

OIE Reference Laboratory Reports Activities

Activities in 2021

This report has been submitted : 2022-01-04 09:09:03

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Surra (Trypanosoma evansi)
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Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Keisuke Suganuma, Assistant Prof., D.V.M., Ph.D.
Name (including Title and Position) of OIE Reference Expert:	Dr. Noboru Inoue, Executive Vice President, D.V.M., Ph.D.
Which of the following defines your laboratory? Check all that apply:	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	264	381
Microscopic test of blood smear	Yes	264	50

**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
ARGENTINA	Advice to the National Service of Health and Agro-Food Quality regarding procedures of ELISA test.	Remote assistance
BOLIVIA	Advice to the Centro de Biotecnología y Nanotecnología, BioNanoTECH Research Center, Universidad Mayor de San Simón regarding PCR test.	Remote assistance
IRAN	Advice to the Faculty of Veterinary Science, Bu-Ali Sina University regarding in vitro cultivation of trypanosomes.	Remote assistance
JAPAN	Advice to the Japan Racing Association regarding available trypanosome strains.	Remote assistance
SAUDI ARABIA	Advice to the ARTAT enterprise regarding detection of <i>T. evansi</i> .	Remote assistance
UNITED STATES OF AMERICA	Request of photos of <i>T. equiperdum</i> and dourine horses from Gluck Equine Research Center, University of Kentucky.	Remote assistance
UNITED STATES OF AMERICA	Advice to the dog owner regarding diagnosis of surra.	Remote assistance
UNITED STATES OF AMERICA	Advice to the private veterinary hospital (Massachusetts) regarding diagnosis of surra.	Remote assistance
UNITED STATES OF AMERICA	Advice to the dog owner regarding diagnosis of surra.	Remote assistance
UNITED STATES OF AMERICA	Advice to the private veterinary hospital (Georgia) regarding 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 Paraguay.	4 year	Epidemiological surveillance of animal trypanosomosis in domestic animals by means of molecular tests.	Centro de Diagnostico Veterinario	PARAGUAY
Development of drugs for African trypanosomosis.	4 year	Drug development.	North-West University	SOUTH AFRICA

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 of animal trypanosomosis.

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: 5

1. Adeyemi, O. S., et al. (2021). New series of imidazoles showed promising growth inhibitory and curative potential against Trypanosoma infection. Yale Journal of Biology and Medicine, 94(2), 199-207.

2. Munsimbwe, L. et al. (2021). In vitro and in vivo trypanocidal efficacy of synthesized nitrofurantoin analogs. Molecules, 26(11) doi:10.3390/molecules26113372

3. Narita, K. et al. (2021). Synthesis and evaluation of trypanocidal activity of derivatives of naturally occurring 2,5-diphenyloxazoles. *Bioorganic and Medicinal Chemistry*, 42 doi:10.1016/j.bmc.2021.116253
4. Sulistyowaty, M. I., et al. (2021). Six new phenylpropanoid derivatives from chemically converted extract of *alpinia galanga* (L.) and their antiparasitic activities. *Molecules*, 26(6) doi:10.3390/molecules26061756
5. Tanaka, Y. et al. (2021). Pathology of female mice experimentally infected with an in vitro cultured strain of *trypanosoma equiperdum*. *The Journal of Veterinary Medical Science*, 83(8), 1212-1218. doi:10.1292/jvms.21-0056

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)
ISO17025:2017	iso-Eng.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 Dr. 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)
OIE ad hoc Group on surra and dourine.	Remote	The purpose of the ad hoc Group on surra and dourine is to continue the work initiated in 2015 and draft a Terrestrial Code Chapter on surra and update current Terrestrial Code Chapter 12.3 'Dourine'.

25. Additional comments regarding your report:

None