WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 29 juin 2024 13:19

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Avian influenza
Address of laboratory:	CSIRO Australian Centre for Disease Preparedness (ACDP), 5 Portarlington Road, East Geelong, Victoria, AUSTRALIA 3219
Tel.:	+61-3 52 27 50 00
E-mail address:	won067@csiro.au
Website:	https://www.csiro.au/en/about/facilities-collections/acdp
Name (including Title) of Head of Laboratory (Responsible Official):	Dr Debbie Eagles (Director Australian Centre for Disease Preparedness)
Name (including Title and Position) of WOAH Reference Expert:	Dr Frank Wong (Senior Research Scientist)
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

Diagnostic Test	Indicated in WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
cELISA		711	405
Haemagglutination Inhibition (HI) Test		0	37
Direct diagnostic tests		Nationally	Internationally
Real-time PCR		1735	219
Virus Isolation		232	0
Sanger gene sequencing - molecular subtyping/pathotyping		36	0
Immunohistochemistry (IHC)		2	0
HI subtyping		18	0
Next generation sequencing		210	26

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?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOAH MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Avian influenza National quality control (NQC) samples	PCR	Produced & provided	10.5 ML	0 ML	2	AUSTRALIA,
Avian influenza National quality control (NQC) samples	ELISA	Produced & provided	10 ML	0 ML	2	AUSTRALIA,
Avian influenza virus antigens	Haemagglutination inhibition (HI) test	Produced & provided	0 ML	485 ML	1	PHILIPPINES,
Avian influenza chicken antiserum	Haemagglutination inhibition (HI) test	Produced & provided	0 ML	118 ML	1	PHILIPPINES,
Avian influenza ELISA MAB	ELISA	Produced & provided	0.5 ML	0 ML	1	AUSTRALIA,

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

NAME OF WOAH MEMBER COUNTRY SEEKING ASSISTANCE	DATE	WHICH DIAGNOSTIC TEST USED	NO. SAMPLES RECEIVED FOR PROVISION OF DIAGNOSTIC SUPPORT	NO. SAMPLES RECEIVED FOR PROVISION OF CONFIRMATORY DIAGNOSES
SOLOMON (ISLANDS)	2023-04-30	cELISA, Real-time PCR	22	0
SOLOMON (ISLANDS)	2023-05-31	cELISA, Real-time PCR	64	0
PHILIPPINES	2023-08-31	Real-time PCR, Virus isolation, HI test, Next-generation sequencing	0	30
SOLOMON (ISLANDS)	2023-10-31	cELISA, HI test, Real-time PCR	206	0

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAH Member?

Yes

NAME OF THE WOAH MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
AUSTRALIA	Provision of expert advice to federal and state government/OCVOs on avian influenza diagnostic testing and surveillance	Remotely by teleconferences, workshops, email communications, and in loco meetings
	Provision of expert advice and support	

INDONESIA	to build diagnostic capacities at the Directorate-General Livestock and Animal Health Services of Indonesia's Disease Investigation Centre (DIC) Wates in Yogjakarta, to serve as a National Reference Laboratory for Avian Influenza, and the ASEAN Regional Reference Centre for Bioinformatics	In loco training and workshops; remotely by teleconferences and email communications
PAPUA NEW GUINEA	Provision of support to build diagnostic capacities at the PNG National Agriculture & Quarantine Inspection Authority (NAQIA) laboratory, to quality assurance and ISO17025 laboratory standards	In loco training and workshops; remotely by teleconferences and email communications
PHILIPPINES	Provision of expert advice to Philippines Bureau of Animal Industry, Department of Agriculture on avian influenza diagnostic testing and investigations of HPAI outbreaks	Remotely by teleconferences, email communications, and diagnostic reports
VIETNAM	Provision of support via laboratory strengthening with the Regional Animal Health Office No. 6 (RAHO-6) in Ho Chi Minh City, to build animal health diagnostic and reference centre capacities to quality assurance and ISO17025 laboratory standards	In loco training and workshops; remotely by teleconferences and email communications

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	PARTNERS (INSTITUTIONS)	WOAH MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
OFFLU contributions on Zoonotic Influenza to the WHO Influenza Vaccine Composition Meetings (VCM)	1 year (ongoing)	ACDP produces and shares epidemiological, antigenic (Haemagglutination Inhibition) and genetic virus surveillance data from avian influenza A(H5), A(H7) and A(H9) viruses with OFFLU and to the WHO-GISRS pre-pandemic Vaccine Composition Meeting (VCM) consultations	WOAH Reference Laboratories and FAO Reference Centres for Avian influenza that contribute to the OFFLU network and contributing member countries	AUSTRALIA ITALY PHILIPPINES TIMOR-LESTE UNITED KINGDOM UNITED STATES OF AMERICA
OFFLU Avian Influenza Matching (AIM) project	1 year (ongoing)	ACDP receives and produces H5 HPAI virus test antigens for HI testing to generate antigenic data for the OFFLU AIM assessments of poultry vaccines	WOAH Reference Laboratories for Avian Influenza in Australia (ACDP), Italy (IZSVe), United Kingdom (APHA) and USA (USDA)	AUSTRALIA ITALY PHILIPPINES TIMOR-LESTE UNITED KINGDOM UNITED STATES OF AMERICA
Wildlife Interface Viromic Regional EID Surveillance project in Southeast Asia – supported by Australian Government Department of Foreign Affairs and Trade (DFAT) Partnerships for a Healthy Region (PHR) Program	2022-2027	Building and supporting field and laboratory capacities in Southeast Asia for viromic and metagenomic EID surveillance at the wildlife interface	Australian Government DFAT Partnerships for a Healthy Region Program, National Animal Health and Production Research Institute (NAHPRI) Cambodia, the National Research and Innovation Agency (BRIN) Indonesia, Lao Oxford-Mahosot Hospital-Wellcome Trust Research Unit (LOMWRU) Laos Bureau of Animal Industry Department of Agriculture Philippines, and FAO-ECTAD Indonesia	AUSTRALIA CAMBODIA INDONESIA LAOS PHILIPPINES

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:
Avian influenza surveillance and epidemiological data, including whole virus genome sequences, phylogenetic and antigenic characterization data. Data from animal pathogenicity and immunological research in hosts. Data and guidance information on validation and quality assurance testing of diagnostic tests for animal influenza See also Q12

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:
Avian influenza sample surveillance and epidemiological data, including whole virus genome sequences, phylogenetic and antigenic characterization data to OFFLU and sample submitting member countries. Data from animal disease and immunological research in hosts and pathogen to OFFLU and sample submitting member countries. Data and guidance information on validation and quality assurance testing of diagnostic tests for animal influenza to sample submitting member countries. See also Q12 for international programs receiving epidemiological data and Q16 for titles of publications and conference proceedings.

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:

6

1. Edwards KM, Siegers JY, Wei X, Aziz A, Deng Y, Yann S, et. al. 2023. Detection of Clade 2.3.4.4b Avian Influenza A(H5N8) Virus in Cambodia 2021. Emerg. Infect. Dis. 2023;29(1):170-174. https://doi.org/10.3201/eid2901.220934

2. Karawita A.C., Cheng Y.Y., Chew K.Y., Challagulla A., Kraus R., et. al. 2023. The swan genome and transcriptome, it is not all black and white. Genome Biol. 24: 13. https://doi.org/10.1186/s13059-022-02838-0

3. Layton R., Layton D., Stanger K., Beggs D., Fisher A., Mansell P. 2023. The impact of stress and anaesthesia on animal models of infectious disease. Frontiers Vet. Sci. 10:3389 https://doi.org/10.3389/fvets.2023.1086003

4. Luczo J.M., Soumana I.H., Reagin K.L., Dihle P., Ghedin E., Klonowski K.D., Harvill E.T., Tompkins S.M. 2023. Bordetella bronchiseptica-Mediated Interference Prevents Influenza A Virus Replication in the Murine Nasal Cavity. Microbiol. Spectrum. 11: e04735-22. https://doi.org/10.1128/spectrum.04735-22

5. Reid T., Singanallur Balasubramani N., C. Waugh C., Bowden T., Newberry K., Colling A. Validation of diagnostic tests for infectious diseases: challenges and opportunities. In: Proceedings of the International Symposium on Sustainable Animal Production and Health: Current Status and the Way Forward. Vienna, 28 June - 2 July 2021. FAO, Rome. https://doi.org/10.4060/cc2530en

6. Tribolet L., Brice A.M., Fulford T.S., Layton D.S., Godfrey D.I., Bean A.G.D., Stewart C.R. 2023. Identification of a novel role for the immunomodulator ILRUN in the development of several T cell subsets in mice. Immnunol. 228(3). doi.org/10.1016/j.imbio.2023.152380

b) International conferences:

3

1. Grimsey J, Cooke J., Gagliardi M., Grech E., Wong F., Butler J. Giles M. Optimisation of antiserum production to highly pathogenic avian influenza viruses at ACDP. 15th Australian Influenza Symposium. 2-3 November 2023, WHO Collaborating Centre for Reference and Research on Influenza, VIDRL. Melbourne.

2. Wong F. Surveillance of LPAI for risk mitigation and incursion and prevention. WOAH Regional Representation for Asia and the Pacific, 29-31 August 2023. Qingdao, People's Republic of China.

3. Wong F. Strategic Challenges 1 Panellist: Avian influenza intelligence - Surveillance and monitoring for early detection. Animal Health Forum on Avian Influenza, Policy to Action. 90th Annual General Session of the World Assembly of Delegates of the World Organisation for Animal Health (WOAH), 21-25 May 2023, Paris.

c) National conferences:

2

1. Wong F. Avian Influenza Update. Ideas Exchange Program, 17-18 October 2023. Poultry Hub Australia, University of New England, Armidale, Australia.

2. Wong F. Global HPAI Update. Recent Advances in Emergency Animal Diseases Annual Symposium, 11-12 October 2023. CSIRO Australian Centre for Disease Preparedness, Geelong, Australia.

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

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1. Wong F. Contributions to the OFFLU Steering & Executive Committee Meetings. Current Chairperson of the OFFLU Executive Committee and OFFLU Avian Influenza Technical Group. https://www.offlu.org/

2. Wong F. OFFLU contributions to the WHO Vaccine Composition Meeting consultations on zoonotic influenza, Feb and Sep 2023. https://www.offlu.org/index.php/publications/

3. Wong F. Contributions to FAO Regional Consultation on Environmental Surveillance for Zoonotic Influenza in Asia, 14-16 November 2023. FAO-RAP, Bangkok.

4. Wong F. Contributions to the FAO Global Consultation on HPAI. Hybrid Meeting, 2-4 May 2023. FAO Rome. https://www.fao.org/documents/card/en?details=cc7302en

5. Wong F. World Health Organization TIPRA Expert Consultation on H5N1 Clade 2.3.4.4b. 11 May 2023, WHO, Geneva.

6. Wong F. Contributions to the 2nd Workshop of the WOAH Avian Diseases Network in East Asia, 8 June 2023 (Virtual). WOAH-RRAP, Tokyo.

7. Colling A., Day A. ACDP contribution to update of WOAH Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023. Chapter 1.1.5. Quality Management in Veterinary Testing Laboratories. https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-manual-online-access/

8. Newberry K., Colling A., ACDP contribution to update of WOAH Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023. Chapter 2.2.4. Measurement Uncertainty. https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-manual-online-access/

9. Newberry K., Colling A. ACDP contribution to WOAH Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023. Chapter 1.1.9. Tests for sterility and freedom from contamination of biological materials intended for veterinary use. https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-manual-online-access/

10. Reising M., Colling, A. ACDP contribution to update of WOAH Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023. Chapter 2.2.8. Comparability of assays after changes in a validated test method. https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-manual-online-access/

11. Waugh C., Cabuang L. ACDP contribution to update of WOAH Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023. Chapter 2.2.6. Use of reference samples and panels. https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-manual-online-access/

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 : 15

b) Seminars : 4

c) Hands-on training courses: 11

d) Internships (>1 month) 0

Type of technical training	Country of origin of the expert(s)	No. participants from the

provided (a, b, c or d)	provided with training	corresponding country
A	INDONESIA	12
C	INDONESIA	12
A	INDONESIA	10
C	CAMBODIA	2
C	INDONESIA	2
C	MALAYSIA	2
C	SINGAPORE	2
C	PAPUA NEW GUINEA	2
C	VIETNAM	2
C	THAILAND	2
C	TIMOR-LESTE	2
C	LAOS	2
C	INDONESIA	29
A	INDONESIA	10
C	INDONESIA	10
A	INDONESIA	11
C	INDONESIA	5
B	INDONESIA	10
B	ARGENTINA	20
A	INDONESIA	10
C	INDONESIA	10
A	INDONESIA	3
A	INDONESIA	6
A	INDONESIA	10
A	INDONESIA	10
A	VIETNAM	50
A	PAPUA NEW GUINEA	12
C	PAPUA NEW GUINEA	12
B	INDONESIA	8
A	INDONESIA	9
C	INDONESIA	9
A	INDONESIA	13
C	INDONESIA	13
B	INDONESIA	15
C	INDONESIA	15

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	

Integrated Management System (IMS) covering: ISO 9001 ISO 14001 ISO 17025 ISO 17043	BSI ISO 9001 NOV 2022.pdf	BSI ISO 9001 NOV 2022.pdf
Integrated Management System (IMS) covering: ISO 9001 ISO 14001 ISO 17025 ISO 17043	BSI ISO 14001 NOV 2022.pdf	BSI ISO 14001 NOV 2022.pdf
Integrated Management System (IMS) covering: ISO 9001 ISO 14001 ISO 17025 ISO 17043	NATA ISO 17025 SEP 2022.pdf	NATA ISO 17025 SEP 2022.pdf
Integrated Management System (IMS) covering: ISO 9001 ISO 14001 ISO 17025 ISO 17043	NATA ISO 17043 NOV 2022.pdf	NATA ISO 17043 NOV 2022.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Testing for sterility and freedom from contamination of biological materials intended for veterinary use – Innocuity (Bacterial culture -Biphasic medium, mycoplasma broth; Dark field microscopy; Embryonated egg culture; Enzyme linked immunosorbent assay (ELISA); Fluorescent antibody test; Haemagglutination; PCR - Quantitative (qPCR); Polymerase chain reaction (PCR); Virus isolation)	NATA - ISO 17025 (ILAC affiliated)
Testing for sterility and freedom from contamination of biological materials intended for veterinary use – Innocuity (Embryonated egg culture; Enzyme linked immunosorbent assay (ELISA); Fluorescent antibody test; Bacterial culture – Biphasic medium, Mycoplasma broth; Dark field microscopy; PCR 16S Universal; Virus isolation; Haemagglutination; Indirect fluorescent antibody; Polymerase chain reaction (PCR); PCR - Quantitative (qPCR))	NATA - ISO 17025 (ILAC affiliated)
Detection and identification of viruses (PCR - Quantitative (qPCR))	NATA - ISO 17025 (ILAC affiliated
Necropsy services (Microscopic examination; Anatomical pathology)	NATA - ISO 17025 (ILAC affiliated
Molecular analysis - Bioinformatic analysis and interpretation (To be determined; Analysis of DNA alignment; DNA alignment to reference sequence)	NATA - ISO 17025 (ILAC affiliated
Molecular analysis - Sequencing (Sanger sequencing)	NATA - ISO 17025 (ILAC affiliated
Microbiology - Serology of infection – Microbial antibody and/or antigen detection and/or quantitation (Haemagglutination Inhibition)	NATA - ISO 17025 (ILAC affiliated
Microbiology - Serology of infection – Microbial antibody and/or antigen detection and/or quantitation (Agar gel immunodiffusion (AGID))	NATA - ISO 17025 (ILAC affiliated
Microbiology - Serology of infection – Microbial antibody and/or antigen detection and/or quantitation (Enzyme linked immunosorbent assay (ELISA))	NATA - ISO 17025 (ILAC affiliated
Detection and identification of viruses (Embryonated egg culture; Haemagglutination Inhibition)	NATA - ISO 17025 (ILAC affiliated
Accreditation No: 13546 (scope last change 2021)	NATA - ISO 17025 (ILAC affiliated

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

Yes

The laboratory has a dedicated Biorisk Management Team who provide specialist advice, monitor and improve Biosafety, Biosecurity and Biocontainment activities and perform maintenance on Biocontainment systems. The team uses a risk analysis approach to management of biological risks for biosafety and biosecurity to inform and determine the policy and procedures that in turn give confidence that the laboratory procedures for each of the biological materials handled by the laboratory pose negligible danger to Australia's animal and human populations. 261 Policies and procedures are contained in the annually reviewed ACDP Biorisk Manual consisting of various sections as follows: Section 1 Administration Section 2 PC2 Procedures and Policies Section 3 PC3 Procedures and Policies Section 4 PC4 Procedures and Policies Section 5 Large Animal Facility (LAF) Procedures and Policies Section 6 Personnel and Procedural Controls Section 7 Transport and Storage of Biological Material Section 8 Movement of Material, Equipment and Waste Section 9 Engineering Procedures and Polices Section 10 Microbiological Incident Response Procedures and Policies Section 11 Laboratory Services Group Section 12 Containment Services Group The successful ACDP biological risk management system has clear and unequivocal commitment by laboratory management, who ensure that roles, responsibilities, resources and authorities related to biological risk management are defined, documented, and communicated to those who manage, perform, and verify work associated with biological agents and toxins in the laboratory. The Biorisk Management Team are audited over 3 days every 6 months by an external security assessment team to provide an independent review of elements affecting ACDP's microbiological and physical security operations and to advise CSIRO senior executive management of any areas of concern or risk. The laboratory is aspiring to become accredited to ISO 35001:2019 Biorisk management for laboratories and other related organisations.

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?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
90th Annual General Session of the World Assembly of Delegates of WOAH; Animal Health Forum on Avian Influenza - Policy to Action	2023-05-22	Paris, France	Invited speaker and Session panellist	Strategic Challenges 1: Avian Influenza Intelligence - Surveillance and Monitoring for Early Detection
WOAH Regional Representation for Asia & the Pacific (RRAP) Workshop on Avian Diseases Network in East Asia	2023-06-08	Tokyo, Japan (virtual)	Invited speaker	OFFLU Avian Influenza Update
WOAH Regional Workshop for Avian Disease Prevention and Control in Asia and the Pacific	2023-08-29	Qingdao China	Invited speaker	Surveillance of LPAI for risk mitigation and incursion and prevention
FAO Regional Consultation on Environmental Surveillance for Zoonotic Influenza in Asia	2023-11-14	Bangkok, Thailand	Invited participant	Sessional Discussions

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

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAH REF. LABS
OFFLU (WOAH/FAO Network of Expertise on Animal Influenza) - Avian influenza technical working group	Chairperson, organiser and participant	13	Contributing WOAH Reference Laboratories for Avian Influenza including Australia, Brazil, Canada, China, Egypt, Germany, India, Italy, Japan Rep. of Korea, Russia, United Kingdom, and United States of America,
OFFLU (WOAH/FAO Network of Expertise on Animal Influenza) - Executive committee	Chairperson, organiser and participant	6	OFFLU Executive Committee members from FAOm WOAH and WOAH Reference Laboratories for avian influenza, including Australia, China, Germany, and United States of America https://www.offlu.org/index.php/offlu-organisation/
FAO regional avian influenza network for Asia-Pacific	Participant and working group chairperson	5	WOAH member countries in Asia-Pacific, WOAH Reference Laboratories (Australia, China, Rep. of Korea, Japan, and India) and FAO Reference Centres for Avian and Animal Influenza in the Asia-Pacific
WOAH Regional Representation for Asia and the Pacific Expert Group for Avian Diseases	Participant and sessional chairperson	5	WOAH Reference Laboratories in the Asia-Pacific, including Australia, China, Rep. of Korea, Japan, and India, and participating member countries in the Asia-Pacific

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

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/ PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOAH REF. LABS/ ORGANISING WOAH REF. LAB.
OFFLU Molecular PT for detection of avian influenza A to inform on the capability of the OFFLU contributing laboratories to detect and characterize isolates of AIV from different lineages and regions	Organiser and participant	10	WOAH Reference Laboratories for Avian Influenza in Australia (Organiser), Brazil, Canada, Germany, India, Italy, Japan, Rep. of Korea, United Kingdom, and United States of America

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

TITLE OF THE PROJECT OR CONTRACT	SCOPE	NAME(S) OF RELEVANT WOAH REFERENCE LABORATORIES
OFFLU contributions on Zoonotic Influenza to the WHO Influenza Vaccine Composition Meetings (VCM)	ACDP produces and shares epidemiological, antigenic (HI tests) and genetic virus characterisation data from avian influenza A(H5), A(H7) and A(H9) viruses using harmonised panel of reagents and protocols developed in collaboration with OFFLU (WOAH) and WHO-GISRS H5 Reference Laboratories	WOAH Reference Laboratories for Avian Influenza at ACDP (Australia), APHA (United Kingdom), FLI (Germany), IZSVe (Italy/EURL), and USDA-APHIS (United States of America)
OFFLU Avian Influenza Matching (AIM) project	ACDP produces and shares epidemiological, antigenic (HI tests) and genetic virus characterisation data from avian influenza A(H5) viruses using harmonised panel of reagents and protocols developed in collaboration with participating WOAH Reference Laboratories for the OFFLU Avian Influenza Matching (AIM) Project	WOAH Reference Laboratories for Avian Influenza at ACDP (Australia), APHA (United Kingdom), IZSVe (Italy/EURL), USDA-APHIS (United States of America)

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

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the Test	WOAH Member Countries
Asia-Pacific Regional PT for avian diseases, detection of AIV by PCR	Organiser	24	PCR	BANGLADESH, BHUTAN, BRUNEI, CAMBODIA, CHINA (PEOPLE'S REP. OF), CHINESE TAIPEI, GHANA, INDIA, INDONESIA, KOREA (REP. OF), MALAYSIA, NEW CALEDONIA, PHILIPPINES, SINGAPORE, VIETNAM,
Provision of PT for state jurisdictional laboratories in Australia and NZ (LEADDR) for detection of AIV by PCR	Organiser and participant	9	PCR	AUSTRALIA, NEW ZEALAND,
Provision of PT for state jurisdictional laboratories in Australia (LEADDR) for detection of AIV antibodies by ELISA	Organiser and participant	8	ELISA	AUSTRALIA, NEW ZEALAND,

TOR12: EXPERT CONSULTANTS

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

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
WOAH Regional Workshop for Avian Disease Prevention and Control in Asia and the Pacific	Qingdao, People's Republic of China	Disease Diagnostics, Disease Surveillance Updates, and Laboratory Expertise on Avian Diseases
Member of the WOAH Regional Expert Network for Avian Diseases in Asia and the Pacific	Remote through the WOAH Regional Representation for Asia and the Pacific, Tokyo	Disease Diagnostics, Disease Surveillance Updates, and Laboratory Expertise on Avian Diseases
90th Annual General Session of the World Assembly of Delegates of WOAH; Animal Health Forum on Avian Influenza	Paris, France	Session Panellist for Animal Health Forum on Avian Influenza – Policy to Action
Chair and Member of OFFLU (WOAH/FAO Network of Expertise on Animal Influenza) Executive Committee	Remote and in-person through the OFFLU Secretariat at WOAH, Paris	OFFLU Strategy and Technical Activities on Avian Influenza
Chair and contributing expert to the OFFLU Avian Influenza Technical Activity Group	Remote and in-person through the OFFLU Secretariat at WOAH, Paris	Disease Diagnostics, Disease Surveillance, Guidance Notes, and Laboratory Expertise on Avian Influenza
Contribution of expertise and surveillance data to the WHO Vaccine Composition Meeting (VCM) through the OFFLU VCM Technical Activity, February and September 2023	Remote through OFFLU Secretariat at WOAH, Paris	Zoonotic influenza surveillance and response

Contribution of expertise and surveillance data to the OFFLU AIM Technical Activity	Remote and in-person with collaborating WOAH Reference Laboratories on Avian Influenza	Disease Surveillance and Virus Antigenic Characterisation of H5 HPAI
WOAH Reference Laboratory for Avian Influenza and OFFLU representation to the WHO-GISRS consultations and working group activities	Remote through WHO-GISRS, Geneva	WOAH/OFFLU contributions to the WHO Tool for Pandemic Risk Assessment (TIPRA) on zoonotic influenza viruses
Technical advice to National Authority in Australia	Remote and in-person through Australian Government Department of Agriculture, Forestry and Fisheries (DAFF), Canberra, Australia	Review of WOAH Terrestrial Code and Terrestrial Manual chapter on Avian Influenza (via DAFF Australia)

29. Additional comments regarding your report:

No