OIE Reference Laboratory Reports Activities

Activities in 2021

This report has been submitted : 2022-02-17 18:17:20

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Equine influenza
Address of laboratory:	Johnstown Naas Co. Kildare IRELAND
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Website:	www.irishequinecentre.ie
Name (including Title) of Head of Laboratory (Responsible Official):	Sarah McNicholas BBS MSc CEO
Name (including Title and Position) of OIE Reference Expert:	Professor Ann Cullinane Head of Virology
Which of the following defines your laboratory? Check all that apply:	Other: Registered Charity

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	
Indirect diagnostic tests		Nationally	Internationally
Single radial haemolysis	Yes	2	1859
Haemagglutination Inhibition	Yes	105	24
Direct diagnostic tests		Nationally	Internationally
Real Time RT-PCR		1323	378
Virus isolation		3	146

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?

Yes

NOTE: Currently, there are 22 laboratories that produce Standard Reference Reagents officially recognised by the OIE for 19 diseases/pathogens. Please click the following link to the list of OIE-approved International Standard Sera: http://www.oie.int/en/our-scientific-expertise/veterinary-products/reference-reagents/. If the reagent is not listed on this page, it is NOT considered OIE-approved. The next two questions allow you to indicate non-OIE-approved diagnostic reagents.

Disease	Test	Available from
Equine influenza	Haemagglutination inhibition; single radial haemolysis	Dr Marie-Emmanuelle Behr-Gross European Directorate for the Quality of Medicines, Council of Europe, 224 avenue de Colmar (entrée rue Schertz), F-67100 Strasbourg, France Tel: 33 (0)3 90.21.41.08 Fax: 33(0)3. 88.41.27.71 marie-emmanuelle.behr-gross@pheur.org

Type of reagent available	Related diagnostic test	Produced/ Supply imported	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	Name of recipient OIE Member Countries
Anti-sera	HI	Imported	◉<10mL ○10-100mL ○100-500mL ○>500mL	◉<10mL ○10-100mL ○100-500mL ○>500mL	BRAZIL

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
Clade 1 Influenza virus	Vaccine development	Produced	0	1ml	1	☐Africa ☒Americas ☐Asia and Pacific ☐Europe ☐Middle East
Clade 2 Influenza virus	Vaccine Development	Produced	0	1ml	1	☐Africa ☒Americas ☐Asia and Pacific ☐Europe ☐Middle East
Clade 2 Influenza virus	Vaccine Development	Produced	0	2mls	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
Clade 1 Influenza virus	PCR	Produced	0	2mls	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐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
UNITED KINGDOM	February	4	0
UNITED KINGDOM	September	21	0
UNITED KINGDOM	December	1	0
FRANCE	April	3	0
FRANCE	September	6	0
FRANCE	October	2	0
ISRAEL	December	0	9

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	Appropriate sampling materials for use in quarantine facility	Electronic
COLOMBIA	Advice re virus transport medium and Nasopharyngeal swabs, testing by ELISA and virus characterisation	Electronic
CHINA (PEOPLE'S REP. OF)	Sample pooling	Electronic
UNITED ARAB EMIRATES	Advice re equine influenza vaccine strains	Electronic

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
Investigation of vaccination regimes for young foals with maternal antibodies	2021-2023	Investigation of equine influenza antibody kinetics in four protocols of primary vaccination of foals	Hanover University and Cornell University	GERMANY UNITED STATES OF AMERICA
Characterisation of recent clade 1 viruses	2021-2022	Antigenic characterisation of recent viruses to determine if current vaccine strains are fit for purpose	Japanese Racing Association	JAPAN

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:
Epidemiological investigation of outbreak and virus characterisation by sequencing.

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:
As above nationally and internationally.

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: 4
1 Cullinane A. and Garvey M. A review of diagnostic tests recommended by the World Organisation for Animal Health Manual of Diagnostic Tests and Vaccines for Terrestrial Animals. OIE Scientific and Technical Review 2021, 40 (1), 75-89 *

2. Allkofer A, Garvey M, Ryan E, Lyons R, Ryan M, Lukaseviciute G, Walsh C, Venner M, Cullinane A. Primary vaccination in foals: a comparison of the serological response to equine influenza and equine herpesvirus vaccines administered concurrently or 2 weeks apart. Arch Virol. 2021 Feb;166(2):571-579. doi: 10.1007/s00705-020-04846-6. Epub 2021 Jan 7. PMID: 33410993. *

3. Nemoto M, Ohta M, Yamanaka T, Kambayashi Y, Bannai H, Tsujimura K, Yamayoshi S, Kawaoka Y, Cullinane A. Antigenic differences between equine influenza virus vaccine strains and Florida sublineage clade 1 strains isolated in Europe in 2019. Vet J. 2021 Jun;272:105674. doi: 10.1016/j.tvjl.2021.105674. Epub 2021 Apr 14. PMID: 33941332.

4. Diallo AA, Souley MM, Issa Ibrahim A, Alassane A, Issa R, Gagara H, Yaou B, Issiakou A, Diop M, Ba Diouf RO, Lo FT, Lo MM, Bakhoum T, Sylla M, Seck MT, Meseko C, Shittu I, Cullinane A, Settypalli TBK, Lamien CE, Dundon WG, Cattoli G. Transboundary spread of equine influenza viruses (H3N8) in West and Central Africa: Molecular characterization of identified viruses during outbreaks in Niger and Senegal, in 2019. Transbound Emerg Dis. 2021 May;68(3):1253-1262. doi: 10.1111/tbed.13779. Epub 2020 Aug 17. PMID: 32770642. *

b) International conferences: 3
11th International Equine Infectious Diseases Conference:

1.OIE ESP Global Equine Influenza Surveillance. A. Cullinane

2. Molecular characterisation of viruses responsible for outbreaks of equine influenza (2019-2020) M. Garvey, N. Carey, K. van Maanen and A. Cullinane

3. Validation of equine influenza real time RT-PCR test to OIE standard A. Cullinane, R. Lyons, I. Gardner, E. Medcalf, D. Elton, A. Rash, S. Gildea, R. C. Janer, C. J. Fernandez, T. Q. Huang Fu, A. Mete and E. Gur

4. Review of equine diagnostic tests recommended in the World Organisation for Animal Health (OIE) Terrestrial Manual A. Cullinane and M. Garvey

FEEVA Disease Surveillance Network Vth Summit
1.OIE ESP Global Equine Influenza Surveillance. A. Cullinane

Annual Conference of Finnish Veterinarians
1. Equine Influenza Evidence Based Vaccination of Horses

c) National conferences: 0

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?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
ISO17025	the-irish-equine-foundation-ltd-151t.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Single radial haemolysis	INAB
Haemagglutination Inhibition	INAB
Real Time RT-PCR	INAB

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?

Yes

National/ International	Title of event	Co-organiser	Date (mm/yy)	Location	No. Participants
International	OIE Expert Surveillance Panel	Gounalan Pavade	June 2021	By Videoconference	19

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
11th International Equine Infectious Diseases Conference	September 2021	By videoconference	Speaker	13B above
FEEVA Disease Surveillance Vth Summit	October 2021	Caen, France	Speaker	13B above
Finnish Annual Veterinary Congress	December 2021	By videoconference	Speaker	13B above

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
Expert Surveillance Panel	Global surveillance, assessment of vaccine efficacy and virus characterisation.	Gluck Equine Research Centre, University of Kentucky.Equine Research Institute, Japan Racing Association.

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
Assessing competency for HI	3	☐Africa ☐Americas ☒Asia and Pacific ☒Europe ☐Middle East
Assessing competency for PCR and quality assurance	3	☐Africa ☐Americas ☒Asia and Pacific ☒Europe ☐Middle East
Assessing competency for HI and quality assurance	2	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐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?

Yes

Kind of consultancy	Location	Subject (facultative)
Member of the Biological Standards Commission	Videoconference	International Standards for Diagnostic Tests and Vaccines
Representative of BSC on Ad hoc Group	Videoconference	The revision of Terrestrial Code chapters regarding the collection and processing of semen of animals
Chair of FAO-OIE Advisory group on viral evolution of SARS-CoV-2 in animals	Videoconference	Monitoring key mutations and their implications for animals and humans.
OIE representative on WHO Advisory Group on viral evolution of SARS-CoV-2	Videoconference	Monitoring key mutations and their implications for public health
OIE representative at WHO meeting on Global Genomic Surveillance Strategy for pathogens with pandemic and epidemic potential.	Videoconferences	Enhancing sequencing of pathogens with pandemic and epidemic potential.
OIE representative at meeting of the European Standards Organisation (CEN)	Videoconferences	Initiative to harmonise diagnostic methods for animal health throughout the EU.
Second Chair for the OIE pre-88th GS Information Webinars for Asia and the Pacific, and Africa, Europe, Middle East.	Videoconferences	Standards proposed for adoption

25. Additional comments regarding your report:

Due to the COVID pandemic most meetings were by videoconference, international travel was curtailed and it was impossible to host visitors for training.