OIE Reference Laboratory Reports Activities

Activities in 2019

This report has been submitted : 2019-12-12 15:07:33

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Chronic wasting disease
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Name (including Title) of Head of Laboratory (Responsible Official):	Kristian Hoel
Name (including Title and Position) of OIE Reference Expert:	Sylvie L. Benestad
Which of the following defines your laboratory? Check all that apply:	Governmental

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
PrP ELISA	Yes	28153	52
PrP IHC	Yes	300	20
PrP WB	Yes	150	10
Direct diagnostic tests		Nationally	Internationally

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?

No

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
SWEDEN	March	0	3

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
SWEDEN	Sampling for further analysis of positive animals	mail
UNITED STATES OF AMERICA	Sampling for further analysis of positive animals	mail

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
CWD strain characterization	several years	Bioassay studies	ISS	ITALY
CWD strain characterization	several years	Bioassay studies	Colorado University	UNITED STATES OF AMERICA
CWD strain characterization	several years	Bioassay studies	INRA Toulouse	FRANCE
CWD strain characterization	several years	Bioassay studies	SISSA Madrid	SPAIN
CWD strain characterization	several years	Bioassay studies	CEA Jouy en Josas	FRANCE
CWD strain characterization	several years	Bioassay studies	UCL London	UNITED KINGDOM
CWD strain characterization	several years	Bioassay studies	CWRU Cleveland	UNITED STATES OF AMERICA
CWD strain characterization	several years	Bioassay studies	ANSES Lyon	FRANCE
CWD strain characterization	several years	Bioassay studies	Roslin Edinburgh	UNITED KINGDOM
CWD strain characterization	several years	Bioassay studies	Alberta University	CANADA

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:
The Norwegian Veterinary Institute performed the analyses for the National surveillance program on CWD with testing of 30 000 cervids in 2019.

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:
Our website includes an updated list over tested samples and results.

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: 5
- M. Güere, J. Vågeb, H. Tharaldsena, S.L. Benestad, T.Vikøren, K. Madslien, P. Hopp, C.M. Rolandsen, K.H. Røed, M.A. Tranulis. Chronic wasting disease associated with prion protein gene (PRNP) variation in Norwegian wild reindeer (Rangifer tarandus). Prion in Press

-A. MYSTERUD, K. MADSLIEN, H. VILJUGREIN, T. VIKØREN, R. ANDERSEN, M.E. GÜERE, S.L. BENESTAD, P. HOPP, O. STRAND, B. YTREHUS, K.H. RØED, C.M. ROLANDSEN, AND J. VÅGE.The demographic pattern of infection with chronic wasting disease in reindeer at an early epidemic stage. Ecophere in Press

-Bistaffa E, Vuong TT, Cazzaniga FA, Tran L, Salzano G, Legname G, Giaccone G, Benestad SL, Moda F. Use of different RT-QuIC substrates for detecting CWD prions in the brain of Norwegian cervids.Sci Rep. 2019 Dec 9;9(1):18595. doi: 10.1038/s41598-019-55078-x.

-Vikøren T, Våge J, Madslien KI, Røed KH, Rolandsen CM, Tran L, Hopp P, Veiberg V, Heum M, Moldal T, Neves CGD, Handeland K, Ytrehus B, Kolbjørnsen Ø, Wisløff H, Terland R, Saure B, Dessen KM, Svendsen SG, Nordvik BS, Benestad SL. First Detection of Chronic Wasting Disease in a Wild Red Deer (Cervus elaphus) in Europe.J Wildl Dis. 2019 Oct;55(4):970-972. Epub 2019 Mar 28.

-Gavin C, Henderson D, Benestad SL, Simmons M, Adkin A. Estimating the amount of Chronic Wasting Disease infectivity passing through abattoirs and field slaughter.
Prev Vet Med. 2019 May 1;166:28-38. doi: 10.1016/j.prevetmed.2019.02.016. Epub 2019 Mar 6.

b) International conferences: 10
-Benestad SL (Invited speaker).Prion Disease in animals and man, Uppsala (Sweden), 18th November 2019

-Benestad SL (Invited speaker), Tran L, Vuong T, Madslien K, Viljugrein H, Hopp P, Pirisinu L, Vaccari G, Bian J, Moreno JA, Kim S, Telling GC, Moda F, Bistaffa E, Diack A, Andréoletti O, Nonno R, Vikøren T, Våge J. CWD Norwegian experience, diagnosis and control, risk analysis and characteristics of the Norwegian CWD cases. 8th Iberian Prion Conference, Castelo Branco, Portugal, 25th October 2019

-Benestad SL (Invited speaker), Tran L, Saure B, Terland R, Svendsen S, Dessen K, Haugum M, Handeland K, Madslien K, Kolbjørnsen Ø, Wisløff H, Moldal T, Våge J, Pirisinu L, Vaccari G, Bian J, Moreno JA, Kim S, Spraker T, Telling GC R, Nonno R, Vikøren T. Chronic Wasting Disease in cervids.Summer School: Experimental models for neurodegenrative disorders. Lille (France) 5th July 2019

Benestad SL (Invited speaker), Vuong T, Tran L, Pirisinu L, Svendsen S, Dessen K, Madslien K, Kolbjørnsen Ø, Wisløff H, Moldal T, Vaccari G, Bian J, Moreno JA, Kim S, Telling GC, Vikøren T, Nonno R, Våge J. Chronic wasting Disease in cervids. NSVP, Trondheim (Norway) 13th June 2019.

Sylvie L. Benestad (Tutor). Chronic Wasting in Europe: EU provisions and monitoring programme. Better Training for safer food.
Porto (Portugal) 8th Feb 2019,
Ljubljana (Slovenia) 22nd March 2019,
Rennes (France) 17th May 2019,
Zagreb (Croatia) 27 September 2019,
Porto (Portugal) 22nd November 2019.

-Benestad SL (Invited speaker), Vuong T, Tran L, Pirisinu L, Svendsen S, Dessen K, Madslien K, Kolbjørnsen Ø, Wisløff H, Moldal T, Vaccari G, Bian J, Moreno JA, Kim S, Andreoletti O, Telling GC, Vikøren T, Nonno R, Våge J. CWD in cervids: from the USA to Europe. Malattie da prioni nell'uomo enegli animali: aggiornamento. Brescia (Italy) 1st March 2019

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?

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)
ISO/IEC17025	Akkrediteringsdokument.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
PrP TeSeE ELISA (Bio-Rad)	Norwegian accreditation (NA)
PrP HerdChek ELISA (IDEXX)	NA
PrP TeSeE Western Blot (Bio-Rad)	NA

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?

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
Comparaison between North American and Norwegian CWD isolates	Characterization of CWD strains	Canadian Food Inspection Agency, Otawa, Canada

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: