conferences: 1
XI International Equine Infectious Diseases Conference, Sept 2021 by Zoom

c) National conferences: 1
American Association of Equine Practitioners Virtual Wednesday Roundtable, March 2021

d) Other:
(Provide website address or link to appropriate information) 0

**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?

No

Explain Quality Management System in adoption process or currently in place
See letter to Dr. Matthew Stone (cc Sara Linnane and others) sent by email on 12 January 2017. Our Veterinary Diagnostic Laboratory, which does our primary diagnostic work, is accredited to ISO17025 standard by the American Association of Veterinary Laboratory Diagnosticians

16. Is your quality management system accredited?

No

17. Does your laboratory maintain a "bio-risk 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?

Yes

National/International	Title of event	Co-organiser	Date (mm/yy)	Location	No. Participants
international	5th ISIRV International meeting on Neglected Influenza Viruses	Andrew Bowman, OSU	now to be held 05/2022	Zoom	expect 100

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
Annual meeting of the Equine Influenza Expert Surveillance Panel	July 8, 2021	Zoom	speaker	update on equine influenza activity in the USA with sequence and antigenicity comparisons

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?

No

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?

Yes

Title of the project or contract	Scope	Name(s) of relevant OIE Reference Laboratories
Comparative antigenicity by serum neutralization testing of recent equine influenza virus isolates	comparison of results between labs	Equine Research Institute, JRA
Equine influenza surveillance and virus characterization	international surveillance of equine influenza viruses in circulation and their relation to vaccine strains	OIE reference labs for EIV in Ireland, Japan, USA

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?

No

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

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?

Yes

Kind of consultancy	Location	Subject (facultative)
ad hoc meeting of the equine influenza Expert Surveillance Panel	Zoom	review of equine influenza activity worldwide in 2020

25. Additional comments regarding your report: