

# OIE Reference Laboratory Reports Activities

## *Activities in 2021*

**This report has been submitted : 2022-02-23 18:16:04**

<b>Name of disease (or topic) for which you are a designated OIE Reference Laboratory:</b>	Equine rhinopneumonitis
<b>Address of laboratory:</b>	Johnstown Naas Co. Kildare IRELAND
<b>Tel.:</b>	+353-45 86.62.66
<b>Fax:</b>	+353-45 86. 62.73
<b>E-mail address:</b>	acullinane@irishequinecentre.ie
<b>Website:</b>	www.irishequinecentre.ie
<b>Name (including Title) of Head of Laboratory (Responsible Official):</b>	Sarah McNicholas BBS MSc CEO
<b>Name (including Title and Position) of OIE Reference Expert:</b>	Professor Ann Cullinane Head of Virology
<b>Which of the following defines your laboratory? Check all that apply:</b>	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	
		Nationally	Internationally
Indirect diagnostic tests			
CFT	Yes	613	2249
SNT	Yes	6	175
ELISA	Yes	0	12
Direct diagnostic tests			
Real Time PCR	Yes	2857	151
Virus isolation	Yes	1	297

**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
EHV1	CFT, SNT and PCR	Produced	0	67ml	4	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
EHV1 DNA	PCR	Produced	0	3ml	1	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Positive serum control	SNT CFT	Produced	0	3ml	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Negative serum control	SNT CFT	Produced	0	3ml	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input 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?

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
GERMANY	April	489	0
GERMANY	May	368	0
GERMANY	June	209	0
GERMANY	July	27	0
FRANCE	March	12	0
FRANCE	April	3	0
FRANCE	September	6	0
FRANCE	October	2	0
UNITED KINGDOM	February	2	0
UNITED KINGDOM	September	21	0
UNITED KINGDOM	December	1	0
UNITED KINGDOM	May	0	1
SPAIN	March	29	0
SWEDEN	April	7	31
GERMANY	October	0	18
GERMANY	December	0	1
KAZAKHSTAN	August	12	0
CHINA (PEOPLE'S REP. OF)	July	30	0
MOROCCO	August	0	2

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
POLAND	PCR and virus isolation protocols.	Electronic
CHINA (PEOPLE'S REP. OF)	Protocol for CFT and SNT	Electronic
SWEDEN	Information on multi-locus sequence typing	Electronic
SPAIN	Management of horses with neurological disease.	By telephone.
GERMANY	Molecular epidemiology.	Electronic
FRANCE	Virus typing	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
Equine Herpesvirus 1 Variant and New Marker for Epidemiologic Surveillance	2021	Initial characterisation of virus that caused international outbreak of neurological disease	Labeo Frank Duncombe, University of Caen, Writtle University,UK, Cisco-Oniris, Reseau dEpidemio-Surveillance en Pathologie Equine.	FRANCE
Characterisation of Equine Herpesvirus 1 responsible for multinational outbreak of neurological disease	2021-2022	Whole genome analysis	Federation Equestre Internationale, Labeo Frank Duncombe, University of Ghent	BELGIUM FRANCE SWITZERLAND
Comparison of Four Primary Vaccination Protocols	2021-2023	Compare the antibody response to different vaccination regimes in young foals	University of Hanover and Cornell College of Veterinary Medicine	GERMANY UNITED STATES OF AMERICA

**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, clinical, serological and molecular.

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:
Genetic characterisation of virus responsible for neurological outbreak that commenced in Spain and spread to ten countries necessitating the cancellation of equestrian events.

**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: 2

Sutton G, Normand C, Carnet F, Couroucé A, Garvey M, Castagnet S, Fortier CI, Hue ES, Marcillaud-Pitel C, Legrand L, Paillot R, Pitel PH, Cullinane A, Pronost S. Equine Herpesvirus 1 Variant and New Marker for Epidemiologic Surveillance, Europe, 2021. *Emerg Infect Dis.* 2021 Oct;27(10):2738-2739. doi: 10.3201/eid2710.210704. PMID: 34546162; PMCID: PMC84623336.

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 \*

b) International conferences: 2

1. 11th International Equine Infectious Diseases Conference - Plenary with Dr Richard Newton, British Horseracing Authority "EHV1 Management of horses at major equestrian events" and Presentation entitled "Review of equine diagnostic tests recommended in the World Organisation for Animal Health (OIE) Terrestrial Manual" A. Cullinane and M. Garvey

2. Annual Conference of the Finnish Veterinary Society - Equine Herpesvirus - A Constant Threat to Equine Health

c) National conferences: 3

1. Irish Thoroughbred Breeders (ITBA) - Ask the Experts Series - Presentation entitled "Equine Herpesvirus 1 Update"

2. Veterinary Clinical Society - Equine Herpesvirus 1 Neurological Outbreak in Spain

3. Association of Irish Racecourse Veterinary Surgeons (AIRCVS) Annual Conference Presentation entitled "Equine herpesvirus 1 and 4 - Anything new going on?"

d) Other:

(Provide website address or link to appropriate information) 2

<https://itba.info/News/ITBA-Educational-Programme-2021--Ask-The-Experts-Series-Follow-on-Guide/357037/Index.html>.

<https://www.horsesportireland.ie/news/page/12>.

**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 2021.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Detection of EHV1 by real time PCR	INAB
Complement Fixation Test	INAB
Serum Neutralisation Test	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	11th International Equine Infectious Diseases Conference	Member of International Committee	27th September-1st October 2021	By Videoconference	256

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
International Equine Diseases Conference	September 2021	By videoconference	Speaker	Review of equine diagnostic tests recommended in the World Organisation for Animal Health (OIE) Terrestrial Manual A. Cullinane and M. Garvey

***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
EHV-1 genome characterisation	Characterisation of virus responsible for outbreak of EHV-1 disease in Germany	Gluck Equine Research Centre Kentucky

**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 <sup>1</sup>	No. participating laboratories	Region(s) of participating OIE Member Countries
Assessing SNT competency	2	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Retention of ISO17025 accreditation for SNT and CFT	2	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Assessing real-time PCR competency	3	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Assessing real-time PCR competency and retention of ISO17025 accreditation	4	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> 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.	Videoconference	Enhancing sequencing of pathogens with pandemic and epidemic potential.
OIE representative at meeting of the European Standards Organisation (CEN)	Videoconference	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.	Videoconference	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.

I assisted the Federation Equestre Internationale (FEI) with the control of the outbreak of neurological disease in Europe, the genetic characterisation of virus and the development of procedures for minimising the risk as competitions were resumed.