WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted: 25 avril 2023 15:02

Laboratory Information

| Name of disease (or topic) for which you are a designated WOAH Reference Laboratory: | Avian influenza |
| Address of laboratory: | North 20, West 10 Kita-Ku Sapporo 001-0020 JAPAN |
| Tel.: | +81-11 706 52 07 |
| E-mail address: | sakoda@vetmed.hokudai.ac.jp |
| Website: |  |
| Name (including Title) of Head of Laboratory (Responsible Official): | Yoshihiro Sakoda (Professor) |
| Name (including Title and Position) of WOAH Reference Expert: | Yoshihiro Sakoda (Professor) |
| Which of the following defines your laboratory? Check all that apply: | Academic institution |

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>HI test H5</td>
<td>YES</td>
<td>50</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>HI test H7</td>
<td>YES</td>
<td>50</td>
<td>0</td>
<td></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 (nonWOAH-approved) and/or other diagnostic reagents to WOAH Members?
No

4. Did your laboratory produce vaccines?
Not applicable

5. Did your laboratory supply vaccines to WOAH Members?
Not applicable

**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?
No

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>VIETNAM</td>
<td>Improvement of diagnosis of avian influenza</td>
<td>In loco and remote assistance</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
### Title of the study | Duration | PURPOSE OF THE STUDY | (INSTITUTIONS) | OTHER THAN YOUR COUNTRY
---|---|---|---|---
Surveillance of avian influenza | 22 years | Monitoring of avian influenza | State Central Veterinary Laboratory | MONGOLIA
Surveillance of avian influenza | 14 years | Monitoring of avian influenza | Department of Animal Health | VIETNAM
Surveillance of avian influenza | 6 years | Monitoring of avian influenza | Central Veterinary Laboratory | CONGO (REP. OF THE)

### 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:**

Knowledge, attitude, and practice (KAP) analysis of avian influenza epidemic in Vietnam

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:**

Epidemiological information of high pathogenicity avian influenza in the Far East, including Japan, Sakhalin, in 2021 was shared through the scientific article.

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:

12


pathogenic avian influenza virus infection. Viruses 14, 111.


b) International conferences:

6

Hiono T. Ezo red foxes and tanukis were naturally susceptible for the infection of highly pathogenic avian influenza viruses. Sialoglyco. 5-8 Sep., 2022 (Nagoya, Japan)

Kobayashi D. Glycoscientific approaches to understand the ecology of avian influenza viruses. Sialoglyco. 5-8 Sep., 2022 (Nagoya, Japan)

Sakoda Y. Updates on avian influenza in Japan in 2021-2022 winter. WOAH (OIE) Regional Expert Group Meeting for diseases of poultry in Asia and the Pacific Region. 31 Oct., 2022 (Geelong, Australia)

Sakoda Y. Information sharing of avian diseases in East Asia sub-region. WOAH (OIE) Regional Expert Group Meeting for diseases of poultry in Asia and the Pacific Region. 31 Oct., 2022 (Geelong, Australia)

Sakoda Y. Current status and challenge for the control of avian influenza. 21st Federation of Asian Veterinary Associations Congress. 11 Nov., 2022 (Fukuoka, Japan)

Sakoda Y. Detection of H5Nx HPAI viruses from poultry and wild animals in winters 2021-2022 and 2022-2023 in Japan. IV International scientific conference “The Impact of Climate Change on Biological Diversity and the Spread of Viral Infections of Animals in Eurasia” 6 Dec., 2022 (online)
c) National conferences:

8
Sakoda Y, Efficacy of human anti-influenza drug in endangered birds. Annual meeting for Japan Veterinary Medical Association in 2022 (online presentation, Jan. 2022)

Hiono T. Detection of high pathogenicity avian influenza viruses from wild birds and mammals in the winter of 2021-2022, Hokkaido. Hokkaido Branch of the Japanese Society for Virology. 2-3 Jul., 2022 (Sapporo, Japan)

Sakoda Y. Characterization of H5N1 high pathogenicity avian influenza viruses found in wild birds and mammals in the winter of 2021-2022, Hokkaido and future preparedness. Hokkaido Branch of the Japanese Society on Poultry Diseases. 15 Jul., 2022 (Sapporo, Japan)

Isoda N. Genetic analyses of high pathogenicity avian influenza viruses isolated from wild birds in the winter of 2021-2022, Hokkaido, and trial treatment against its infection in raptors. 165th annual meeting for the Japanese Society of Veterinary Science. 6-8 Sep., 2022 (online)

Hiono T. Isolation of high pathogenicity avian influenza viruses from Ezo red fox and tanuki. 165th annual meeting for the Japanese Society of Veterinary Science. 6-8 Sep., 2022 (online)

Kobayashi D. Pathological analysis and detection of influenza virus receptors of an Ezo red fox and a tanuki infected with high pathogenicity avian influenza virus. 165th annual meeting for the Japanese Society of Veterinary Science. 6-8 Sep., 2022 (online)

Sakoda Y. Characterization of H5N1 high pathogenicity avian influenza viruses found in wild birds and mammals in the winter of 2021-2022, Hokkaido and future preparedness. 28th annual meeting for Japanese Society of Zoo and Wildlife Medicine. 23 Sep., 2022 (Tsukuba, Japan).

Kobayashi D. Isolation of high pathogenicity avian influenza viruses from an Ezo red fox and a tanuki in Hokkaido, Japan. 69th annual meeting for the Japanese Society for Virology. 15 Nov., 2022 (Nagasaki, Japan)

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

1 https://virusdb.czc.hokudai.ac.jp

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH Members?
No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?
Yes

<table>
<thead>
<tr>
<th>Quality management system adopted</th>
<th>Certificate scan (PDF, JPG, PNG format)</th>
</tr>
</thead>
</table>

19. Is your quality management system accredited?

WOAH Reference Laboratory Reports Activities 2022
Yes

Test for which your laboratory is accredited

<table>
<thead>
<tr>
<th>Hemagglutination test and hemagglutination inhibition test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreditation body</td>
</tr>
<tr>
<td>ISO/IEC 17025:2017</td>
</tr>
</tbody>
</table>

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

Yes

- Allocate the responsibility to each of the workers with training system and the SOP.
- Zoning of biohazard area with locked system not to allow unrelated persons entering in.
- Management of laboratory equipment including PPE with open-end system.
- Held team-meeting once a week to conduct the risk communication.

**TOR9: SCIENTIFIC MEETINGS**

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAH?

Yes

<table>
<thead>
<tr>
<th>NATIONAL/INTERNATIONAL</th>
<th>TITLE OF EVENT</th>
<th>CO-ORGANISER</th>
<th>DATE (MM/YY)</th>
<th>LOCATION</th>
<th>NO. PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>Workshop for the OIE avian disease network in east Asia</td>
<td>WOAH Tokyo office</td>
<td>2022-04-21</td>
<td>Online</td>
<td>50</td>
</tr>
</tbody>
</table>

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?

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>Molecular diagnosis of avian influenza</td>
<td>participant</td>
<td>11</td>
<td>Not available</td>
</tr>
</tbody>
</table>

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>Molecular diagnosis of avian influenza</td>
<td>participant</td>
<td>11</td>
<td>Not available</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?
Yes

<table>
<thead>
<tr>
<th>TITLE OF THE PROJECT OR CONTRACT</th>
<th>SCOPE</th>
<th>NAME(S) OF RELEVANT WOAH REFERENCE LABORATORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early detection of transboundary avian influenza viruses isolated from wild migratory birds</td>
<td>Early warning of transboundary avian influenza viruses in the Far East</td>
<td>Animal and Plant Quarantine Agency Ministry of Agriculture, Forest and Rural Affairs KOREA (REP. OF)</td>
</tr>
<tr>
<td>Early detection of transboundary avian influenza viruses isolated from wild migratory birds</td>
<td>Early warning of transboundary avian influenza viruses in the Far East</td>
<td>Federal State-Financed Institution, Russia</td>
</tr>
<tr>
<td>Genetic and antigenic characterization of recent H9 low pathogenicity avian influenza viruses</td>
<td>To characterize isolated viruses to develop the new diagnostic method for H9 low pathogenicity avian influenza</td>
<td>Istituto Zooprofilattico Sperimentale delle Venezie Research and Innovation Dept., Italy</td>
</tr>
</tbody>
</table>

**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?

Yes

<table>
<thead>
<tr>
<th>Purpose for inter-laboratory test comparisons</th>
<th>Role of your reference laboratory (organizer/participant)</th>
<th>No. participating laboratories</th>
<th>Region(s) of participating WOAH Member Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality control of the diagnosis skills of HI test for ISO/IEC 17025:2017</td>
<td>participant</td>
<td>2</td>
<td>Asia and Pacific</td>
</tr>
</tbody>
</table>

**TOR12: EXPERT CONSULTANTS**

28. Did your laboratory place expert consultants at the disposal of WOAH?

No

29. Additional comments regarding your report:

No