WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted: 31 mai 2023 09:36

Laboratory Information

<table>
<thead>
<tr>
<th>Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:</th>
<th>Salmonellosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of laboratory:</td>
<td>Animal and Plant Quarantine Agency (APQA) Ministry of Agriculture, Food and Rural Affairs (MAFRA) 177, Hyeoksin 8-ro, Gimcheon-si, Gyeongsangbuk-do, 39660, KOREA (REP. OF)</td>
</tr>
<tr>
<td>Tel.:</td>
<td>+82-54-912-0818</td>
</tr>
<tr>
<td>E-mail address:</td>
<td><a href="mailto:kangmskr@korea.kr">kangmskr@korea.kr</a></td>
</tr>
<tr>
<td>Website:</td>
<td><a href="http://www.qia.go.kr">http://www.qia.go.kr</a></td>
</tr>
<tr>
<td>Name (including Title) of Head of Laboratory (Responsible Official):</td>
<td>Dr. Bong-Kyun Park, DVM, PhD, Commissioner, APQA</td>
</tr>
<tr>
<td>Name (including Title and Position) of WOAH Reference Expert:</td>
<td>Min-Su Kang, DVM, PhD, Senior Veterinary Researcher, Chief of Avian Bacteriology Laboratory, Avian Disease Research Division, APQA</td>
</tr>
<tr>
<td>Which of the following defines your laboratory? Check all that apply:</td>
<td>Governmental</td>
</tr>
</tbody>
</table>

TOR1: Diagnostic Methods

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

<table>
<thead>
<tr>
<th>Diagnostic Test</th>
<th>Indicated in WOAH Manual (Yes/No)</th>
<th>Total number of test performed last year</th>
<th>Nationally</th>
<th>Internationally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect diagnostic tests</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct diagnostic tests</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolation and identification</td>
<td>Yes</td>
<td>202</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Serotyping</td>
<td>Yes</td>
<td>202</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>PFGE</td>
<td>No</td>
<td>68</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAH?
   No

3. Did your laboratory supply standard reference reagents (non-WOAH-approved) and/or other diagnostic reagents to WOAH Members?
   Yes

<table>
<thead>
<tr>
<th>TYPE OF REAGENT AVAILABLE</th>
<th>RELATED DIAGNOSTIC TEST</th>
<th>PRODUCED/ PROVIDE</th>
<th>AMOUNT SUPPLIED NATIONALLY (ML, MG)</th>
<th>AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)</th>
<th>NO. OF RECIPIENT WOAH MEMBER COUNTRIES</th>
<th>COUNTRY OF RECIPIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR kit</td>
<td>Differential identification of Salmonella Gallinarum and Pullorum</td>
<td>Provide</td>
<td>4,300 tests (86 ml)</td>
<td>0</td>
<td>1</td>
<td>Asia and Pacific</td>
</tr>
</tbody>
</table>

4. Did your laboratory produce vaccines?
   No

5. Did your laboratory supply vaccines to WOAH Members?
   No

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?
   No

7. Did your laboratory validate diagnostic methods according to WOAH Standards for the designated pathogen or disease?
   No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?
   No

9. Did your laboratory validate vaccines according to WOAH Standards for the designated pathogen or disease?
   No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAH Members?
    Yes
11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAH Member?
Yes

<table>
<thead>
<tr>
<th>NAME OF THE WOAH MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY</th>
<th>PURPOSE</th>
<th>HOW THE ADVICE WAS PROVIDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALAYSIA</td>
<td>Analysis of antimicrobial resistance patterns</td>
<td></td>
</tr>
</tbody>
</table>

**TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES**

12. Did your laboratory participate in international scientific studies in collaboration with WOAH Members other than the own?
Yes

<table>
<thead>
<tr>
<th>Title of the study</th>
<th>Duration</th>
<th>PURPOSE OF THE STUDY</th>
<th>PARTNERS (INSTITUTIONS)</th>
<th>WOAH MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>The molecular epidemiology of Newcastle Disease, Infectious Bronchitis, and Salmonellosis in Malaysia</td>
<td>January-December</td>
<td>The extension of understanding on the epidemiology of poultry diseases in Southeast Asia</td>
<td>Universiti Putra Malaysia</td>
<td>MALAYSIA</td>
</tr>
</tbody>
</table>

**TOR6: EPIZOOLOGICAL DATA**

14. Did your Laboratory collect epidemiological data relevant to international disease control?
Yes

**IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:**

Antimicrobial resistance of Salmonella isolated from chicken meat in Malaysia

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?
Yes

**IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:**

1. Genetic characterization of Salmonella Gallinarum isolated from chickens using whole genome sequencing
2. Genotypic analysis of recent isolates of Salmonella Typhimurium from poultry in Korea
3. Whole genome sequencing analysis of recent isolates of Salmonella Enteritidis from poultry in Korea

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)
a) Articles published in peer-reviewed journals:

1

b) International conferences:

0

c) National conferences:

3
3. Whole genome sequencing analysis of recent isolates of Salmonella Enteritidis from poultry in Korea. Daejeon, Korea, Nov. 3 - Nov. 4, 2022.

d) Other (Provide website address or link to appropriate information):

0

**TOR7: SCIENTIFIC AND TECHNICAL TRAINING**

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH Members? Yes

a) Technical visit : 0
b) Seminars : 5
c) Hands-on training courses: 0
d) Internships (>1 month) 0

<table>
<thead>
<tr>
<th>Type of technical training provided (a, b, c or d)</th>
<th>Country of origin of the expert(s) provided with training</th>
<th>No. participants from the corresponding country</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>The Philippines</td>
<td>10</td>
</tr>
<tr>
<td>b</td>
<td>Sri Lanka</td>
<td>4</td>
</tr>
<tr>
<td>b</td>
<td>Malaysia</td>
<td>2</td>
</tr>
<tr>
<td>b</td>
<td>Vietnam</td>
<td>2</td>
</tr>
<tr>
<td>b</td>
<td>Kazakhstan</td>
<td>5</td>
</tr>
</tbody>
</table>

**TOR8: QUALITY ASSURANCE**

18. Does your laboratory have a Quality Management System? Yes
19. Is your quality management system accredited?
   Yes

<table>
<thead>
<tr>
<th>Test for which your laboratory is accredited</th>
<th>Accreditation body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of the agent (isolation and identification, serotyping)</td>
<td>Korea Laboratory Accreditation Scheme (KOLAS)</td>
</tr>
<tr>
<td>Serological tests (RSA)</td>
<td>KOLAS</td>
</tr>
</tbody>
</table>

20. Does your laboratory maintain a “biorisk management system” for the pathogen and the disease concerned?
   Yes

Under the Laboratory Safety Management System, our laboratory complies with Biosafety Level II (BSL-2) practices for Salmonella with daily checkups.

**TOR9: SCIENTIFIC MEETINGS**

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAH?
   No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAH?
   No

**TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES**

23. Did your laboratory exchange information with other WOAH Reference Laboratories designated for the same pathogen or disease?
   Yes

24. Are you a member of a network of WOAH Reference Laboratories designated for the same pathogen?
   No

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen?
   Yes

<table>
<thead>
<tr>
<th>PURPOSE OF THE PROFICIENCY TESTS: 1</th>
<th>ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/PARTICIPANT)</th>
<th>NO. PARTICIPANTS</th>
<th>PARTICIPATING WOAH REF. LABS/ ORGANISING WOAH REF. LAB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity and specificity of Salmonella identification from poultry-associated samples</td>
<td>Participant</td>
<td>100</td>
<td>Various/Animal and Plant Health Agency (United Kingdom)</td>
</tr>
</tbody>
</table>

26. Did your laboratory collaborate with other WOAH Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?
   No

**TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING**
27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen?
No

**TOR12: EXPERT CONSULTANTS**

28. Did your laboratory place expert consultants at the disposal of WOAH?
No

29. Additional comments regarding your report:
No