

# OIE Reference Laboratory Reports Activities

## *Activities in 2020*

**This report has been submitted : 2020-12-20 03:12:35**

<b>Name of disease (or topic) for which you are a designated OIE Reference Laboratory:</b>	Surra (Trypanosoma evansi)
<b>Address of laboratory:</b>	Inada-cho Nishi 2-13 Obihiro, Hokkaido 080-8555 JAPAN
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<b>Name (including Title) of Head of Laboratory (Responsible Official):</b>	Dr. Keisuke Suganuma, Assistant Prof., D.V.M., Ph.D.
<b>Name (including Title and Position) of OIE Reference Expert:</b>	Dr. Noboru Inoue, Executive Vice President, D.V.M., Ph.D.
<b>Which of the following defines your laboratory? Check all that apply:</b>	Academic

**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			
Direct diagnostic tests			
PCR	Yes	326	782
Microscopic test of blood smear	Yes	326	1

**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?

No

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
JAPAN	Advice to the Animal Quarantine Service, MAFF regarding the diagnosis of surra.	Remote assistance
JAPAN	Advice to the private veterinary hospital regarding the diagnosis of surra.	Remote assistance
UNITED ARAB EMIRATES	Advice to the Anima Wealth Veterinary Laboratories, Abu Dhabi Agriculture and Food Safety Authority regarding the diagnosis of surra.	Remote assistance
UNITED STATES OF AMERICA	Advice to the Air Animal Inc., Tampa, FL regarding the diagnosis of surra.	Remote assistance
UNITED KINGDOM	Advice to the Surveillance and Laboratory Services Department, Animal and Plant Health Agency (APHA), Surrey, KT15 regarding the diagnosis of surra.	Remote assistance
UNITED STATES OF AMERICA	Advice to the Pack Your Pets Pet Travel / Heartland Animal Hospital, Wichita, KS regarding the diagnosis of surra.	Remote assistance
UNITED STATES OF AMERICA	Advice to the PenderAIR, Chantilly, VA regarding the diagnosis of surra.	Remote assistance

**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
Characterization of Trypanosoma sp. isolated from dourine cases in Sudan.	1 year	Molecular characterization of trypanosome species isolated from dourine cases in Sudan.	Sudan University of Science and Technology	SUDAN
Epidemiological studies on animal trypanosomosis in domestic animals in Philippine.	3 years	Epidemiological surveillance of animal trypanosomosis in domestic animals by means of molecular tests.	Cebu Technological University	PHILIPPINES
Epidemiological studies on animal trypanosomosis in domestic animals in Paraguay.	2 years	Epidemiological surveillance of animal trypanosomosis in domestic animals by means of molecular tests.	Centro de Diagnostico Veterinario	PARAGUAY

**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:
In collaboration with institutions shown in the list of ToR5, We had conducted country wide epidemiological study for animal trypanosomoses.

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:
The epizootiological data was disseminated as scientific articles listed below (ToR6, 13).

**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: 9

1. Nurbek, S. et al. (2020) Isolation and evaluation of trypanocidal activity of sesquiterpenoids, flavonoids, and lignans in *Artemisia sieversiana* collected in Mongolia. *Journal of natural medicines* 74(4) 750 - 757.
2. Buyankhishig, B. et al. (2020) Hyaluronidase inhibitory saponins and a trypanocidal isoflavonoid from the aerial parts of *Oxytropis lanata*. *Fitoterapia* 145 104608 - 104608.
3. Tanaka, Y. et al. (2020) Immunohistochemical phenotyping of macrophages and T lymphocytes infiltrating in peripheral nerve lesions of dourine-affected horses. *The Journal of veterinary medical science*.
4. Mizushima, D. et al. (2020) Nationwide serological surveillance of non-tsetse-transmitted horse trypanosomoses in Mongolia. *Parasite epidemiology and control* 10 e00158.
5. Elata, A., et al. (2020) First molecular detection and identification of *Trypanosoma evansi* in goats from Cebu, Philippines using a PCR-based assay. *Veterinary parasitology, regional studies and reports* 21 100414 - 100414.
6. Davkharbayar, B. et al. (2020) Treatment Efficiency of Combination Therapy With Diminazene Aceturate and Quinapyramine Sulfate in a Horse With Dourine. *Journal of equine veterinary science* 87 102905 - 102905.
7. Elata, A. et al. (2020) Serological and molecular detection of selected hemoprotozoan parasites in donkeys in West Omdurman, Khartoum State, Sudan. *The Journal of veterinary medical science* 82(3) 286 - 293.
8. Mossaad, E. et al. (2020) Prevalence of different trypanosomes in livestock in Blue Nile and West Kordofan States, Sudan. *Acta tropica* 203 105302 - 105302.
9. Kume, A. et al. (2020) Effect of vegetable oils on the experimental infection of mice with *Trypanosoma congolense*. *Experimental parasitology* 210 107845 - 107845.

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?

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	ISO17025_2017ver.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
PCR test	Perry Johnson Laboratory Accreditation, Inc. (PJLA)

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
OIE Non Tsetse Transmitted Animal Trypanosomoses Network	To create awareness on NTTAT as high impact neglected veterinary diseases To develop tools that enhance countries' capacity for surveillance of the NTTAT in view of improved disease reporting To foster collaborative research on identified topics To respond to needs for scientific evidence as expressed by endemic countries and/or organisations engaged in NTTAT control To fill gaps in knowledge on disease epidemiology, pathogenesis, drug efficacy, vaccines, modes of transmission, reservoir hosts and vector control	OIE Reference Laboratory for Surra Prof. Philippe BÜSCHER Institute of Tropical Medicine Antwerp Department of Parasitology Nationalestraat 155 B-2000 Antwerpen BELGIUM Tel: +32-3 247.63.71 Fax: +32-3 247.63.73 Email: pbuscher@itg.be OIE Reference Laboratory for Surra Prof. Noboru INOUE Obihiro University of Agriculture and Veterinary Medicine Inadacho Nishi 2-11 Obihiro, Hokkaido 080-8555 JAPAN Tel: +81-155 49.52.07 Fax: +81-155 49.52.05 Email: ircpmi@obihiro.ac.jp Prof. Keisuke SUGANUMA National Research Center for Protozoan Diseases Obihiro University of Agriculture and Veterinary Medicine Inadacho Nishi 2-13 Obihiro, Hokkaido 080-8555 JAPAN Tel: +81-155 49.56.47 Fax: +81-155 49.56.43 Email: k.suganuma@obihiro.ac.jp OIE Reference Laboratory for Animal trypanosomoses of African origin Dr Marc DESQUESNES UMR177-Intertryp (CIRAD-IRD) CIRAD-bios Campus international de Baillarguet TA A-17 / G 34398 Montpellier Cedex 5 FRANCE Tel: +33-(0)4 67 59 37 24 Fax: +33-(0)4 67 59 37 98 Email: marc.desquesnes@cirad.fr

***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?

Yes

Kind of consultancy	Location	Subject (facultative)
Non-tsetse transmitted animal trypanosomosis network	Paris	A worldwide network of OIE Non Tsetse Transmitted Animal Trypanosomoses laboratories has been instituted under the auspices of the OIE in support of a global strategy for the control of NTTAT. This network connects the main research institutes and laboratories throughout the world having a reliable experience in the study of Non Tsetse Transmitted Animal Trypanosomoses, including the four OIE Reference Laboratories for Trypanosomoses.
Drafting a case definition for surra and dourine	Paris	To draft or revise the case definition of certain OIE-listed diseases.

25. Additional comments regarding your report:

None