OIE Reference Laboratory Reports Activities

Activities in 2020

This report has been submitted : 2021-01-14 10:16:46

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Infectious bursal disease (Gumboro disease)
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Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Nicolas Eterradossi, DVM, PHD, DipL ECPVS Head of Ploufragan-Plouzané-Niort Laboratory
Name (including Title and Position) of OIE Reference Expert:	Nicolas Eterradossi
Which of the following defines your laboratory? Check all that apply:	Governmental Research

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
AGID	yes	1218	0
Viral neutralization	yes	558	0
Direct diagnostic tests		Nationally	Internationally
Viral isolation or titration on embryonated eggs	yes	0	0
Viral isolation or titration on CEF	yes	4	0
Viral isolation or titration on lymphocytes	no	97	0
Viral detection by AC-ELISA	yes	0	0
Partial amplification of IBDV genome (RT-PCR for VP2 or VP1)	yes	41	0
q-RT-PCR quantification of IBDV genome	no	25	0
Complete IBDV genome sequencing (Sanger or NGS)	no	8	0
Preparation of viral stocks from infected bursae of Fabricius	yes	9	0

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
Viral antigen	AGID, ELISA	produced	2 mL	0	1	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐Middle East
Positive anti-IBDV serum	AGID, ELISA	Produced	1 mL	0	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
NEW ZEALAND	02/2020	0	6
ICELAND	02/2020	0	8

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
ICELAND	Sequencing strategy and description of detected virus strain	e-mail exchanges

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
Type I Interferon acts as a major barrier to the establishment of infectious bursal disease virus (IBDV) persistent infections	1 month	Sequence IBDV genomes from laboratory strain responsible for persistent versus lytic infection	Centro National de Biotecnologia, Madrid	SPAIN
Unified genetic classification of IBDV isolates	1 year	To develop genetic classification based on both genome segments.	Mymensingh University, Bangladesh	BANGLADESH
Ex vivo rescue of recombinant very virulent IBDV using a RNA polymerase II driven system and primary chicken bursal cells.	1 year	Reverse genetics-rescue of non-cell culture adapted IBDV strains ex vivo using lymphocytes.	Harbin Veterinary Research Institute	CHINA (PEOPLE'S REP. OF)

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?

No

If the answer is no, please provide a brief explanation of the situation:
No new relevant information received in 2020. Work with strains from 2019 requests continued but did not produced results warrant of publications.

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:
Publication in 2020 of paper accepted in 2019 about circulating IBDV strains in Egypt.

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: 3
-Ex vivo rescue of recombinant very virulent IBDV using a RNA polymerase II driven system and primary chicken

bursal cells.
pubmed: ibdv by Cubas-Gaona LL, Trombetta R, Courtillon C, Li K, Qi X, Wang X, Lotmani S, Keita A, Amelot M, Eterradossi N, Soubies SM
Sci Rep. 2020 Aug 6;10(1):13298. doi: 10.1038/s41598-020-70095-x.

- Type I Interferon acts as a major barrier to the establishment of infectious bursal disease virus (IBDV) persistent infections
Laura Broto, Nicolás Romero, Fernando Méndez, Elisabet Diaz-Beneitez, Oscar Candelas-Rivera, Daniel Fuentes, Liliana L Cubas-Gaona, Céline Courtillon, Nicolas Eterradossi, Sébastien M Soubies, Juan R Rodríguez, Dolores Rodríguez, José F Rodríguez
J Virol . 2020 Dec 16;JVI.02017-20. doi: 10.1128/JVI.02017-20. Online ahead of print.

Already mentioned 2019 report
-Continuous circulation of an antigenically modified very virulent infectious bursal disease virus for fifteen years in Egypt.
Samy A, Courtillon C, Briand FX, Khalifa M, Selim A, Arafa AES, Hegazy A, Eterradossi N, Soubies SM. Infect Genet Evol. 2020 Mar;78:104099. doi: 10.1016/j.meegid.2019.104099. Epub 2019 Oct 30. PMID: 31676447

b) International conferences: 0

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?

Yes

a) Technical visits: 0
b) Seminars: 0
c) Hands-on training courses: 0
d) Internships (>1 month): 1

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
d	Spain	1

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)
NF EN ISO/CEI 17025	Compliance certificate ISO 17025 2020.pdf

16. Is your quality management system accredited?

No

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

No

(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?

No

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

No

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
Reverse genetics rescue of non-cell culture adapted IBDV strains using ex vivo lymphocytes	idem	Harbin Veterinary Research Institute, PR China

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?

No

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

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?

No

25. Additional comments regarding your report:

No submission in 2020 of samples for international diagnosis: IBD is mostly a non-regulated disease and official diagnosis is not a requirement.
COVID-19 severely affected participation in international activities this year.