OIE Reference Laboratory Reports Activities

Activities in 2020

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Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Enzootic bovine leukosis
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Name (including Title) of Head of Laboratory (Responsible Official):	Krzysztof Niemczuk, DVM,PhD,Professor, Director general of NVRI
Name (including Title and Position) of OIE Reference Expert:	Jacek Kuzmak, DVM, PhD, Professor, Head of Department of Biochemistry of NVRI
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
ELISA (blocking, screening)	Yes	633	0
Direct diagnostic tests		Nationally	Internationally
PCR (nested PCR, real-time PCR)	Yes	5	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?

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
FRANCE	October	50	samples of genomic DNA

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
FRANCE	Provision of 10 genomic DNA samples from blood leukocytes of BLV infected cows for validation of qPCR test	By regular mail
MOLDOVA	Provision of data on diagnostic performances of AGID and ELISA tests for serological diagnosis of infection with BLV	By e-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
Molecular analysis of proviral DNA in BLV infected cattle from pakistan	4 months	Sequencing and sequence analysis of proviral DNA (33 samples)	National Veterinary Laboratories, Islamabad	PAKISTAN
Molecular analysis of proviral DNA in BLV infected cattle from Kazahstan	6 months	Detection by PCR of proviral DNA in 169 DNA samples and sequencing and sequence analysis of proviral DNA in 38 samples	Kazah Scientific Research Veterinary Institute, Almaty	KAZAKHSTAN

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 serological survey for BLV infection in Pakistan in total, 1380 cattle and 92 water buffalo serum samples were tested by ELISA. For molecular analysis of BLV infection in dairy cows from Kazahstan 237 blood samples were collected.

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:
It is intended to publish the data from these studies in peer-reviewed international journal

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
a)

1. Pluta A, Willems L, Douville RN, Kuźmak J. Effects of Naturally Occurring Mutations in Bovine Leukemia Virus 5'-LTR and Tax Gene on Viral Transcriptional Activity. Pathogens. 2020 Oct 13;9(10):836. doi: 10.3390/pathogens9100836.

2. Pluta A, Jaworski JP, Douville RN. Regulation of Expression and Latency in BLV and HTLV. Viruses. 2020 Sep 25;12(10):1079. doi: 10.3390/v12101079.

b) International conferences: 0
N/A

c) National conferences: 0
Lecture on veterinary specialization training "Current epidemiological situation of infection with BLV in Poland". Pulawy, NVRI, November 22, 2020.

d) Other:
(Provide website address or link to appropriate information) 0
N/A

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)
PN-EN ISO/IEC 17025:2005	scope of accreditation nr AB 1090.pdf
PN-EN ISO/IEC 17025:2005	certyfikat nr AB 1090.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
ELISA	PCA (Polish Accreditation Center) which is a part of ALAC

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
Enzootic Bovine Leukosis: OIE Laboratory Twinning Program between Poland and Kazahstan with the collaboration of the United Kingdom	To develop a delivery plan for KazSRVI to be able to provide key elements of an OIE Reference Laboratory mandate in respect to EBL. Identify key areas for support from APHA and NVRI in order to strengthen and capacity build KazSRVI to deliver a range of functions linked to reference activity - control and standardization of diagnostic reagents, confirmatory serological tests, BLV molecular detection and characterization. Develop the capability to conduct regional quality assurance ring trials. Ensure good laboratory practice consistent with establishing quality management systems within KazSRVI as required. Ensure KazSRVI possess the range of skills, facilities and reagents in order to support the region for confirmatory diagnosis of EBL.	OIE Reference Laboratory for Enzootic Bovine Leukosis - APHA Weybridge, UK

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[1]	No. participating laboratories	Region(s) of participating OIE Member Countries
Harmonization of ELISA for serological diagnosis of infection with BLV	2	☐Africa ☐Americas ☐Asia and Pacific ☒Europe ☐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?

No

25. Additional comments regarding your report:

N/A