WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 9 juillet 2024 13:38

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory: Swine Influenza

Address of laboratory: Animal and Plant Health Agency - Weybridge, Addlestone, Surrey KT15 3NB UNITED KINGDOM

Tel.: 02082069680

E-mail address: ian.Brown@apha.gov.uk


Name (including Title) of Head of Laboratory (Responsible Official): Mr David Holdsworth, Chief Executive

Name (including Title and Position) of WOAH Reference Expert: Professor Ian Brown Director of WOAH/FAO International Reference Laboratory for Avian Influenza, Newcastle Disease and Swine Influenza

Which of the following defines your laboratory? Check all that apply: Governmental

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>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect diagnostic tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct diagnostic tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real-time RT-PCR M gene</td>
<td>Yes</td>
<td>796 Nationally 0 Internationally</td>
</tr>
<tr>
<td>Real-time RT-PCR pH1N1 2009</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Next Generation Sequencing</td>
<td>Yes</td>
<td>45 Nationally 0 Internationally</td>
</tr>
<tr>
<td>Egg inoculation/HA</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Henipatitis Subtyping qPCR</td>
<td>No</td>
<td>66 Nationally 0 Internationally</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?

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?
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>NEPAL</td>
<td>Offer of Assistance</td>
<td>Email</td>
</tr>
<tr>
<td>KOREA (REP. OF)</td>
<td>Offer of Assistance, Research</td>
<td>Email</td>
</tr>
<tr>
<td>JAPAN</td>
<td>Exchange of material</td>
<td>Email</td>
</tr>
</tbody>
</table>

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>ESFLU</td>
<td>2022-2026</td>
<td>ESFLU network of excellence for swine influenza COST Action CA21132 (WP1 Methods, WP2, Genomics, WP3, Surveillance, WP4, Dissemination)</td>
<td>European countries (27)</td>
<td>ALBANIA AUSTRIA BELGIUM BOSNIA AND HERZEGOVINA CROATIA DENMARK FINLAND FRANCE GERMANY GREECE IRELAND ITALY MONTENEGRO NORTH MACEDONIA (REP. OF) NORWAY POLAND PORTUGAL ROMANIA SERBIA SLOVENIA SPAIN SWEDEN SWITZERLAND THE NETHERLANDS</td>
</tr>
<tr>
<td>PIGIE</td>
<td>2021-2024</td>
<td>Define genetic and antigenic traits of swine influenza viruses circulating in European pig herds and identify potential control strategies</td>
<td>ANSES, FLI, University of Copenhagen, University of Barcelona, IZSLER (Parma) Includes linkages with CEVA who are part of the PIGIE consortium.</td>
<td>DENMARK FRANCE GERMANY ITALY SPAIN</td>
</tr>
<tr>
<td>Centres of Excellence for Influenza Research and response (CEIRR)</td>
<td>2021-2029</td>
<td>Development of pipelines for evaluation of the emergence of swine influenza viruses of pre-pandemic or pandemic risk.</td>
<td>NIAID funded programme. APHA supported via interactions with RVC and Penn-CEIRR. CEIRR Network (ceirr-network.org)<a href="https://www.niaid.nih.gov/research/centers-excellence-influenza-research-response">https://www.niaid.nih.gov/research/centers-excellence-influenza-research-response</a></td>
<td>UNITED STATES OF AMERICA</td>
</tr>
</tbody>
</table>
13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH?

No

**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:**

Collection and characterisation of a range of SwIV samples including meta data within the UK, through surveillance activities to provide an epidemiological picture and analysis of viral diversity across the UK.

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:**

An analysis of the epidemiological data, collected nationally, was disseminated through governmental outputs such as the Defra-led UK Pig Expert Group, and in peer-reviewed publications, detailing the evolution of SwIV and epidemiological picture of with relation to the UK situation. APHA contributed whole genome sequence data and virus isolates as well as generating hemagglutination inhibition (HI) data for the biannual OFFLU VCM virus characterisation report. In the reporting period, the H1B.1.1 clade, was identified as a genetically distinct viral lineage found in GB pig populations only.

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:

3


b) International conferences:
c) National conferences:

2
1. Dr Joe James: “Swine influenza surveillance in GB in relation to the human detection of H1N2v”, UKHSA/NHS laboratory network, 4.12.2023
2. Dr Pauline van Diemen: “Influenza D virus in GB”, UK Influenza Update Meeting, 18.12.2023

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

3
1. Dr Joe James: “Swine influenza surveillance in GB in relation to the human detection of H1N2v”, UKHSA/NHS laboratory network, 4.12.2023
2. Dr Helen Everett: European Society for Porcine Health Management. Swine influenza A virus diversity in GB. 31.5.2023
3. Dr Helen Everett: “The first human case of H1N2v in the UK”, UK Influenza Update Meeting, 19.12.2023
4. Dr Pauline van Diemen: “Influenza D virus in GB”, UK Influenza Update Meeting, 18.12.2023

**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>
<tbody>
<tr>
<td>ISO 17025</td>
<td>ISO17025 Certificate.pdf</td>
</tr>
<tr>
<td></td>
<td>ISO17025 Certificate.pdf</td>
</tr>
</tbody>
</table>

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>Haemagglutination Inhibition test</td>
<td>UKAS</td>
</tr>
<tr>
<td>Matrix (M)-gene PCR</td>
<td>UKAS</td>
</tr>
<tr>
<td>Virus isolation in SPF eggs</td>
<td>UKAS</td>
</tr>
<tr>
<td>Whole Genome Sequencing</td>
<td>UKAS</td>
</tr>
</tbody>
</table>

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

Yes

APHA maintains a complete and functioning laboratory biological risk management system, which ensures that the laboratory is in compliance with applicable local, national (UK Health and Safety Executive), regional, and international standards and requirements for biosafety and laboratory biosecurity

**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?
24. Do you network (collaborate or share information) with other WOAH Reference Laboratories designated for the same pathogen?
Yes

<table>
<thead>
<tr>
<th>NETWORK/DISEASE</th>
<th>ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)</th>
<th>NO. PARTICIPANTS</th>
<th>PARTICIPATING WOAH REF. LABS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFFLU</td>
<td>Organiser/Chair</td>
<td>3</td>
<td>Istituto Zooprofilattico Sperimentale delle Venezie, Italy</td>
</tr>
</tbody>
</table>

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen?
No

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>OFFLU VCM</td>
<td>APHA has carried out testing and contributed reagents, data and expertise to the biannual WHO VCM activities.</td>
<td>Istituto Zooprofilattico Sperimentale delle Venezie, 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?
No

**TOR12: EXPERT CONSULTANTS**

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

29. Additional comments regarding your report:
Yes
Dr Helen Everett was formally added to membership of the OFFLU SI group replacing Prof Ian Brown