

OFFLU Technical Activities / Projects / Resources (updated Jan 2020)

OFFLU focal point	Technical Activity and Leader	Purpose	Deliverables	Progress	Status
ACTIVE TECHNICAL ACTIVITIES					
Gounalan (GP) /Cristian (CB)	Avian influenza virus TA (Frank Wong/David Suarez)	Proficiency testing exercise among OIE/FAO Reference Centres	Harmonisation of diagnostic protocols	AAHL, Australia led the proficiency testing exercise among OIE/FAO Reference Centres for year 2018. Update on the PT 2017 results: http://www.offlu.net/fileadmin/home/en/meeting-reports/pdf/OFFLU_Brighton/offlu_AAHL-PT_2018_CWaugh.pdf	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
		Vaccination issues -Act as a source of scientific expertise and advice to OIE, FAO and WHO on matters relating to the design and assessment of AI vaccines and their use in poultry -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 -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	Monitoring of antigenic change 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 http://www.offlu.net/index.php?id=303 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 http://www.offlu.net/index.php?id=330	ONGOING

GP/CB	WHO Vaccine Composition Meeting TA (Nicola Lewis)	Contribution of zoonotic influenza data to biannual WHO vaccine composition meetings	Zoonotic avian/swine influenza genetic and antigenic data	Biannual contribution of zoonotic AI data http://www.who.int/influenza/resources/documents/characteristics_virus_vaccines/en/ http://www.offlu.net/index.php?id=318	ONGOING
GP	Swine influenza virus TA (Taki Saito/ Gilles Simon)	Coordinate and harmonise global swine influenza surveillance	Sharing of SIV data Research updates Technical advice as needed through meetings/teleconference/emails Publications	Seventh annual meeting held at OIE Headquarters in Feb 2019 http://www.offlu.net/?id=384 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. http://onlinelibrary.wiley.com/doi/10.1111/zph.12049/pdf Global antigenic diversity of SIV https://elifesciences.org/content/5/e12217 SIV H1 clade nomenclature search tool https://www.fludb.org/brc/influenza_h1clade_search_segment.spg?method=ShowCleanSearch&decorator=influenza	ON GOING
GP	Wildlife/wild bird influenza TA	- To provide a platform for discussion, coordination, and data sharing between key wildlife experts involved in influenza	Technical advice as needed through	Teleconferences conducted at regular intervals to share the situation update and action items followed up.	ONGOING

	(Andrew Breed)	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	meetings/teleconferences/emails Publications	A concept note for global surveillance for influenza A viruses in wild birds developed	
GP	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 met in April 2019 to share data and update vaccine recommendations http://www.oie.int/en/our-scientific-expertise/specific-information-and-recommendations/equine-influenza/	ONGOING
CB	Applied Epidemiology (Dirk Pfeiffer)	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	Earlier Applied epidemiology group outputs: OFFLU animal influenza surveillance strategy document completed and posted on line http://offlu.net/OFFLU%20Site/OFFLUsurveillancePH1N1_180110.pdf 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. http://www.offlu.net/index.php?id=376	ONGOING
GP	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	Technical advice as needed through meetings/teleconferences/emails	The concept note and membership of the technical activity drafted.	ABOUT TO START

		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	ferences/emails Publications		
Ad hoc activities as needed					
Ian Brown and David Swayne	OFFLU Research Agenda	A comprehensive list of Research Priorities for equine, avian, and swine influenza surveillance		OFFLU – STAR IDAZ partnered to develop a global animal influenza research agenda in 2014 http://www.offlu.net/fileadmin/home/en/publications/pdf/300714/OFFLU_STAR-IDAZ_Executive_Summary_final.pdf OFFLU research agenda developed in 2010 An editorial was prepared for publication in Influenza and other Respiratory Viruses journal.	Update as needed
Mia Torchetti	Biosafety	To provide guidance on minimum standards for handling AI viruses in veterinary laboratories	Practical biosafety guidelines	Biosafety guidance for handling HPAI viruses – published in OIE Diagnostic Manual and OFFLU website http://offlu.net/OFFLU%20Site/biosafety.pdf Biorisk management guidelines for handling avian influenza A(H7N9) viruses in veterinary laboratories http://www.offlu.net/fileadmin/home/en/guidance/pdf/Biosafety_guidelines_H7N9.pdf	Update as needed.
Ian Brown/ David Swayne	MTAs and Code of Conduct and PIP framework	Working group to develop a code of conduct for virus and information sharing (alternative to MTAs) focussing on collegial values and trust Working group involves with WHO and CDC to study the PIP framework implications for animal health laboratories	A user friendly alternative to MTAs Implications of WHO PIP framework on sharing of	http://www.offlu.net/index.php?id=169 http://www.offlu.net/fileadmin/home/en/resource-centre/pdf/MTA.pdf	Discussion with WHO if needed

			influenza biological material between animal health laboratories and WHO GISRS laboratories		
CB	Training (Giovanni Cattoli)	<ul style="list-style-type: none"> - draw lessons learnt in terms of AI testing training - develop/select e-learning systems and define the possible applications (eg. pre-requisite for an international training) - develop recommendations on AI training - develop a train the trainers program - develop/compile common OFFLU training material (including videos) - develop a database of trainees (to be managed then by the OFFLU secretariat) - identify training needs based on overall PT results - envisage perspectives of common human health/animal health training and lab/epi training 	Training material Recommendations	<p>Following activities carried out:</p> <ul style="list-style-type: none"> (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 (ii) Posted videos on AI sampling procedures and lab techniques (IZSVE-FAO) (iii) Collection and posting of training materials available and potentially useful: <ul style="list-style-type: none"> - e-learning course (Flu-Train), - several books - DVDs - other web-based trainings freely accessible (iv) Development and posting of the influenza chapter of an FAO glossary of new and updated diagnostic assays. Proposed as future OFFLU document 	Update as needed
Historical technical activities, projects and other activities					
Timm Harder	RNA standard	<ul style="list-style-type: none"> • To develop an RNA standard 	Universally usable RNA standard initially for H5	FLI have developed an RNA standard. To obtain RNA standard contact tim.harder@fli.bund.de or Christian.grund@fli.bund.de and ask for RNA standards.	COMPLETED

			avian influenza virus targeted PCR assays	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 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 OIE funded project started on 1 December 2010 and the final report submitted in October 2013. Final report posted on the website http://www.offlu.net/fileadmin/home/en/offlu-projects/pdf/offlu-lamp-final_report.pdf	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 frame work 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 OIE Scientific and Technical Review http://web.oie.int/boutique/extrait/18swayne839870.pdf http://web.oie.int/boutique/extrait/02pavade661671.pdf	COMPLETED
Other activities					
GP/CB	OFFLU information brochure	Leaflet to introduce about OFFLU and its activities	Nice colourful informative brochure	Completed http://www.offlu.net/fileadmin/home/en/about-us/pdf/OFFLUleaflet.pdf	Update as needed
GP/CB	OFFLU annual report	To summarise OFFLU activities every year for wider dissemination	Annual report of OFFLU	2018 report published. http://www.offlu.net/fileadmin/home/en/publications/pdf/OFFLU_Annual_Report_2018.pdf	Annual update