

**OFFLU Technical Activities / Projects / Resources (updated April 2024)**

OFFLU focal point	Technical Activity (TA) and Leader	Purpose	Deliverables	Progress	Status
<b>ACTIVE TECHNICAL ACTIVITIES</b>					
Gounalan/ Mariana/ /Amelia	<b>Avian influenza TA</b>  (Frank Wong/David Suarez)	Proficiency testing exercise among WOA/FAO Reference Centres	Harmonisation of diagnostic protocols	ACDP, Australia leads organising the proficiency testing exercise among WOA/FAO Reference Centres on annual basis.	ONGOING
		H9 Nomenclature	Unified H9 nomenclature/cl assification scheme	Led by IZSVe, Italy lab with a group of experts finalised a publication and submitted for peer review publication	ONGOING
		Technical expertise and advice	Assess emergence of new strains, analysis in change of epidemiology	Experts convened through teleconferences for data and protocols. Technical advice and expertise shared for national laboratories	ONGOING
		Act as a source of scientific expertise and advice to WOA, FAO and WHO on matters relating to the design and assessment of AI vaccines and their use in poultry  Act as a source of scientific advice on vaccine efficacy  Act as a source of scientific advice for assessment of vaccine effectiveness in field situations	Technical advice on vaccines and vaccination	OFFLU vaccination technical meeting was held at Beijing during 4 – 6 December 2013. Meeting documents including recommendations of the meeting are posted on the OFFLU website <a href="https://www.offlu.org/index.php/offlu-china/">https://www.offlu.org/index.php/offlu-china/</a>  A technical meeting was organised at FAO Headquarters in March 2017 to engage participating laboratories for data compilation and analysis and to progress the process and methods for AI virus characterisation process <a href="https://www.offlu.org/index.php/ai-rome-2017/">https://www.offlu.org/index.php/ai-rome-2017/</a>	To be activated when needed

Gounalan/ Mariana/A melia	Swine influenza TA  (Amy Vincent/ Janice Zanella)	Coordinate and harmonise global swine influenza surveillance	Sharing of SIV data  Research updates  Technical advice as needed through meetings/teleco nference/emails  Publications Euro Swine risk publication?	Technical meetings held regularly at WOAHA/FAO Headquarters <a href="https://www.offlu.org/index.php/technical-meetings/">https://www.offlu.org/index.php/technical-meetings/</a>  Manuscript on "Review of influenza A virus in swine worldwide: a call for increased surveillance and research" was accepted for publication in Zoonoses and Public Health journal. <a href="http://onlinelibrary.wiley.com/doi/10.1111/zph.12049/pdf">http://onlinelibrary.wiley.com/doi/10.1111/zph.12049/pdf</a>  Global antigenic diversity of SIV <a href="https://elifesciences.org/content/5/e12217">https://elifesciences.org/content/5/e12217</a>  SIV H1 clade nomenclature search tool <a href="https://www.fludb.org/brc/influenza_h1clade_search_segment.spg?method=ShowCleanSearch&amp;decorator=influenza">https://www.fludb.org/brc/influenza_h1clade_search_segment.spg?method=ShowCleanSearch&amp;decorator=influenza</a>	ON GOING
Gounalan/ Mariana/A melia	Wildlife/wild bird influenza TA  (Thijs Kuiken/Andre w Breed)	- To provide a platform for discussion, coordination, and data sharing between key wildlife experts involved in influenza surveillance and research - Regular review of the OFFLU Research Priorities on Avian Influenza: Wild Birds - To review existing findings from 10 years of extensive wild bird surveillance and highlight the main outputs - To explore and answer specific technical questions - To decide whether there is a need to develop/coordinated a low-cost targeted wild bird surveillance strategy at a global level accounting for existing surveillance programmes - To provide OFFLU with technical expertise on influenzas in wild animals	Technical advice as needed through meetings/teleco nferences/email s  Publications	Teleconferences conducted at regular intervals to share the situation update and action items followed up.  A concept note for global surveillance for influenza A viruses in wild birds developed  <a href="https://www.offlu.org/wp-content/uploads/2023/12/OFFLU-wildlife-statement-no.-II.pdf">https://www.offlu.org/wp-content/uploads/2023/12/OFFLU-wildlife-statement-no.-II.pdf</a>  <a href="https://www.offlu.org/wp-content/uploads/2023/11/OFFLU-statement-HPAI-wildlife-South-America-20230823.pdf">https://www.offlu.org/wp-content/uploads/2023/11/OFFLU-statement-HPAI-wildlife-South-America-20230823.pdf</a>	ONGOING

Gounalan/ Mariana	Equine influenza TA (Ann Cullinane)	To share field data and characteristics of virus isolated every year to assist in updating the vaccine recommendations for equine influenza every year	Vaccine recommendations	The group meets on annual basis to share data and update vaccine recommendations  <a href="http://www.WOAH.int/en/our-scientific-expertise/specific-information-and-recommendations/equine-influenza/">http://www.WOAH.int/en/our-scientific-expertise/specific-information-and-recommendations/equine-influenza/</a>	ONGOING
Lorcan	Applied Epidemiology	1. Identification of the pathways leading to the introduction, spread and maintenance of relevant avian influenza viruses in different eco-social system settings and estimate the risks associated with these pathways, within the context of structured risk assessments  2. Development of appropriate risk management options for relevant avian influenza viruses in different eco-social system settings, including the design of surveillance systems and their components□	Technical advice as needed through meetings/teleconferences/emails  Publications	A new applied epidemiology technical working group was formed and the members convened for their first meeting in June 2017 to finalise the terms of reference and work plan.  <a href="https://www.offlu.org/wp-content/uploads/2021/03/OFFLU_AETWG_TOR_Jan_2018.pdf">https://www.offlu.org/wp-content/uploads/2021/03/OFFLU_AETWG_TOR_Jan_2018.pdf</a>	ONGOING
FAO	Socio-economics (Jonathan Rushton)	-Understanding of the social and economic impact of influenza viruses in animals and their impact on humans -The undertaking of analyses or studies to identify institutionalized behavioural blockages to changes in practices that could lead to better zoonotic influenza control, in any or all of society at large, commercial practices or regulatory agencies -Development of social and economic assessments to demonstrate the social and economic profitability or cost-effectiveness of any research or intervention programme proposed	Technical advice as needed through meetings/teleconferences/emails  Publications	The concept note and membership of the technical activity discussed but did not progressed further.	NOT YET STARTED
Francesco Bonfante, Amy Vincent, Amelia Coggon	WHO Vaccine Composition Meeting contributions	Swine and Avian	Zoonotic avian and swine influenza genetic and antigenic data	Biannual contribution of zoonotic AI and SI data  <a href="https://www.offlu.org/index.php/offlu-vcm-summary-reports/">https://www.offlu.org/index.php/offlu-vcm-summary-reports/</a>	ONGOING

Ashley Banyard/Amelia Coggon	Avian Influenza Matching	Develop an international system for comparing vaccine antigens with field strains in regions or situations where vaccination is undertaken, and for recommending candidate antigens for inclusion in vaccines	Monitoring of antigenic change	<p>Concept note of the activity <a href="https://www.offlu.org/wp-content/uploads/2022/11/Concept-note-OFFLU-AIM.pdf">https://www.offlu.org/wp-content/uploads/2022/11/Concept-note-OFFLU-AIM.pdf</a></p> <p>Power point <a href="https://www.offlu.org/wp-content/uploads/2023/02/OFFLU-AIM-Pilot-Feb23.pdf">https://www.offlu.org/wp-content/uploads/2023/02/OFFLU-AIM-Pilot-Feb23.pdf</a></p> <p>OFFLU avian influenza matching pilot report Oct 2023 <a href="https://www.offlu.org/wp-content/uploads/2023/11/OFFLU-AIM-REPORT-2023.pdf">https://www.offlu.org/wp-content/uploads/2023/11/OFFLU-AIM-REPORT-2023.pdf</a></p>	
<b>Ad hoc activities as needed</b>					
Ian Brown /David Swayne	OFFLU Research Agenda	A comprehensive list of Research Priorities for equine, avian, and swine influenza surveillance		<p>OFFLU – STAR IDAZ partnered to develop a global animal influenza research agenda in 2014 <a href="https://www.offlu.org/index.php/offlu-star-idaz/">https://www.offlu.org/index.php/offlu-star-idaz/</a></p> <p><a href="https://www.offlu.org/wp-content/uploads/2021/01/OFFLUsurveillance.pdf">https://www.offlu.org/wp-content/uploads/2021/01/OFFLUsurveillance.pdf</a></p>	Update as needed
Mia Torchetti	Biosafety	To provide guidance on minimum standards for handling AI viruses in veterinary laboratories	Practical biosafety guidelines	<p>Biosafety guidance for handling HPAI viruses; Biorisk management guidelines for handling avian influenza A(H7N9) viruses in veterinary laboratories</p> <p><a href="https://www.offlu.org/index.php/biosafety/">https://www.offlu.org/index.php/biosafety/</a></p>	Update as needed.
Ian Brown/David Swayne/Amelia Coggon	MTAs and Code of Conduct	<p>Working group to develop a code of conduct for virus and information sharing (alternative to MTAs) focussing on collegial values and trust</p> <p>Working group involves with WHO and CDC to study the PIP framework implications for animal health laboratories</p>	<p>A user friendly alternative to MTAs</p> <p>Implications of WHO PIP framework on sharing of influenza biological</p>	<a href="https://www.offlu.org/index.php/sharing-material-and-information-2/?et_fb=1&amp;PageSpeed=off">https://www.offlu.org/index.php/sharing-material-and-information-2/?et_fb=1&amp;PageSpeed=off</a>	Update as needed

			material between animal health laboratories and WHO GISRS laboratories		
Gounalan/ Mariana/ A melia	Training	<ul style="list-style-type: none"> <li>- draw lessons learnt in terms of AI testing training</li> <li>- develop/select e-learning systems and define the possible applications (eg. pre-requisite for an international training)</li> <li>- develop recommendations on AI training</li> <li>- develop a train the trainers program</li> <li>- develop/compile common OFFLU training material (including videos)</li> <li>- develop a database of trainees (to be managed then by the OFFLU secretariat)</li> <li>- identify training needs based on overall PT results</li> <li>- envisage perspectives of common human health/animal health training and lab/epi training</li> </ul>	Training material Recommendations	<p>Following activities carried out:</p> <ul style="list-style-type: none"> <li>(i) A specific training tab was created in the OFFLU website to post various influenza related training materials that may be endorsed by OFFLU executive committee</li> <li>(ii) Posted videos on AI sampling procedures and lab techniques (IZSve-FAO)</li> <li>(iii) Collection and posting of training materials available and potentially useful: <ul style="list-style-type: none"> <li>- e-learning course (Flu-Train),</li> <li>- several books</li> <li>- DVDs</li> <li>- other web-based trainings freely accessible</li> </ul> </li> <li>(iv) Development and posting of the influenza chapter of an FAO glossary of new and updated diagnostic assays. Proposed as future OFFLU document</li> </ul>	Update as needed
<b>Historical technical activities, projects and other activities</b>					
Timm Harder	RNA standard	<ul style="list-style-type: none"> <li>• To develop an RNA standard</li> </ul>	Universally usable RNA standard initially for H5 avian influenza virus targeted	<p>FLI have developed an RNA standard. To obtain RNA standard contact <a href="mailto:tim.harder@fli.de">tim.harder@fli.de</a> or <a href="mailto:Christian.grund@fli.de">Christian.grund@fli.de</a> and ask for RNA standards. Material can be supplied as run-off RNA transcripts at a fixed copy number (which may decrease upon shipping) or as plasmids for own production of run-off RNA. RNA</p>	COMPLETED

			PCR assays	is provided for the Spackman M1.2, the AHVLA recommended H5 and the FLI developed N1, NP and H7 assays.	
Anja Globig	Evaluation of a modified LAMP specific for H5-gene and testing its suitability under field conditions	Evaluation and validation of a modified LAMP in ready-to-go tubes with lyophilized Mastermix (provided by IAEA) with different H5-strains  Further evaluation by boiling instead of conventional extraction and by use of water bath and SYBR Green for visualization  Testing the efficacy of the LAMP in regional laboratories, e.g. Nepal, Ghana by use of region-specific H5-strains including training of lab-staff	Robust and cheap diagnostic technology	This WOAHA funded project started on 1 December 2010 and the final report submitted in October 2013.	COMPLETED
David Swayne	An assessment of components of global avian influenza control programmes	A comprehensive evaluation to identify the strengths and weaknesses of control strategies used in different countries and regions in varying contexts. A framework describing which components should be considered for future control strategies.	Scientific and technical review and recommendations	Project completed. Findings presented to OFFLU. Two manuscripts on the project published in the WOAHA Scientific and Technical Review	COMPLETED
<b>Other activities</b>					
OFFLU secretariat/FAO	OFFLU information brochure	Leaflet to introduce about OFFLU and its activities	Nice colourful informative brochure	Completed <a href="https://www.offlu.org/wp-content/uploads/2020/09/OFFLU_brochure_v2-29-May-2015.pdf">https://www.offlu.org/wp-content/uploads/2020/09/OFFLU_brochure_v2-29-May-2015.pdf</a>	Update as needed
OFFLU Secretariat/FAO	OFFLU annual report	To summarise OFFLU activities every year for wider dissemination	Annual report of OFFLU	2023 report published <a href="https://www.offlu.org/wp-content/uploads/2024/02/OFFLU_Annual_Report_2023.pdf">https://www.offlu.org/wp-content/uploads/2024/02/OFFLU_Annual_Report_2023.pdf</a>	Annual update
OFFLU Secretariat/FAO	SWOT report	To look at OFFLU's progress and direction moving forward			

Amelia	Tripartite activities	<p>Mapping gaps in avian Influenza pandemic risk activities manuscript on the options for improving the real time assessment of pandemic risk of avian influenza viruses.</p> <p>Framework which aims to harmonize and enhance the tripartite response relative to the occurrence of priority zoonotic influenza events, by describing in a concise manner the necessary actions to be undertaken by tripartite organisations and affiliated influenza technical experts during such events.</p>		<p>Aim to publish this in probably in the WHO Bulletin as an article in the Policy and Practice section.</p>	ON GOING
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