World Organisation for Animal Health

Ann Cullinane - - IRELAND

WOAH Reference Laboratory Reports Activities 2024

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LABORATORY INFORMATION

***Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:**	Equine influenza
***Address of laboratory:**	Irish Equine Centre, Johnstown, Naas, Co. Kildare, Ireland
***Tel:**	+353-45 86.62.66
***E-mail address:**	acullinane@irishequinecentre.ie
Website:	https://irishequinecentre.ie
***Name (including Title) of Head of Laboratory (Responsible Official):**	Deborah Grey MBA CEO
***Name (including Title and Position) of WOAH Reference Expert:**	Professor Ann Cullinane MVB PhD Head of Virology
***Which of the following defines your laboratory? Check all that apply:**	Registered Charity

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
Single Radial Haemolysis	Yes	0	381
HI	Yes	127	0
Direct diagnostic tests		Nationally	Internationally
Real-time RT-PCR	Yes	1572	7

Virus Isolation	Yes	0	3

TOR2: REFERENCE MATERIAL

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

Yes

Type of reagent available	Related diagnostic testing	Produced/ imported	Quantity supplied nationwide (ml, mg)	Quantity supplied at international level (ml, mg)	Name of beneficiary WOAH Member Countries
EDQM reference horse antiserum against A/Eq/Newmarket/77	HI	Imported		< 10mL	ITALY,
EDQM reference horse antiserum against A/Eq/Newmarket/2/93	HI	Imported		< 10mL	ITALY,
EDQM reference horse antiserum against A/Eq/South Africa/4/03	HI	Imported		< 10mL	ITALY,
EDQM reference horse antiserum against A/Eq/Richmond/2007	HI	Imported		< 10mL	ITALY,

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

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient WOAH Member Countries	Country of recipients
Equine influenza antibody negative serum	HI	Provided	0	2ml	1	HONG KONG,
Virus: Influenza A/eq/Tipperary/1/2023, Florida Sublineage Clade 1	HI	Produced	0	20mls	1	CZECH REPUBLIC,
Virus Influenza A/eq/Kilkenny/1/2016, Florida Sublineage Clade 2	HI	Produced	0	20mls	1	CZECH REPUBLIC,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAH 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 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

Name of WOAH 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
UNITED KINGDOM	2024-01-11	Real time RT-PCR	1	0
UNITED KINGDOM	2024-01-29	Real time RT-PCR	1	0
SPAIN	2024-03-22	SRH	339	0
FRANCE	2024-04-18	SRH	8	0
UNITED KINGDOM	2024-06-10	Real time RT-PCR	1	0
SPAIN	2024-07-25	SRH	24	0
FRANCE	2024-09-17	SRH	10	0
UNITED KINGDOM	2024-10-01	Real time RT-PCR	1	0
UNITED KINGDOM	2024-11-13	Real time RT-PCR	2	0
UNITED KINGDOM	2024-03-12	Real time RT-PCR	1	0

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

Yes

Name of the WOAH Member Country receiving a technical consultancy	Purpose	How the advice was provided
COLOMBIA	Genetic characterisation and phylogenetic analysis of equine influenza viruses	Videoconference
THE NETHERLANDS	Biannual Vaccination	Email
CZECH REPUBLIC	Virus propagation in eggs and tissue cultures	Email
SWITZERLAND	Use of intranasal influenza vaccines	Email
CZECH REPUBLIC	Vaccine strain composition	Email
GERMANY	Vaccine strain composition	Email
THE NETHERLANDS	Intervals between second and	Email

	third dose of vaccine	

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	WOAH Member Countries involved other than your country
A comparative evaluation of seven commercial human influenza virus antigen detection kits for the diagnosis of equine influenza	2023-2024	Evaluation of human influenza virus antigen detection kits to determine their use for the diagnosis of equine influenza including recently circulating strains.	Equine Research Institute, Japan Racing Association	JAPAN
Investigation of vaccination regimes in foals with maternal antibodies.	2021-2024	Investigation of equine influenza antibody kinetics in four protocols of primary vaccination of foals.	Hanover University.	GERMANY
Development of Bivalent Equine Influenza H3N8 Virus-like Particle Vaccine	2020-present	Development and assessment of new-generation bivalent EI VLP vaccine produced in plants.	CSIR South Africa, University of Pretoria, South Africa, University of Kentucky, USA, University of Haripur, Pakistan, University of Nottingham, UK	IRELAND PAKISTAN SOUTH AFRICA UNITED KINGDOM UNITED STATES OF AMERICA

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

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:
Epidemiological investigation of outbreaks and antigenic and genetic virus characterisation.

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:

As above nationally and internationally.

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:

2
A comparative evaluation of seven commercial human influenza virus antigen detection kits for the diagnosis of equine influenza (in progress - minor revisions requested by Equine Veterinary Journal).
Protective Efficacy of a Bivalent Equine Influenza H3N8 Virus-like Particle Vaccine in Horses (in progress- minor revisions requested by Vaccine)

b) International conferences:

5
1. International Equine Infectious Disease Conference (IEIDCXII):
Equine Influenza – Epidemiology and Control [Ann Cullinane].
Antigenic and Molecular Characterisation of the Viruses Responsible for Outbreaks of Equine Influenza (2021-2024) [Marie Garvey]
2. Federation of European Equine Veterinary Associations (FEEVA): Updates from WOAH on Equine Influenza and Equine Rhinopneumonitis (EHV) [Ann Cullinane]
3. WOAH Expert Surveillance Panel on Equine Influenza vaccine composition: Report on Equine Influenza Outbreaks 2023-2024. [Ann Cullinane].
Molecular Characterisation and Phylogeny [Marie Garvey]
4. European Society for Equine Reproduction Workshop
Comparison of primary vaccination regimes for equine influenza and equine herpesvirus [Ann Cullinane]
5. IFCE International Conference: Controlling Equine Influenza and Rhinopneumonitis- the benefits of international collaboration to the equine industry [Ann Cullinane]

c) National conferences:

2
Irish Equine Veterinary Association Annual Conference: Virology Update including equine influenza. [Ann Cullinane]
Irish Thoroughbred Breeders Association Seminar: Emerging Viral Diseases. [Ann Cullinane]

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

2
https://www.equinesurveillance.org/
https://respe.net/

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH Members?

Yes

a) Technical visit : 1

b) Seminars : 0

c) Hands-on training courses: 1

d) Internships (>1 month) 0

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
C	ALGERIA	1
A	FRANCE	2

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

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

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
HI	INAB
SRH	INAB
RT-PCR	INAB

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

Yes

The Irish Equine Centre maintains its laboratory biological risk management system in accordance with the WOAH Manual of Diagnostic Tests and Vaccines for Terrestrial Animals. Chapter 1.1.4. Biosafety and Biosecurity: Standard for Managing Biological Risk in the Veterinary Laboratory and Animal Facilities.

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAH?

Yes

National/ International	Title of event	Co-organiser	Date	location	No. Participants
	WOAH Expert			Hybrid (In person at WOAH headquarters	

International	Surveillance Panel	Gounalan Pavade	2024-09-26	Paris and by videoconference.)	19

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAH?

Yes

Title of event	Date	location	Role (speaker, presenting poster, short communications)	Title of the work presented
WOAH Regional Workshop on "Facilitation of International Horse Movement" in Asia and Pacific.	2024-01-17	Pattaya, Thailand	Speaker	Role of a WOAH Reference Laboratory
WOAH Regional Workshop on "Facilitation of International Horse Movement" in Asia and Pacific.	2024-01-18	Pattaya, Thailand	Chair	Building Laboratory Capacity
Regional WOAH workshop on laboratory expertise for equine diseases in Asia and the Pacific	2024-09-17	Japan	Speaker (by Video)	Role of a WOAH Reference Laboratory
Regional WOAH workshop on laboratory expertise for equine diseases in Asia and the Pacific	2024-09-17	Japan	Speaker (by Video)	The role of the WOAH Biological Standards Commission (BSC) and an update on the laboratory twinning programme".
Federation of European Equine Veterinary Associations FEEVA Disease Surveillance Network VIII Summit	2024-10-04	Deauville, France	Speaker	Updates from WOAH on Equine Influenza and Equine Rhinopneumonitis (EHV).
OFFLU meeting at the Food and Agriculture Organization (FAO) of the United Nations	2024-07-02	FAO, Rome, Italy	Speaker	Update on the activities, priorities and plans of the equine influenza working group.

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

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

Yes

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

Yes

	ROLE OF YOUR LABORATORY	NO. PARTICIPANTS	PARTICIPATING WOAH REF. LABS

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NETWORK/DISEASE	(PARTICIPANT, ORGANISER, ETC)		
Equine Influenza	Organiser	19	Equine Research Institute at the Japan Racing Association and Maxwell H Gluck Equine Research Centre.

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

No

0

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?

Yes

Title of the project or contract	Scope	Name(s) of relevant WOAH Reference Laboratories
WOAH Expert Surveillance Panel	Global Surveillance, Assessment of Vaccine Efficacy and Virus Characterisation.	Maxwell H Gluck Equine Research Centre and Equine Research Institute, Japan Racing Association

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 during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Assessing competency for HI	Organiser	2	HI	SERBIA,
Assessing competency and quality assurance for real time RT-PCR and HI	Organiser	3	Real time RT-PCR and HI	FRANCE, HONG KONG,
Assessing competency and quality assurance for real time RT-PCR	Organiser	3	Real time RT-PCR	GERMANY, SAUDI ARABIA,
Assessing competency for the detection of antibodies against Influenza A	Organiser	2	ELISA	SAUDI ARABIA,

Assessing competency for SRH	Organiser	2	SRH	FRANCE,

TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
WOAH Biological Standards Commission	WOAH Headquarters Paris	Biannual Meetings of Commission. Reports available on WOAH website.
WOAH General Session.	Maison de la Chimie, Paris	Deputy to President of Biological Standards Commission.
Ad Hoc group	Videoconference	Emerging Diseases and Drivers of Disease Emergence in Animals.
WHO	Videoconference	Expert Group to update the Public Health Research Agenda for Influenza
WOAH Webinar	Videoconference	Pre-General Session webinar - Deputy to President of BSC

29. Additional comments regarding your report:

Yes

Member of International Scientific Committee for the twelfth International Equine Infectious Disease Conference (IEIDCXII) Deauville, France. 30th September – 4th October 2024.

Member of Scientific Committee for the 5th International Symposium on Neglected Influenza Viruses, Lexington, Kentucky, USA. 8-10 April 2024