

# WOAH Reference Laboratory Reports Activities 2023

## Activities in 2023

This report has been submitted : 28 juin 2024 13:15

### Laboratory Information

<b>Name of disease (or topic) for which you are a designated WOAHO Reference Laboratory:</b>	Equine Influenza
<b>Address of laboratory:</b>	Irish Equine Centre, Johnstown, Naas, Co. Kildare, Ireland
<b>Tel.:</b>	+35345866266
<b>E-mail address:</b>	acullinane@irishequinecentre.ie
<b>Website:</b>	https://irishequinecentre.ie
<b>Name (including Title) of Head of Laboratory (Responsible Official):</b>	Deborah Grey MBA CEO
<b>Name (including Title and Position) of WOAHO Reference Expert:</b>	Professor Ann Cullinane MVB PhD Head of Virology
<b>Which of the following defines your laboratory? Check all that apply:</b>	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 WOAHO Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
<b>Indirect diagnostic tests</b>			
Single Radial Haemolysis		0	229
Haemagglutination Inhibition		94	2
<b>Direct diagnostic tests</b>			
Real-Time RT-PCR		1606	5
Virus Isolation		12	0

### TOR2: REFERENCE MATERIAL

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

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 WOAHO MEMBER COUNTRIES
EDQM reference horse antiserum against A /eq/Newmarket/2/93	HI	Imported		< 10mL	ITALY,
EDQM reference horse antiserum against A /eq/Newmarket/77	HI	Imported		< 10mL	ITALY, SPAIN,
EDQM reference horse antiserum against A	HI	Imported		< 10mL	ITALY,

/eq/Newmarket/77					
EDQM reference horse antiserum against A /eq/Richmond/1/2007	HI	Imported		< 10mL	ITALY,
EDQM reference horse antiserum against A /eq/Richmond/1/2007	HI	Imported		< 10mL	SPAIN,
EDQM reference horse antiserum against A/eq/South Africa/04/2003	HI	Imported		< 10mL	ITALY,
EDQM reference horse antiserum against A/eq/South Africa/04/2003	HI	Imported		< 10mL	SPAIN,

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
Negative Control Antiserum	HI	Produced	0	2ml	2	HONG KONG, SPAIN,
Negative Control Antiserum	HI	Produced	0	1ml	1	ITALY,
Positive Control Antiserum	HI	Produced	0	1.5ml	1	ITALY,
Virus A /eq/Newmarket/2/93 (H3N8 European)	HI	Produced	0	2ml	1	GERMANY,
Virus A /eq/Meath/1/2007 (H3N8 Florida sub-lineage clade 2)	HI	Produced	0	3 x 1ml	3	ITALY, MEXICO, SPAIN,
Virus A /eq/Meath/1/2007 (H3N8 Florida sub-lineage clade 2)	HI	Produced	0	50ml	1	SPAIN,
Equine Influenza virus RNA for PCR control	PCR	Produced	0	4ml	1	MEXICO,
Virus A /eq/South Africa/4/2003 (H3N8 Florida sub-lineage clade 1)	HI	Produced	0	50mls	1	SPAIN,
Virus A /eq/South Africa/4/2003 (H3N8 Florida sub-lineage clade 1)	HI	Produced	0	3 x 1ml	3	ITALY, MEXICO, SPAIN,

4. Did your laboratory produce vaccines?

No

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 WOAHS Standards for the designated pathogen or disease?

No

**TOR4: DIAGNOSTIC TESTING FACILITIES**

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

Yes

NAME OF WOAHS 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
FRANCE	2023-03-09	SRH	6	0
SPAIN	2023-07-06	SRH	154	0
UNITED KINGDOM	2023-07-17	HI	1	0
UNITED KINGDOM	2023-07-27	PCR	1	0
UNITED KINGDOM	2023-08-03	PCR	1	0
UNITED KINGDOM	2023-08-14	HI	1	0
FRANCE	2023-09-21	SRH	18	0
CZECH REPUBLIC	2023-12-31	Sequencing	0	1

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

Yes

NAME OF THE WOAHS MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
EGYPT	Primers for Influenza A detection	Email
COLOMBIA	Genetic characterisation and phylogenetics of Equine Influenza viruses	Videoconferences
ITALY	To provide standard procedures for SRH, HI and equine influenza virus production in embryonated eggs	Email
TURKEY	Internal Control for Real-time PCR	Email
DENMARK	Vaccination regimes	E-mail
THE NETHERLANDS	Vaccination regimes	E-mail

**TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES**

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

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAHS MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
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 and Cornell University	GERMANY UNITED STATES OF AMERICA
Characterisation of recent clade 1 viruses.	2021-2024	Antigenic characterisation of recent viruses to determine if current vaccine strains are fit for purpose.	Japan Racing Authority	JAPAN

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

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 virus characterisation by sequencing.

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

1. Kawanishi N, Kinoshita Y, Kambayashi Y, Bannai H, Tsujimura K, Yamanaka T, Cullinane A, Nemoto M. Performance of a microfluidic immunofluorescence assay kit for equine influenza virus antigen detection. *J Equine Vet Sci.* 2023 Dec;131:104956. doi: 10.1016/j.jevs.2023.104956. Epub 2023 Oct 23. PMID: 37879453.2. Nemoto M, Reedy SE, Yano T, Suzuki K, Fukuda S, Garvey M, Kambayashi Y, Bannai H, Tsujimura K, Yamanaka T, Cullinane A, Chambers TM. Antigenic comparison of H3N8 equine influenza viruses belonging to Florida sublineage clade 1 between vaccine strains and North American strains isolated in 2021-2022. *Arch Virol.* 2023 Feb 19;168(3):94. doi: 10.1007/s00705-023-05720-x. PMID: 36806782.

b) International conferences:

3

FEEVA, WOAHP ESP, WOAHP Asia Pacific webinar on Equine Rhinopneumonitis (Infection with Equid Herpesvirus 1 and 4).

c) National conferences:

0

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

1

<https://equinesurveillance.org/>

## TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

a) Technical visit : 1

b) Seminars : 0

c) Hands-on training courses: 1

d) Internships (&gt;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
A	GERMANY	1
C	COLOMBIA	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	IEC ISO17025 INAB.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 IEC maintains its laboratory biological risk management system in accordance with the WOAHP 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 WOAHP?

Yes

NATIONAL/ INTERNATIONAL	TITLE OF EVENT	CO-ORGANISER	DATE (MM/YY)	LOCATION	NO. PARTICIPANTS
International	WOAH Expert Surveillance Panel	Gounalan Pavade	2023-07-06	Hybrid (In person and videoconference)	25

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

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
Equine Influenza. Webinar as part of a WOAHP project on international horse movement in Asia and the Pacific region.	2023-05-31	Tokyo	Speaker	Epidemiology, geographical distribution and recent outbreaks, surveillance and control. and The role of the WOAHP Reference Laboratory; Expert surveillance panel on EI vaccine composition
FEEVA Disease Surveillance Network VII Summit	2023-09-26	Czech Republic	Speaker	Activities of the WOAHP ESP for Equine Influenza" and "Comparison of primary vaccination regimes for equine influenza and equine herpesvirus"

## TOR10: NETWORK WITH WOAHP REFERENCE LABORATORIES

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

Yes

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

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS
Equine Influenza	Organiser	25	Japan Racing Association and Maxwell H Gluck Equine Research Centre

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

No

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?

Yes

TITLE OF THE PROJECT OR CONTRACT	SCOPE	NAME(S) OF RELEVANT WOA REFERENCE LABORATORIES
WOAH Expert Surveillance Panel	Global Surveillance, Assessment of Vaccine Efficacy and Virus Characterisation	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 WOA Reference Laboratories for the same pathogen?

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
Assessing competency for HI	Organiser	2	HI	HONG KONG, SERBIA,
Assessing competency and quality assurance for HI and real time RT-PCR	Organiser	2	HI, real time RT-PCR	FRANCE, SPAIN,
Assessing competency for SRH	Organiser	1	SRH	FRANCE,

## TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Biannual Commission Meetings	WOAH HQ, Paris	Vice President of Biological Standards Commission . For subject matter please consult BSC reports on WOA website
WOAH Biological Standards Commission	WOAH HQ, Paris	Attendance at sustainable laboratories expert training course.
WOAH General Session	Maison de la Chimie in Paris	Deputy to President of Biological Standards Commission.
WOAH Biological Standards Commission	WOAH HQ, Paris	Attendance at WOA Global Conference on Emergency Management
Ad Hoc Group	WOAH HQ, Paris	Emerging Diseases and Drivers of Disease Emergence in Animals
Attendance at WHO meetings	Videoconferences	Continuing evolution of SARS-CoV-2 virus and outbreaks of COVID globally.
Revision of WOA Manual Chapter	Remote	Equine Rhinopneumonitis
Expert reports for WOA specialist commissions re inclusion of diseases in WOA list.	Remote	Eastern equine encephalomyelitis, Western Equine Encephalitis, Venezuelan Equine Encephalitis and Japanese Encephalitis

29. Additional comments regarding your report: