

OIE Reference Laboratory Reports Activities

Activities in 2020

This report has been submitted : 2021-01-19 03:24:48

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Highly and low pathogenic avian influenza
Address of laboratory:	CSIRO Australian Centre for Disease Preparedness 5 Portarlington Road East Geelong, Victoria, 3219 AUSTRALIA
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Name (including Title) of Head of Laboratory (Responsible Official):	Prof Trevor Drew Director
Name (including Title and Position) of OIE Reference Expert:	Frank Wong Senior Research Scientist
Which of the following defines your laboratory? Check all that apply:	Governmental

ToR 1: To use, promote and disseminate diagnostic methods validated according to OIE Standards

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 OIE Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests		Nationally	Internationally
cELISA	Yes	1345	11
HI Test	Yes	30	8
Direct diagnostic tests		Nationally	Internationally
Real-time PCR	Yes	4814	296
Virus Isolation	Yes	220	17
PCR / Sequencing	Yes	167	42
Immunohistochemistry	No	4	0
HI Typing	Yes	19	0
IVPA	Yes	1	0
IVPI	Yes	1	0

ToR 2: To develop reference material in accordance with OIE requirements, and implement and promote the application of OIE Standards. To store and distribute to national laboratories biological reference products and any other reagents used in the diagnosis and control of the designated pathogens or disease.

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by the OIE?

No

3. Did your laboratory supply standard reference reagents (non OIE-approved) and/or other diagnostic reagents to OIE Member Countries?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient OIE Member Countries	Region of recipients
Influenza A PCR - Network quality (positive) control	Influenza A Matrix real-time PCR	Produced in-house	5ml	0	1 - Australia	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Influenza A ELISA - Network quality (positive) control	Influenza A ELISA	Produced in-house	2ml	0	1 - Australia	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Influenza A Antigen	Influenza A HI	Produced in-house	0	23ml	1 - Bangladesh	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Influenza A Antisera	Influenza A HI	Produced in-house	0	4ml	1 - Bangladesh	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Influenza virus A positive control antigens	For detection of Avian IVA by PCR. H5, N1, N8, N6, H9, N2, H7, N9 and of swine IAV, H1	Produced in-house	0	31ml	21 - Australia, Cambodia, Indonesia, Lao PDR, Myanmar, Malaysia, Philippines, Thailand, Viet Nam, Singapore, Bhutan, Brunei, Nepal, Bangladesh, Pakistan, India, Sri Lanka, China, Chinese Taipei, Mongolia, New Caledonia	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East

PCR kits (primer and probe) 500 tests per kit - Avian Influenza virus (AIV) A	For detection of AIV by PCR: matrix, H5, H7, H9, N1, N2, N6, N8, N9	Provided from commercial supplier. QA testing at AAHL	0	44 kits	19 - Australia, Cambodia, Indonesia, Lao PDR, Myanmar, Malaysia, Philippines, Thailand, Viet Nam, Singapore, Bhutan, Nepal, Bangladesh, Pakistan, India, Sri Lanka, china, Chinese Taipei, Mongolia, New Caledonia, Brunei	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Equine Influenza Antigen	EI HI	Produced in-house	20ml	0	1 - Australia	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to OIE Member Countries?

No

ToR 3: To develop, standardise and validate, according to OIE Standards, new procedures for diagnosis and control of the designated pathogens or diseases

6. Did your laboratory develop new diagnostic methods validated according to OIE Standards for the designated pathogen or disease?

No

7. Did your laboratory develop new vaccines according to OIE Standards for the designated pathogen or disease?

No

ToR 4: To provide diagnostic testing facilities, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries

8. Did your laboratory carry out diagnostic testing for other OIE Member Countries?

Yes

Name of OIE Member Country seeking assistance	Date (month)	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses
CAMBODIA	January	0	49
PHILIPPINES	December	0	37
PAPUA NEW GUINEA	December	11	0

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

Yes

Name of the OIE Member Country receiving a technical consultancy	Purpose	How the advice was provided
INDONESIA	Laboratory Strengthening focusing on building diagnostic capacities for DIC Wates to become reference centre for avian influenza, and for application of NGS & bioinformatics to EID investigations.	(Virtual) by teleconferences and email communications
MYANMAR	Laboratory Strengthening focusing on Laboratory Quality Assurance and attaining ISO 17025 laboratory accreditation.	(Virtual) by teleconferences and email communications
THAILAND	Proficiency Testing provider training for swine and avian diseases	In loco February 2020 and virtual by online workshop June 2020
PAPUA NEW GUINEA	Provided technical advice on the design of a LIMS (laboratory Information Management System)	(Virtual) by teleconferences and email communications
PAPUA NEW GUINEA	Provided advice, training and reagents for field sampling, laboratory and field diagnostics, serology and for establishing PCR capability for the PNG National Animal Health & Quarantine Inspection Authority	(Virtual) by online workshop, teleconferences and email communications
INDONESIA	Provided guidance on validation steps for development of new molecular Dx tests to evolving avian and animal influenza viruses.	(Virtual) by teleconferences and email communications

ToR 5: To carry out and/or coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations

10. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	OIE Member Countries involved other than your country
Facilitation and implementation of the Influenza Virus Monitoring (IVM) Network and provision of related laboratory support and training in Indonesia	1 year	ACDP provides technical assistance to the continued facilitation of a FAO supported project fostering development of a molecular surveillance information management system through a national influenza virus monitoring network, to detect and monitor the detection of variants of the H5N1 HPAI virus.	FAO/DGLAHS laboratory network in Indonesia	INDONESIA
Diagnostic preparedness for circulating and emerging avian influenza strains from disease outbreaks and surveillance	1 year ongoing	In partnership with the OFFLU network, ACDP receives AI samples and AIV isolates from the region and evaluates the performance of existing diagnostic tests, fine tuning tests here needed, validating new tests, and preparing and distributing reagents regionally for surveillance and diagnosis.	OFFLU & national animal health laboratories in multiple member countries	
WHO Consultation on the Composition of Influenza Virus Vaccines (WHO VCM) - 2020	1 year ongoing	Review the antigenic and genetic characteristics of recent zoonotic avian influenza viruses including A(H5), A(H7) and A(H9) viruses that the WHO Collaborating Centers of the GISRS and the global OFFLU network laboratories receive and assess the need to develop new candidate vaccine seed viruses for pandemic preparedness purposes. ACDP is a core contributor to the OFFLU WHO VCM Technical Activity.	WHO, OFFLU, animal health laboratories in multiple countries.	
Virus characterization and risk assessment of endemic and emerging zoonotic avian influenza and other infectious animal diseases in Cambodia.	1 year ongoing	Determine and review the antigenic and genetic characteristics of recent zoonotic avian influenza viruses including A(H5), A(H7) and A(H9) viruses received from Cambodia.	Institute Pasteur Cambodia (IPC), WHO Collaborating Centre for Reference and Research on Influenza (WHOCRRRI), Melbourne, and NaVRI Cambodia	CAMBODIA

Virus characterization and risk assessment of endemic and emerging zoonotic avian influenza in Myanmar.	1 year ongoing	Determine and review the antigenic and genetic characteristics of recent zoonotic avian influenza viruses including A(H5) and A(H9) viruses received from Myanmar.	LBVD veterinary laboratories Myanmar, and FAO/OFFLU	MYANMAR
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ToR 6: To collect, process, analyse, publish and disseminate epizootiological data relevant to the designated pathogens or diseases

11. Did your Laboratory collect epizootiological data relevant to international disease control?

Yes

If the answer is yes, please provide details of the data collected:
Sample diagnostic and epidemiologic metadata accompanied by virus genetic and antigenic (HI) data

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

Yes

If the answer is yes, please provide details of the data collected:
Sample and epidemiologic metadata accompanied by virus genetic and antigenic (HI) data

13. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category)

a) Articles published in peer-reviewed journals: 9

Ambrose RL, Brice AM, Caputo AT, et al. 2020. Molecular characterisation of ILRUN, a novel inhibitor of proinflammatory and antimicrobial cytokines. *Heliyon*. 6(6):e04115. doi:10.1016/j.heliyon.2020.e04115.

Annand, EJ, High, H, Wong, FYK, et al. Detection of highly pathogenic avian influenza in Sekong Province Lao PDR 2018 - Potential for improved surveillance and management in endemic regions. *Transbound. Emerg. Dis.* 2020; 00: 1- 15. doi.org/10.1111/tbed.13673.

Deng YM, Wong FYK, Spirason N, Kaye M, Beazley R, Grau MLL, Shan S, Stevens V, Subbarao K, Sullivan S, Barr IG, Dhanasekaran V. 2020. Locally Acquired Human Infection with Swine-Origin Influenza A(H3N2) Variant Virus, Australia, 2018. *Emerg. Infect. Dis.* 26(1):143-147. doi: 10.3201/eid2601.191144.

Jia B, Colling A, Stallknecht DE, Blehert D, Bingham J, Crossley B, Eagles D, Gardner IA. 2020. Validation of laboratory tests for infectious diseases in wild mammals: review and recommendations. *J. Vet. Diag. Invest.* 32(6):776-792.

Hobbs, EC, Colling, A, Gurung, RB, Allen, J. 2020. The potential of diagnostic point-of-care tests (POCTs) for infectious and zoonotic animal diseases in developing countries: Technical, regulatory and sociocultural considerations. *Trans. Emerg. Dis.* 2020. 00: 1- 15. doi.org/10.1111/tbed.13880.

Horman WSJ, Nguyen THO, Kedzierska K, Butler J, Shan S, Layton R, Bingham J, Payne J, Bean AGD and Layton DS. 2020. The Dynamics of the Ferret Immune Response During H7N9 Influenza Virus Infection. *Front. Immunol.* 11:559113. doi: 10.3389/fimmu.2020.559113.

Mohr PG, Williams J, Tashiro M, Streltsov JA, McKimm-Breschkin JL. 2020. Substitutions at H134 and in the 430-loop region in influenza B neuraminidases can confer reduced susceptibility to multiple neuraminidase inhibitors.

Antiviral Res. 182:104895. doi.org/10.1016/j.antiviral.2020.104895.

Pharo EA, Williams SM, Boyd V, Sundaramoorthy V, Durr PA, Baker ML. 2020. Host-Pathogen Responses to Pandemic Influenza H1N1pdm09 in a Human Respiratory Airway Model. Viruses. 12(6):679.

Yamaji R, Saad MD, Davis CT, Swayne DE, Wang D, Wong FYK, McCauley JW, Peiris JSM, Webby RJ, Fouchier RAM, Kawaoka Y, Zhang W. 2020. Pandemic potential of highly pathogenic avian influenza clade 2.3.4.4 A(H5) viruses. Rev. Med. Virol. 30:e2099. doi.org/10.1002/rmv.2099.

b) International conferences: 0

c) National conferences: 0

d) Other:

(Provide website address or link to appropriate information) 2

OFFLU contribution to the WHO VCM on zoonotic influenza:

https://www.who.int/influenza/vaccines/virus/characteristics_virus_vaccines/en/

OFFLU contribution to WHO TIPRA:

https://www.who.int/influenza/human_animal_interface/tipra/en/

ToR 7: To provide scientific and technical training for personnel from OIE Member Countries

To recommend the prescribed and alternative tests or vaccines as OIE Standards

14. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

Yes

a) Technical visits: 3

b) Seminars: 1

c) Hands-on training courses: 2

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
C	Thailand	22
C	Thailand	15
A	Papua New Guinea	6
A	Myanmar	15
A	Papua New Guinea	10
B	Indonesia	10

ToR 8: To maintain a system of quality assurance, biosafety and biosecurity relevant for the pathogen and the disease concerned

15. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
ISO 17025 & ISO 17043	ISO 17043 and 17025 Certificates.pdf
ISO 9001	ISO9001 Certification Expiry 30-11-2022.pdf
ISO 14001	ISO14001 Certification Expiry 30-11-2022.pdf

16. 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 (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 (ILAC affiliated)
Detection and identification of viruses (PCR - Quantitative (qPCR))	NATA (ILAC affiliated)
Necropsy services (Microscopic examination; Anatomical pathology)	NATA (ILAC affiliated)
Molecular analysis - Bioinformatic analysis and interpretation (To be determined; Analysis of DNA alignment; DNA alignment to reference sequence)	NATA (ILAC affiliated)
Molecular analysis - Sequencing (Sanger sequencing)	NATA (ILAC affiliated)
Microbiology - Serology of infection - Microbial antibody and/or antigen detection and/or quantitation (Haemagglutination inhibition)	NATA (ILAC affiliated)
Microbiology - Serology of infection - Microbial antibody and/or antigen detection and/or quantitation (Agar gel immunodiffusion (AGID))	NATA (ILAC affiliated)
Microbiology - Serology of infection - Microbial antibody and/or antigen detection and/or quantitation (Enzyme linked immunosorbent assay (ELISA))	NATA (ILAC affiliated)
Detection and identification of viruses (Embryonated egg culture; Haemagglutination Inhibition)	NATA (ILAC affiliated)
Accreditation No: 13546 (scope last change 2020)	

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

Yes

(See *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*, Chapter 1.1.4)

ToR 9: To organise and participate in scientific meetings on behalf of the OIE

18. Did your laboratory organise scientific meetings on behalf of the OIE?

Yes

National/ International	Title of event	Co-organiser	Date (mm/yy)	Location	No. Participants
International	OFFLU Avian Influenza Technical Activity Group Meeting 11 Sep 2020	OIE, FAO	09/20	Virtual by Zoom	10
International	OIE-RR Asia-Pacific GF-TAD Regional Expert Network for Poultry Diseases in Asia and the Pacific	OIE	12/20	Virtual by Zoom	30

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
OIE-RR Asia-Pacific GF-TAD Regional Expert Network for Poultry Diseases in Asia and the Pacific	12/20	Virtual by Zoom (OIE RRAP Tokyo)	Co-organizer; invited speaker	Introduce draft updates of Code and Manual of Avian Influenza
OFFLU Swine Influenza (IAV-Sw) Technical Activity Group Annual Meeting	12/20	Virtual by Zoom (OIE Paris)	Invited speaker	IAV-Sw update for Australia
WHO GISRS PCR Experts Working Group (PCRWG) meetings for the Molecular Detection and Subtyping of Influenza Viruses and the use of Next Generation Sequencing (NGS) in GISRS	10/20	Virtual by Zoom (WHO Geneva)	Invited speaker	OFFLU EQA for PCR detection of IAV
OFFLU Avian Influenza Technical Activity Group Meeting	09/20	Virtual by Zoom (OIE Paris)	Co-organizer; invited speaker	Asia Pacific update on AI; AI TA strategic plan

ToR 10: To establish and maintain a network with other OIE Reference Laboratories designated for the same pathogen or disease and organise regular inter-laboratory proficiency testing to ensure comparability of results

20. Did your laboratory exchange information with other OIE Reference Laboratories designated for the same pathogen or disease?

Yes

21. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease by organising or participating in proficiency tests?

Yes

Purpose of the proficiency tests: ¹	Role of your Reference Laboratory (organiser/participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
OFFLU Molecular PT for detection of avian influenza A to inform on the capability of the OFFLU Reference Laboratories to detect and characterize isolates of AIV from different lineages and regions	Organiser & participant	12	OFFLU AI Ref Labs - Australia, Brazil, Canada, Russia, Italy, India, UK, Japan, 2x USA, Germany, 1x undisclosed (participants)/ CSIRO ACDP - Australia (Organiser)
FAO/OIE sponsored PT to assess detection of avian diseases, including Avian Influenza Matrix and H-Subtypes A and Avian Paramyxoviruses, in the Asia-Pacific Region	Organiser & participant	27	OIE member labs in Asia and the Pacific (participants)/ CSIRO ACDP - Australia (Organiser)

¹ validation of a diagnostic protocol: specify the test; quality control of vaccines: specify the vaccine type, etc.

22. Did your laboratory collaborate with other OIE 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 OIE Reference Laboratories
OFFLU contribution to the WHO Consultation on the Composition of Influenza Virus Vaccines (WHO VCM)	Collate, analyze and review the antigenic and genetic characteristics of recent zoonotic avian influenza viruses including A(H5), A(H7) and A(H9) viruses that the global OFFLU network laboratories receive for the WHO Collaborating Centers of the GISRS to assess needs for new candidate vaccine seed viruses for pandemic preparedness purposes.	OFFLU Reference Laboratories & the OFFLU VCM Technical Activity Network
OFFLU Avian Influenza Technical Activity	Produced and contributed to epizootiological and surveillance data and analyses for Swine Influenza in the Oceania region toward global AI surveillance and risk assessments.	OFFLU Reference Laboratories & the OFFLU Avian Influenza Technical Activity Network
OFFLU Swine Influenza Technical Activity	Produced and contributed to epizootiological and surveillance data and analyses for Swine Influenza in the Oceania region toward global SI surveillance and risk assessments	OFFLU Reference Laboratories & the OFFLU Swine Influenza Technical Activity Network
WHO Tool for Influenza Pandemic Risk Assessment (TIPRA)	Contributed to H5Nx and H9N2 guidance document updates for the WHO Tool for Influenza Pandemic Risk Assessment (TIPRA)	OFFLU and WHO influenza Reference Laboratory network

ToR 11: To organise inter-laboratory proficiency testing with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results

23. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than OIE Reference Laboratories for the same disease?

Yes

Note: See Interlaboratory test comparisons in: Laboratory Proficiency Testing at: <http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing> see point 1.3

Purpose for inter-laboratory test comparisons ¹	No. participating laboratories	Region(s) of participating OIE Member Countries
Avian Disease - Harmonising existing test methods (specify: PCR for H5 /H7 AIV and ND detection)	27	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Swine Disease - Harmonising existing test methods (specify: PCR for CSF/ASF/PRRS/SIV detection)	30	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Detection of Terrestrial and Avian diseases by Australian & New Zealand laboratories: •African swine disease •Avian Influenza •Avian Paramyxovirus •Bluetongue virus •Classical Swine Fever Virus •Hendra virus •Foot and mouth disease virus	13	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East

ToR 12: To place expert consultants at the disposal of the OIE

24. Did your laboratory place expert consultants at the disposal of the OIE?

Yes

Kind of consultancy	Location	Subject (facultative)
Global laboratory Leadership Programme (GLLP)	Member countries	Review of section 2E - Managing Emergencies
Review SOP for OIE validation, certification and registration process	Member countries	Review SOP for OIE validation, certification and registration process
Review of OIE Manual Chapter	Member countries	Management of veterinary laboratories
Ad Hoc Group on Sustainable Laboratories	Member countries	OIE Ad Hoc Group on Sustainable Laboratories (PVS Pathway)
OFFLU WHO VCM Technical Activity Group	OFFLU Network	Zoonotic influenza surveillance and risk assessment to the WHO influenza vaccine composition meetings (VCM)
OFFLU Executive Committee member	OFFLU Network	Review OFFLU strategy, activities and collaborations, and planning of future Technical Activities (TA's)
OFFLU Avian Influenza Technical Activity	OFFLU Network	Co-Chair; OFFLU strategies for global avian influenza surveillance and support
OFFLU Swine Influenza Technical Activity	OFFLU Network	OFFLU strategies for global swine influenza surveillance and support
OFFLU Influenza in Wildlife Technical Activity	OFFLU Network	OFFLU strategies for global influenza surveillance and support in wildlife
WHO Global Influenza Surveillance and Response System (GISRS) PCR Experts Working Group (PCRWG)	OFFLU Network	OFFLU representative to the WHO GISRS PCR Experts Working Group (PCRWG) meetings for the Molecular Detection and Subtyping of Influenza Viruses and the use of Next Generation Sequencing (NGS)

25. Additional comments regarding your report:

Due to COVID-19, ACDP has worked on limited operational capacity since March 2020 (for example, adopting roster arrangements for staff site access, reduced site access to ensure physical distancing, no domestic or international travel and visitors unable to attend site for most of the year). This has significantly limited ACDP's capacity to carry out planned research and conduct training and has limited some types of diagnostic submissions to the laboratory.

Question 10

Diagnostic preparedness for circulating and emerging avian influenza strains from disease outbreaks and surveillance - multiple countries

WHO Consultation on the Composition of Influenza Virus Vaccines (WHO VCM) - 2020 - multiple countries

Question 24 - continued

Kind of consultancy - OFFLU Proficiency Testing (PT) Program provider

Location - OFFLU Reference Laboratories

Subject - Coordinator of the OFFLU AI Molecular Testing PT Program to OFFLU Ref Labs

Kind of consultancy - OIE-RR Asia-Pacific GF-TAD Regional Expert Network for Poultry Diseases in Asia and the Pacific

Location - Asia and the Pacific OIE Member countries

Subject - Contribution of expertise to the GF-TAD regional network of OIE Reference Laboratories for Avian Influenza, Newcastle Diseases and other poultry diseases in Asia Pacific

Kind of consultancy - OIE Terrestrial Manual: chapter on Avian influenza (including infection with high pathogenicity avian influenza viruses)

Location - Member countries

Subject - Review and comments to OIE Terrestrial Manual: Chapter and Code revision on Avian influenza