OIE Reference Laboratory Reports Activities Activities in 2020

This report has been submitted : 2021-01-24 18:07:19

| Name of disease (or topic) for which you are a designated OIE Reference Laboratory: | Aujeszky s disease |
|---|---|
| Address of laboratory: | USDA, APHIS, Veterinary Services 1920 Dayton Avenue Ames, Iowa 50010 UNITED STATES OF AMERICA |
| Tel.: | +1 515 337 7551 |
| Fax: | +1-515 337 6508 |
| E-mail address: | NVSL.DVL.Heads@usda.gov |
| Website: | www.aphis.usda.gov/nvsl |
| Name (including Title) of Head of Laboratory (Responsible Official): | Dr. Suelee Robbe-Austerman, Director, National Veterinary Services Laboratories, DB, VS, APHIS, USDA |
| Name (including Title and Position) of OIE Reference Expert: | Dr. Sabrina Swenson, Diagnostic Virology Laboratory, National Veterinary Services Laboratories, DB, VS, APHIS, USDA |
| 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 | |
| gB ELISA | yes | 1,036 | 0 | |
| g1 ELISA | yes | 101 | 0 | |
| Automated latex agglutination (Autolex) | no | 23 | 0 | |
| Virus Neutralization | yes | 32 | 103 | |
| Direct diagnostic tests | | Nationally | Internationally | |
| Virus Isolation | yes | 5 | 0 | |

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?

Yes

| Type of reagent available | Related diagnostic test | Produced/ provide | Amount supplied nationally (ml, mg) | Amount supplied internationally (ml, mg) | No. of recipient OIE Member Countries | Region of recipients |
|---------------------------------|-------------------------------------|----------------------|--|---|---|---|
| Reference virus | VN | provided | 0 | 0 | 0 | □ Africa □ America s □ Asia and Pacific □ Europe □ Middle East |
| Reference antisera | several | provided | 80 | 0 | 1 | □ Africa ∞ America s □ Asia and Pacific □ Europe □ Middle East |
| Positive control serum | VN | provided | 82 | 4 | 2 | □ Africa △ America s ○ Asia and Pacific □ Europe □ Middle East |
| FA conjugate | Virus isolation | provided | 17 | 0 | 1 | □ Africa △ America s □ Asia and Pacific □ Europe □ Middle East |
| ALA Test Panel | Automated latex agglutination | provided | 20 | 0 | 1 | □Africa ∞America s □Asia and Pacific □Europe □Middle East |
| gB ELISA Test Panel | gB ELISA | provided | 90 | 0 | 1 | □Africa ∞America s □Asia and Pacific □Europe □Middle East |

| g1 ELISA Test Panel | g1 ELISA | provided | 140 | 0 | 1 | Africa America S Asia and Pacific Europe Middle East |
|---------------------------------------|----------|----------|-----|----|----|--|
| Virus Neutralization Test Panel | VN | provided | 20 | 10 | 20 | □ Africa > America s □ Asia and Pacific □ Europe □ Middle East |

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 |
|--|--------------|--|--|
| DOMINICAN (REP.) | August | 103 | 0 |

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

No

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?

No

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?

No

If the answer is no, please provide a brief explanation of the situation:

NVSL works with another unit within USDA for distribution of analyzed data.

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

No

If the answer is no, please provide a brief explanation of the situation:

NVSL works with another unit within USDA for distribution of analyzed data.

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 Submitted for publication: Perez O, Pinette M, Tong G, Zhou E, Bai J, Peddireddi L, Schiltz J, Shamuganatham K, Tell RM, Ambagala A. A single-tube triplex real-time quantitative PCR assay for differential detection of highly virulent Chinese strains of pseudorabies virus.

Cheng, Ting-yu; Buckley, Alexandra; Van Geelen, Albert; Lager, Kelly; Henao-Diaz, Yuly Alexandra; Poonsuk, Korakrit; Piñeyro, Pablo; Baum, David ; Ji, Ju; Wang, Chong; Main, Rodger; Zimmerman, Jeff; Giménez-Lirola, Luis "Proof of concept: Detection of pseudorabies virus antibody in swine oral fluid using a whole virus indirect ELISA" JVDI (2020) Jul;32(4):535-541

b) International conferences: 4

c) National conferences: 1 October 2020: VIRTUAL United States Animal Health Association and American Association of Veterinary Laboratory Diagnosticians Annual Meeting

d) Other:

(Provide website address or link to appropriate information) 3 USDA Pseudorabies Surveillance https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/swine-disease-information/s wine-pseudorabies/swine-pseudorabies

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 17025 Biological Testing | 2020 A2LA Accreditation Certificate.pdf |

16. Is your quality management system accredited?

Yes

| Test for which your laboratory is accredited | Accreditation body | |
|---|--------------------|--|
| Virus Isolation American Association for Laboratory Accreditation (| | |
| Virus Neutralization | A2LA | |
| gB ELISA | A2LA | |
| g1 ELISA | A2LA | |

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?

No

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: <u>http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing</u> see point 1.3

| Purpose for inter-laboratory test comparisons ¹ | No. participating laboratories | Region(s) of participating OIE Member Countries |
|---|---|--|
| Administered by NVSL and required to conduct official testing in the U.S.; shipped internationally by request | Official PT not offered in 2020; interim operator approval was conducted for 7 laboratories | □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:

The Diagnostic Virology Laboratory of the National Veterinary Services Laboratories is undergoing restructuring and will be identifying new subject matter experts. The COVID-19 pandemic has impacted national and international laboratory activities and sample receipt.