# OIE Reference Laboratory Reports Activities

## *Activities in 2019*

### This report has been submitted : 2020-01-14 08:40:17

| | |
|---|---|
| **Name of disease (or topic) for which you are a designated OIE Reference Laboratory:** | Enzootic bovine leukosis |
| **Address of laboratory:** | National Veterinary Research Institute (NVRI) Al. Partyzantow 57 24-100 Pulawy POLAND |
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| **Name (including Title) of Head of Laboratory (Responsible Official):** | Krzysztof Niemczuk, DVM, PhD, ScD, Director General of NVRI |
| **Name (including Title and Position) of OIE Reference Expert:** | Jacek Kuzmak, DVM, PhD, Professor, Head of Department of Biochemistry, 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 | 944 | 22 |
| Agar Gel Immunodiffusion test (AGID) | Yes | 47 | 16 |
| Direct diagnostic tests | | Nationally | Internationally |
| PCR (nested PCR, real-time PCR) | Yes | 15 | 71 |

### *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 |
|---|---|---|---|
| ESTONIA | March, October | 0 | 3 blood samples |
| ESTONIA | October | 0 | 1 serum sample |

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 |
|---|---|---|
| DENMARK | Provision of BLV positive control samples (PBLs samples from 10 BLV infected cows and frozen tissue samples from 8 BLV infected cows) to validate qPCR method | By regular mail |
| FRANCE | Provision of data on molecular structure of pBLV1 control plasmid DNA | 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 | 3 months | Sequencing and sequence analysis of proviral DNA (22 samples ) | National Veterinary Laboratories, Islamabad | PAKISTAN |
| Molecular analysis of proviral DNA in BLV infected cattle from Kazahstan | 3 months | Sequencing and sequence analysis of proviral DNA (68 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: |
|---|
| Blood was taken from a total 1489 animals (1380 dairy cattle and bulls, 92 buffalo and 17 camels), randomly selected from 451 farms,from Pakistan. BLV specific antibodies were found in 3.8% animals from 1.4% herds. |

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: |
|---|
| Blood was taken from a total 1489 animals (1380 dairy cattle and bulls, 92 buffalo and 17 camels), randomly selected from 451 farms,from Pakistan. The BLV antobodies were found in 3.8% samples from 1.4% herds. 22 DNA samples from BLV positive cows were sequenced. |

**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: 1
Rola-Łuszczak M., Grabowska A., Szewczyk B., Kuźmak J.: Baculovirus expression and potential diagnostic application of the gp51 envelope glycoprotein of genetic mutants of the bovine leukaemia virus Journal of Veterinary Research 2019, 63, 1-6 DOI:10.2478/jvetres-2019-0020

b) International conferences: 1
Marzena Rola-Łuszczak, Sakhawat Ali, Nazia Bibi, Jacek Kuźmak,
MOLECULAR ANALYSIS OF BOVINE LEUKEMIA VIRUS ISOLATES CIRCULATING IN CATTLE FROM PAKISTAN
Retropath 2019 31st International Workshop on Retroviral Pathogenesis, October 13-16, 2019,Padwa, Italy

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: 2
b) Seminars: 0
c) Hands-on training courses: 0
d) Internships (>1 month): 0

| 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 |
|---|---|---|
| a | Kazahstan | 2 |

## *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 | appendix 1-1.pdf |
| PN-EN ISO/IEC 17025:2005 | appendix 2-1.pdf |

16. Is your quality management system accredited?

Yes

| Test for which your laboratory is accredited | Accreditation body |
|---|---|
| ELISA | PCA (polish accreditation Center) 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?

No

## *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 | 12 | ☐Africa<br>☐Americas<br>☐Asia and Pacific<br>☒Europe<br>☐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: