World Organisation for Animal Health

Frank Wong - - AUSTRALIA

WOAH Reference Laboratory Reports Activities 2024

This report has been submitted: 2 février 2025 15:28

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, Australian Centre for Disease Preparedness
***Which of the following defines your laboratory? Check all that apply:**	Governmental Research agency

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	Yes	671	641
HI Test	Yes	2	9

Direct diagnostic tests		Nationally	Internationally
Real-time PCR	Yes	4995	233
Virus isolation	Yes	240	6
PCR / Molecular typing	Yes	114	0
Immunohistochemistry	Yes	25	0
HI Typing	Yes	16	3
Next generation sequencing	Yes	271	5

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
Live Avian Influenza Virus	PCR and diagnostic assay development	Produced & provided	0	5 mL	2	FRANCE, ITALY,
Inactivated Avian Influenza Virus	PCR and diagnostic assay development	Produced & provided	72 mL	25 mL	9	AUSTRALIA, ITALY, LAOS, NEPAL, NEW CALEDONIA, PHILIPPINES, UNITED KINGDOM,
Avian Influenza National Quality Control	PCR	Produced & provided	85 mL	0	1	AUSTRALIA,
Avian Influenza National Quality Control	ELISA	Produced & provided	25 mL	0	1	AUSTRALIA,
Avian Influenza Antigen	ELISA	Produced & provided	116 mL	0	1	AUSTRALIA,
Avian Influenza Primer/Probe Kits	PCR	Provided	0	1000 tests	1	NEPAL,

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)	2024-02-29	Real-time PCR, cELISA	234	0
SOLOMON (ISLANDS)	2024-06-28	Real-time PCR, cELISA	349	0
PAPUA NEW GUINEA	2024-07-31	Real-time PCR, cELISA, HI Test, High Throughput Sequencing, Virus isolation	227	0
KIRIBATI	2024-07-31	Real-time PCR, cELISA	65	0
PHILIPPINES	2024-11-29	High Throughput Sequencing, Virus Isolation, HI typing	0	8

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 departments/ OCVOs on avian influenza diagnostic testing, outbreak response, and surveillance	Remotely by teleconferences, workshops, email communications, and in loco meetings.
	Provision of expert advice to the national government National Animal Health and Production Research Institute (NAHPRI) at General	Remotely by teleconferences, workshops, email

CAMBODIA	Directorate of Animal Health and Production (GDAHP), Phnom Penh on HPAI and EID diagnostics and surveillance.	communications, and in loco meetings.
INDIA	Co-facilitated the Avian Influenza Outbreak and Response Simulation Exercise to Government of India Department of Animal Husbandry and Dairying (DAHD) in collaboration with World Bank held at Bhopal, Madhya Pradesh, India.	In loco workshop coordinated with the World Bank https://pib.gov.in/PressReleasePage.aspx?PRID=2027144
INDONESIA	Provision of expert advice and support to build diagnostic capacities at the Directorate-General Livestock and Animal Health Services of Indonesia's Disease Investigation Centres (DICs), including DIC Wates in Yogjakarta to serve as the National Reference Laboratory for Avian Influenza, and the ASEAN Regional Reference Centre for Bioinformatics.	In loco training and workshops; remotely by teleconferences and other virtual communications.
NEW CALEDONIA	Provision of expert advice to the national government Laboratoire de Nouvelle-Calédonie at DAVAR and the OCVO on avian influenza diagnostic and quarantine testing, and avian influenza surveillance.	Remotely by teleconferences, workshops, email communications, and in loco meetings.
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 other virtual communications.
	Provision of expert advice to Philippines Bureau of Animal Industry, Department of	In loco training and workshops; remotely by

PHILIPPINES	Agriculture on avian influenza diagnostic testing and investigations of HPAI outbreaks.	teleconferences and other virtual communications.
VIETNAM	Provision of support via laboratory strengthening with the Regional Animal Health Office No. 6 (RAHO-6) in Ho Chi Minh City and the National Centre for Veterinary Diagnosis Hanoi, to build animal health diagnostic and reference centre capacities to quality assurance and ISO17025 laboratory standards; and to develop molecular and diagnostic NGS sequencing capabilities for avian influenza and other transboundary viral diseases.	In loco training and workshops; remotely by teleconferences and other virtual 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.	CAMBODIA ITALY PHILIPPINES 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 global H5 HPAI antigenic	WOAH Reference Laboratories for Avian Influenza in Australia (ACDP), Italy (IZSVe), United Kingdom (APHA)	CAMBODIA ITALY UNITED KINGDOM UNITED STATES OF AMERICA

		surveillance.	and USA (USDA).	
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.	CAMBODIA INDONESIA LAOS PHILIPPINES

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH?

Yes

Research need : 1

Please type the Research need: Current approaches to better understanding the prevalence and distribution of HPAI and other emerging pathogenic and zoonotic AIVs require the uptake of rapid high-throughput/next-generation sequencing (HTS/NGS) of whole virus genomes. These technological approaches are crucial to the timely characterisation and surveillance of emerging transboundary AIV strains to better inform regional and international avian influenza preparedness and control. However, there remain large gaps in laboratory capacities, capabilities, and quality assurance and regulatory frameworks for the analysis and interpretation of HTS/NGS and bioinformatics for AIV in the majority of low-income member countries in the Asia-Pacific and other global regions. Improved knowledge and capacity guidance with relevant regulatory support will contribute significantly to timely molecular diagnostics, transboundary surveillance, regional preparedness and outbreak control, and vaccine design, including better informing our understanding of the genetic diversity and evolution of epizootic and panzootic AIVs.

Relevance for WOAH Disease Control, Capacity Building, Standard Setting, Facilitation of international collaboration,

Relevance for the Code or Manual Manual,

Field Epidemiology and Surveillance, Diagnostics,

Animal Category Terrestrial,

Disease:

Avian influenza

Kind of disease (Zoonosis, Transboundary diseases) Zoonosis, Transboundary diseases,

If any, please specify relevance for Codes or Manual, chapter and title

(e.g. Terrestrial Manual Chapter 2.3.5 - Minimum requirements for aseptic production in vaccine manufacture)

Answer:

Notes:

Answer:

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 serologic 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 Q10 and Q12 for further details.

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 Q12 for international programs receiving epidemiological data and Q16 for titles of publications, web-based guidance documents and reports, 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:

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1. Ahmed W, Liu Y, Smith W, Ingall W, Belby M, Bivins A , Bertsch P, Williams DT, Richards K, Simpson S. 2024. Leveraging wastewater surveillance to detect viral diseases in livestock settings. Sci Total Environ. 931. https://doi.org/10.1016/j.scitotenv.2024.172593.

2. Davis SK, Jia F, Wright QG, Islam MT, Bean A , Layton D, Williams DT, Lynch SE. 2024. Defining correlates of protection for mammalian livestock vaccines against high-priority viral diseases. Frontiers Immunol. 15: 2024. https://doi.org/10.3389/fimmu.2024.1397780

3. Edwards SJ, Luczo JM. 2024. Editorial: Zoonotic negative-sense RNA viruses. Front. Vet. Sci. 11:1384858.

doi: 10.3389/fvets.2024.1384858
4. Luczo JM, Spackman E. 2024. Epitopes in the HA and NA of H5 and H7 avian influenza viruses that are important for antigenic drift, FEMS Microbiol Rev. 48: fuae014.
https://doi.org/10.1093/femsre/fuae014
5. Sett S, Kress WJ, Halewood M, Nicholson D, Nuñez-Vega G, Faggionato D, Rouard M, Jaspars M, da Silva M, Prat C, Raposo DS, Klünker I, Freitag J, Tiambo CK, dos Santos Ribeiro C, Wong L, Benbouza H, Overmann J, DSI Scientific Network signatory authors, Scholz AH. 2024. Harmonize rules for digital sequence information benefit-sharing across UN frameworks. Nature Commun. 15 : 8745.
https://doi.org/10.1038/s41467-024-52994-z
6. Wille M, Broz I, Cherrington T, Crawley A, Farrugia B, Ford M, Frost M, Grimsey J, Kirkland PD, Latimore S, Lynch SE, Martin S, Matereke C, Mee PT, Neave MJ, O'Dea M, Read AJ, O'Riley K, Stevens V, Thayaparan S, Zufan S, Ban de Gouvea Pedroso S, Grillo V, Breed AC, Barr IG, Holmes EC, Klaassen M, Wong FYK. 2024. Contrasting dynamics of two incursions of low-pathogenicity avian influenza virus into Australia. Virus Evol. 10(1): veae076.
https://doi.org/10.1093/ve/veae076
7. Wille M, Grillo V, de Gouvea Pedroso SB, Brohier ND, Broz I, Burgoyne C, Crawley A, Davies K, Ford M, Grimsey J, Kung NYH, Luczo JM, Matereke C, Mee PT, Mileto P, Neave MJ, Poon M, Stevens V, Weerasinghe G, Zufan S, Barr IG, Klaassen M, Breed AC, Wong FYK. 2024. Incursion of novel Eurasian low pathogenicity avian influenza H5 Virus, Australia, 2023. Emerg Infect Dis. 30(12): 2620-2624.
https://doi.org/10.3201/eid3012.240919

b) International conferences:

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1. Wong FYK. Avian Influenza - Global and regional HPAI surveillance to inform EAD preparedness and response. Avian Influenza Outbreak and Response Simulation Exercise Workshop. 19-20 June 2024, Bhopal, Madhya Pradesh, India. Oral presentation and workshop facilitation.
2. Sett S. Potential obligations under international legal frameworks for the sharing of biological samples. Regional Seminar for WOAH National Focal Points for Veterinary Laboratories. Tokyo, Japan. 16-18 July 2024. Online presentation.
3. Drew T. Biorisk management – biosafety, biosecurity, bioethics. Regional Seminar for WOAH National Focal Points for Veterinary Laboratories. Tokyo, Japan, 16-18 July 2024. Oral presentation.
4. Drew T. Benefits of sharing materials and information to international animal health. Regional Seminar for WOAH National Focal Points for Veterinary Laboratories. Tokyo, Japan, 16-18 July 2024. Oral presentation.
5. Colling A. Animal health diagnostics: How to select which kits to use? Regional Seminar for WOAH National Focal Points for Veterinary Laboratories. 16-18 July 2024, Tokyo, Japan. Online presentation.
6. Neave M. Tracking avian influenza in Australia. WOAH Regional Workshop for Avian Disease Prevention and Control in Asia and the Pacific. 27-29 August 2024, Seoul, Republic of Korea. Oral presentation.
7. Wong FYK. Global and regional H5 HPAI – emphasising the key messages and lessons learnt. Influenza Virus Monitoring Network Annual Meeting. 4-5 November 2024, Directorate General Livestock and Animal Health Services, Ministry of Agriculture, Republic of Indonesia. Online presentation.
8. Le Lay C, Stevens V, Mileto P, Davies K, Broz I, Neave M, Wong F. Analysis of H5NX Avian influenza diffusion, evolution and recombination in South-East Asia. 12th Australasian Virology Society Meeting, 2-5 December 2024. Creswick, Australia. Poster presentation.
9. Belfrage M, Wong F, Luczo J. Antigenic characterisation of H7 highly pathogenic avian influenza virus under immunological pressure. 12th Australasian Virology Society Meeting, 2-5 December 2024. Creswick, Australia. Poster presentation.
10. Wong FYK. Regional AIV overview agriculture – setting the scene. Pasteur Network Avian Influenza Symposium/Workshop. 10-12 December 2024, Phnom Penh, Cambodia. Oral presentation.

c) National conferences:

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1. Le Lay C. Introduction to RNA Viral Metagenomics. 6 June 2024, Indonesian Research Center for Applied Microbiology, National Research and Innovation Agency (BRIN). Technical Sharing Session Webminar. Oral and online presentation.
2. Wong F. Global and regional epizootic avian influenza surveillance to inform disease preparedness and response. Avian influenza 2.3.4.4b - What's 2b webinar. 7 June 2024, Centre for Infectious Diseases and Microbiology - Public Health. Online presentation.
https://beritanasional.com/detail/73133/brin-ungkap-pentingnya-riset-metagenomik-virus-untuk-hadapi-penyakit-infeksi-baru
3. Wong F. Global and regional 2.3.4.4b HPAI H5Nx threat - setting the scene. Government and Industry Roundtable on HPAI Preparedness, clade 2.3.4.4b H5N1. 13 June 2024, Animal Health Australia, Canberra. Oral presentation.
4. Wong F. Global and regional HPAI Situation Update. University of Melbourne veterinarians lunch time oration. 14 August 2024, Graduate House, The University of Melbourne. Oral presentation.
5. Wong F. Global and regional HPAI H5N1 overview. Recent Advances in Emergency Animal Diseases Annual Symposium. 30-31 October 2024, CSIRO Australia Centre for Disease Preparedness, Geelong.

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

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1. Le Lay C. It's an RNA virus world. Pint of Science Australia. Delivering engagement that builds the Australian public's appreciation for science. 09 April 2024, Oral presentation.
2. Eagles D, Wong F. Bird flu in Australia. 15 Jul 2024, Australian Science Media Centre Briefing.
https://www.scimex.org/newsfeed/briefing-alert-bird-flu-in-australia-your-questions-answered
3. Wong F. Dissemination of information on HPAI/avian influenza preparedness and H7 HPAI outbreaks in Australia through multiple media interviews and public information sessions throughout 2024.
4. 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/
5. Wong F. ACDP participation for OFFLU contributions to the WHO Vaccine Composition Meeting consultations on zoonotic influenza, February/September 2024.
https://www.offlu.org/index.php/publications/
6. Wong F. World Health Organization TIPRA Expert Consultation on H5N1 clade 2.3.2.1c and 2.3.4.4b. May/June/August 2024, WHO, Geneva. Online consultations.
7. Watson J, Vosloo W, Wong F. ACDP contributions to Animal Health Australia (AHC) Vaccine Expert Advisory Group (VEAG) consultations for HPAI preparedness.
https://animalhealthaustralia.com.au/

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 : 131

b) Seminars : 0

c) Hands-on training courses: 154

d) Internships (>1 month) 0

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
A	INDONESIA	12

C	INDONESIA	12
A	INDONESIA	12
A	INDONESIA	23
C	INDONESIA	23
A	INDONESIA	38
C	INDONESIA	38
C	INDONESIA	3
C	FIJI	2
C	VIETNAM	2
C	PAPUA NEW GUINEA	2
C	PHILIPPINES	2
C	MALAYSIA	2
C	SAMOA	2
C	VANUATU	2
C	CAMBODIA	2
C	VIETNAM	2
C	PHILIPPINES	2
C	INDONESIA	2
C	INDONESIA	2
C	THAILAND	1
C	CAMBODIA	2
C	VIETNAM	2
C	LAOS	2
C	MALAYSIA	1
A	INDONESIA	8
C	INDONESIA	8
A	INDONESIA	38
C	INDONESIA	38

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 9001:2015 ISO 14001:2015 ISO 17025:2017 ISO 17043:2010	BSI ISO 9001 NOV 2022.pdf	BSI ISO9001 QMS 605099 - 001.pdf
Integrated Management System (IMS) covering: ISO 9001:2015 ISO 14001:2015 ISO 17025:2017 ISO 17043:2010	BSI ISO 14001 NOV 2022.pdf	BSI ISO14001 EMS 605098 - 001.pdf
Integrated Management System (IMS) covering: ISO 9001:2015 ISO 14001:2015 ISO 17025:2017 ISO 17043:2010	NATA ISO 17025 APRIL 2024.pdf	NATA ISO 17025 APR 2024.pdf
Integrated Management System (IMS) covering: ISO 9001:2015 ISO 14001:2015 ISO 17025:2017 ISO 17043:2010	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
AAHL-ACDP has a certified Quality Management System (ISO 9001) and is accredited (ISO 17025) for the following scope of works which supports delivery to the Avian Influenza Reference Laboratory designation: Australian Animal Health Laboratory - Accredited Organisation (Site No. 13539) - NATA https://nata.com.au/accredited-organisation/australian-animal-health-laboratory-13546-13539/?highlight=ACDP	NATA/ILAC

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

Yes

The laboratory has a dedicated Biorisk Management Group (18 Members) who provide specialist advice, monitor and improve Biosafety, Biosecurity and Biocontainment activities and perform annual testing and validation on Biocontainment systems. The team uses a biorisk management approach aligned with ISO 35001 to implement a system of managing biosafety and biosecurity across a wide array of biological hazards. The Biorisk Management Group develop and implement standard operating procedures and institutional policies that set the framework for the handling of biological materials across ACDP and provide ultimate assurance that the laboratory activities pose negligible danger to Australia’s agriculture or public health. 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 The 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

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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. Biosafety and biosecurity operations are also audited frequently by Australia's regulatory agencies, the Department of Agriculture, Fisheries and Forestry (DAFF), the Office of the Gene Technology Regulator (OGTR) and the Security Sensitive Biological Agents Regulatory Scheme (SSBA).

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	location	Role (speaker, presenting poster, short communications)	Title of the work presented
Avian Influenza Outbreak and Response Simulation Exercise Workshop – World Bank	2024-06-18	Bhopal, India	Keynote speaker and workshop facilitator	Avian Influenza - Global and regional HPAI surveillance to inform EAD preparedness and response
Regional Seminar for WOAH National Focal Points for Veterinary Laboratories	2024-07-15	Tokyo, Japan	Speaker and session facilitator	Benefits of sharing materials and information to international animal health
Regional Seminar for WOAH National Focal Points for Veterinary Laboratories	2024-07-15	Tokyo, Japan	Speaker	Potential obligations under international legal frameworks for the sharing of biological samples
Regional Seminar for WOAH National Focal Points for Veterinary Laboratories	2024-07-15	Tokyo, Japan	Speaker	Biorisk management – biosafety, biosecurity, bioethics
WOAH Regional Workshop for Avian Disease Prevention and Control in Asia and the Pacific 2024	2024-08-26	Seoul, Republic of Korea	Speaker	Tracking avian influenza - activity update Australia
Pasteur Network Avian Influenza Symposium/Workshop	2024-12-09	Phnom Penh, Cambodia	Speaker	Regional AIV overview agriculture – setting the scene

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?

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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 and disease information sharing 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 contributions on Zoonotic Influenza to the WHO Influenza Vaccine Composition Meetings (VCM).	Participant on disease information sharing	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 Avian Influenza Matching (AIM) project.	Participant on disease information sharing	4	WOAH Reference Laboratories for Avian Influenza in Australia (ACDP), Italy (IZSVe), United Kingdom (APHA) and USA (USDA)
WOAH Regional Representation for Asia and the Pacific Expert Group for Avian Diseases.	Participant on disease information sharing	5	WOAH Reference Laboratories in the Asia-Pacific, including Australia, China, Rep. of Korea, Japan, and India

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen during the past 2 years?

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOAH Ref. Labs/ organising WOAH Ref Lab
OFFLU Molecular PT for the detection of Avian Influenza and characterization from different lineages and regions.	Organiser and Participant	11	WOAH Reference Laboratories from Australia (Organiser), Brazil, Canada, China, Egypt, Germany, India, Italy, Korea, United Kingdom, 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
		Contributing WOAH Reference Laboratories

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OFFLU (WOAH/FAO Network of Expertise on Animal Influenza) - Avian influenza technical working group	Chairperson and disease information sharing	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 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.	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 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 in Australia (ACDP), Italy (IZSVe), United Kingdom (APHA) and USA (USDA).

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 during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Harmonising existing test methods for PCR detection of Avian Influenza through the Asia Pacific Regional Proficiency Testing Avian Disease PCR Panel	Organiser	29	PCR	BANGLADESH, BHUTAN, BRUNEI, CAMBODIA, CHINESE TAIPEI, HONG KONG, INDIA, INDONESIA, JAPAN, MALAYSIA, NEPAL, PHILIPPINES, SINGAPORE, SRI LANKA, THAILAND, VIETNAM,
Molecular PCR detection of Avian Influenza as part of the Laboratories Emergency Animal Disease Diagnosis and Response (LEADDR) Network.	Organiser and Participant	9	PCR	AUSTRALIA, NEW ZEALAND,

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Detection of Avian Influenza antibodies using an ELISA commercial kit as part of the Laboratories Emergency Animal Disease Diagnosis and Response (LEADDR) Network.	Organiser and Participant	9	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 2024	Seoul, Republic of Korea	Disease Diagnostics, Disease Surveillance Updates, and Laboratory Expertise on Avian Diseases.
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 Animal 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 2024.	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 through the AIM projectlead coordinator at APHA, United Kingdom.	Disease Surveillance and Virus Antigenic Characterisation of H5 HPAI.
WOAH Reference Laboratory for Avian Influenza and OFFLU representation to the WHO-GISRS consultations.	Remote through WHO-GISRS, Geneva.	WOAH/OFFLU contributions to the WHO Tool for Pandemic Risk Assessment (TIPRA) on zoonotic influenza viruses.
Technical and disease expert advice to National Animal Health Authority in Australia.	Remote and in-person through Australian Government Department of Agriculture, Forestry and Fisheries (DAFF), Canberra, Australia.	Outbreak response and review of WOAH Terrestrial Code and Terrestrial Manual on Avian Influenza (via DAFF Australia).

29. Additional comments regarding your report: