

WOAH Reference Laboratory Reports Activities 2025

This report has been submitted: 3 février 2026 11:40

LABORATORY INFORMATION

*Name of disease (or topic) for which you are a designated WOA 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 WOA 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 WOA Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
Single Radial Haemolysis	Yes	0	451
HI	Yes	183	2
Direct diagnostic tests			
Real-time RT-PCR	Yes	1675	54
Virus Isolation	Yes	0	3

TOR2: REFERENCE MATERIAL

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

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 WOA Member Countries
EDQM reference antiserum against A/eq/Newmarket/77	HI	Imported		< 10mL	THAILAND,
EDQM reference antiserum against A/eq/South Africa/4/03	HI	Imported		< 10mL	NORWAY, THAILAND,
EDQM reference antiserum					

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against A/eq/Richmond/2007	HI	Imported	< 10mL	NORWAY, THAILAND,
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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
Equine influenza antibody negative serum	HI	Provided	0	2mls	1	HONG KONG,
H3N8 Virus: Influenza A/eq/Tipperary/2019 Florida Sublineage Clade 1	HI	Produced	0	50mls x2	2	NORWAY, THAILAND,
H3N8 Virus: Influenza A/eq/Meath/07 Florida Sublineage Clade 2	HI	Produced	0	50mls x2	2	NORWAY, THAILAND,
H7N7 Virus: Influenza A/eq/Newmarket/77	HI	Produced	0	50mls	1	THAILAND,
Equine Influenza RT-PCR positive reference samples	RT-PCR	Provided	6 X 170ul	0	1	IRELAND,
Equine Influenza RT-PCR negative reference samples	RT-PCR	Provided	3 X 170ul	0	1	IRELAND,
Ferret anti-sera against Florida sub-lineage clade 1 and clade 2 H3N8 viruses	HI	Produced	0	2.5mls x 5	1	UNITED STATES OF AMERICA,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA Members?

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?

9. Did your laboratory validate vaccines according to WOA Standards for the designated pathogen or disease?

TOR4: DIAGNOSTIC TESTING FACILITIES

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

Yes

Name of WOA 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	2025-03-24	Single Radial Haemolysis	11	0
UNITED KINGDOM	2025-04-04	Real-time RT-PCR	2	0
UNITED KINGDOM	2025-04-11	Real-time RT-PCR	1	0
BELGIUM	2025-07-03	Single Radial Haemolysis	418	0

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ALGERIA	2025-07-11	Real-time RT-PCR	49	0
FRANCE	2025-09-08	Single Radial Haemolysis	7	0
BELGIUM	2025-10-16	Single Radial Haemolysis	15	0
UNITED KINGDOM	2025-12-15	HI	2	0
UNITED KINGDOM	2025-12-17	Real-time RT-PCR	2	0

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

Yes

Name of the WOA Member Country receiving a technical consultancy	Purpose	How the advice was provided
CZECH REPUBLIC	Vaccine strain composition.	Email
EGYPT	Vaccine strain composition.	Email
RUSSIA	Access to equine H3N8 sequence data on GISAID.	Email
COLOMBIA	Phylogenetic analysis of equine influenza in Colombia	Email
UNITED STATES OF AMERICA	Antigenic characterisation	Email
SWITZERLAND	Interruption to vaccine supply	Email
CZECH REPUBLIC	Challenge strain for vaccine studies	Email
BELGIUM	Vaccination of foals	Email

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOA 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
Protective efficacy of a bivalent equine influenza H3N8 virus-like particle vaccine	2020-2025	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
A comparative evaluation of seven commercial human influenza virus antigen detection kits for the diagnosis of equine influenza.	2023-2025	Evaluation of human influenza virus antigen detection kits to determine their use for the diagnosis of equine influenza.	Equine Research Institute, Japan Racing Association.	JAPAN
Growth properties of recombinant equine influenza viruses with different backbones generated by reverse genetics in embryonated chicken eggs.	2024-2025	Comparison of growth properties in eggs between reverse genetics viruses with an equine influenza virus derived backbone and those with a high yield PR8 backbone to evaluate their usefulness for vaccine production.	Equine Research Institute, Japan Racing Association.	JAPAN
A Systematic Review of New, Enhanced Surveillance Systems and Methodologies for Zoonotic Influenza Viruses in Animals and Human-Animal Interface	2024-2025	Summarized enhanced and novel surveillance methods and technologies applied in domestic animal husbandry and exposed humans and in wildlife and their outcomes and highlighted gaps in these surveillance methodologies reported globally between 2017 and 2024.	Human Link DMCC, Dubai; World Health Organization HQ/WPE/EPP/GIP, Geneva; Hong Kong Polytechnic University; St. Jude Children's Research Hospital, Memphis, Tennessee; Molecular Genetics of RNA Viruses Unit, Institut Pasteur, Paris; Jordan University of Science and Technology; Centre Pasteur du Cameroon, School of Public Health, The University of	CAMEROON FRANCE HONG KONG IRELAND JORDAN MADAGASCAR SWITZERLAND UNITED ARAB EMIRATES UNITED STATES OF AMERICA

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			Hong Kong; Institut Pasteur de Madagascar.	
Role and Contribution of Serological Surveillance in Animals and Exposed Humans to the Study of Zoonotic Influenza Disease Epidemiology: A Scoping Review	2024-2025	Mapping of the global research landscape on serological surveillance of zoonotic influenza in animals and exposed humans between 2017 and 2024, with identification of methodological advancements.	Human Link DMCC, Dubai; Global Influenza Programme World Health Organization Geneva; Hong Kong Polytechnic University; St. Jude Children's Research Hospital, Memphis, Tennessee; Molecular Genetics of RNA Viruses Unit, Institut Pasteur, Paris; Jordan University of Science and Technology; Centre Pasteur du Cameroon, School of Public Health, The University of Hong Kong.	CAMEROON FRANCE HONG KONG IRELAND JORDAN SWITZERLAND UNITED ARAB EMIRATES UNITED STATES OF AMERICA
Transmission Pathways of Zoonotic Influenza Viruses and Influencing Factors: A Systematic Review of Recent Findings	2024-2025	Comprehensive literature review highlighting research findings from 2017 to 2024, focusing on the primary zoonotic influenza virus transmission pathways, factors influencing zoonotic transmission, and key knowledge gaps.	Human Link DMCC, Dubai; Global Influenza Programme World Health Organization Geneva; Hong Kong Polytechnic University; St. Jude Children's Research Hospital, Memphis, Tennessee; Molecular Genetics of RNA Viruses Unit, Institut Pasteur, Paris; Jordan University of Science and Technology; Centre Pasteur du Cameroon, School of Public Health, The University of Hong Kong.	CAMEROON FRANCE HONG KONG IRELAND JORDAN SWITZERLAND UNITED ARAB EMIRATES UNITED STATES OF AMERICA

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

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:

6

1: O'Kennedy MM, Reedy SE, Abolnik C, Khan A, Smith T, du Preez I, Olajide E, Daly J, Cullinane A, Chambers TM. Protective efficacy of a bivalent equine influenza H3N8 virus-like particle vaccine in horses. *Vaccine*. 2025 Mar

19;50:126861. doi: 10.1016/j.vaccine.2025.126861.

2: Nemoto M, Kawanishi N, Kambayashi Y, Bannai H, Yamanaka T, Garvey M, Cullinane A, Yamayoshi S, Kawaoka Y, Tsujimura K. Growth properties of recombinant equine influenza viruses with different backbones generated by reverse genetics in embryonated chicken eggs. *Arch Virol.* 2025 Jul 12;170(8):181. doi: 10.1007/s00705-025-06368-5.

3: Badra R, Zhang W, Tam JSL, Webby R, van der Werf S, Nikisins S, Cullinane A, Gharaibeh S, Njouom R, Peiris M, Kayali G, Heraud JM. Transmission Pathways of Zoonotic Influenza Viruses and Influencing Factors: A Systematic Review of Recent Findings. *Viruses.* 2025 Jun 17;17(6):857. doi: 10.3390/v17060857.

4: Kawanishi N, Kinoshita Y, Reedy SE, Garvey M, Kambayashi Y, Bannai H, Tsujimura K, Yamanaka T, Cullinane A, Chambers TM, Nemoto M. A comparative evaluation of seven commercial human influenza virus antigen detection kits for the diagnosis of equine influenza. *Equine Vet J.* 2025 Mar 24. doi: 10.1111/evj.14500.

5: Badra R, Zhang W, Tam JSL, Webby R, Van Der Werf S, Nikisins S, Cullinane A, Gharaibeh S, Njouom R, Peiris M, Kayali G, Heraud JM. A Systematic Review of New, Enhanced Surveillance Systems and Methodologies for Zoonotic Influenza Viruses in Animals and Human-Animal Interface. *Influenza Other Respir Viruses.* 2025 Nov;19(11):e70178. doi: 10.1111/irv.70178.

6: Badra R, Zhang W, Tam JSL, Webby R, van der Werf S, Nikisins S, Cullinane A, Gharaibeh S, Njouom R, Peiris M, Kayali G, Heraud JM. Role and Contribution of Serological Surveillance in Animals and Exposed Humans to the Study of Zoonotic Influenza Disease Epidemiology: A Scoping Review. *Pathogens.* 2025 Jul 27;14(8):739. doi: 10.3390/pathogens14080739.

b) International conferences:

1

FEEVA Disease Surveillance IXth Summit Leipzig (GER) Presentation entitled "2025 Updates from WOAHA on Equine Influenza and Equine Rhinopneumonitis (EHV)"

c) National conferences:

1

Irish Equine Veterinary Association Annual Conference Presentations entitled "Comparison of primary vaccination regimes for equine influenza and equine herpesvirus " and "Antigenic and molecular characterisation of viruses responsible for outbreaks of equine influenza (2021-2025)"

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

1

<https://equinesurveillance.org>

<https://respe.net>

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

a) Technical visit : 1

b) Seminars : 0

c) Hands-on training courses: 0

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

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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 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	location	No. Participants
International	Expert surveillance panel on equine influenza vaccine composition	Gounalan Pavade	2025-09-13	Hybrid (in person at WOAHP headquarters 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	location	Role (speaker, presenting poster, short communications)	Title of the work presented
FEEVA Disease Surveillance IXth Summit	2025-09-22	Germany	Speaker	"2025 Updates from WOAHP on Equine Influenza and Equine Rhinopneumonitis (EHV)"

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. Are you a member of a network of 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	Equine Research Institute, Japan Racing Association and Maxwell H. Gluck Equine Research Center, University of Kentucky, USA.

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

Yes

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Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOAHO Ref. Labs/ organising WOAHO Ref Lab
Assessing competency and quality assurance for real time RT-PCR.	Organiser	6	Equine Research Institute, Japan Racing Association

26. Did your laboratory collaborate with other WOAHO 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 WOAHO Reference Laboratories
WOAHO Expert Surveillance Panel	Global surveillance, assessment of vaccine efficacy and virus characterisation.	Equine Research Institute, Japan Racing Association and Maxwell H. Gluck Equine Research Center, University of Kentucky, USA.

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAHO Reference Laboratories for the same pathogen during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAHO Member Countries
Assessing competency and quality assurance for real time RT-PCR.	Organiser	6	Real time RT-PCR.	FRANCE, HONG KONG, JAPAN, SPAIN, THAILAND,
Assessing competency for HI	Organiser	5	HI	HONG KONG, IRELAND, SERBIA, SPAIN, THAILAND,
Assessing competency for SRH and HI	Organiser	2	SRH and HI	FRANCE,

TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
WOAHO Biological Standards Commission.	WOAHO Headquarters Paris	Biannual Meetings of Commission. Reports available on WOAHO website.
WOAHO General Session	Maison de la Chimie, Paris	Deputy to President of Biological Standards Commission.
WOAHO Webinar	Videoconference	Pre-General Session Webinar-Deputy to President of Biological Standards Commission.
Animal Health Forum WOAHO General Session	Maison de la Chimie, Paris	Moderator for session on Vaccine Availability "Vaccine and Vaccination: from science to action - reflections for change"
Contributor to OFFLU website	Remote	Equine Influenza
Participant at WOAHO Reference Centre Network Meeting	WOAHO Headquarters Paris	OFFLU Overcoming technical challenges
Revision of WOAHO Manual Chapter	Remote	Equine Influenza
Member of Ad hoc Group on Emerging Diseases	Videoconference	Development of Emerging Disease Threats Watchlist
BSC observer at Ad hoc Group Meetings	Videoconference	Revamping of the WOAHO Register of Diagnostic Kits

29. Additional comments regarding your report:

No