



# OFFLU Annual Report 2011

OFFLU continues to work towards its vision by improving coordination of global efforts to detect, prevent and control influenzas in animals, ultimately reducing risks to animals and humans, and improving livelihoods worldwide. OFFLU regularly collaborates with the public health sector to address the zoonotic potential of animal influenzas at the human-animal interface. We are happy to present our annual report for the year 2011.

## Evaluation of avian influenza control measures

i)  
<http://web.oie.int/boutique/extrait/18swayne839870.pdf>

ii)  
<http://web.oie.int/boutique/extrait/02pavade661671.pdf>

OFFLU conducted a comprehensive evaluation of avian influenza control measures especially the vaccine and vaccination component of the control programs applied in 69 countries. As an outcome two manuscripts have been published in the OIE

Scientific and Technical Review:

i) Assessment of national strategies for control of high-pathogenicity avian influenza and low-pathogenicity notifiable avian influenza in poultry, with emphasis on vaccines

and vaccination.

ii) The influence of economic indicators, poultry density and the performance of Veterinary Services on the control of high-pathogenicity avian influenza in poultry.

<http://www.offlu.net/index.php?id=150>

## LAMP project

This OFFLU project, funded by OIE, aims at evaluation and validation of selected Loop-mediated isothermal amplification (LAMP) with emphasis on avian influenza and testing its suitability under field conditions to

improve the diagnostic capacities of developing countries in animal disease detection. The key output of the project for 2011 is to include evaluation and validation of a modified LAMP with different H5

strains, experiments on RNA preparation using different boiling methods for rapid sample preparation using LAMP array compared to real-time RT-PCR.

<http://www.offlu.net/index.php?id=92>

[http://www.fao.org/avianflu/en/news/indonesia\\_OFFLU\\_hpai.html](http://www.fao.org/avianflu/en/news/indonesia_OFFLU_hpai.html)

## Vaccine projects

OFFLU avian influenza vaccine efficacy projects were undertaken by FAO in Indonesia and Egypt to characterize the circulating H5N1 viral strains and to

evaluate the efficacy of vaccines used against the identified strains. The projects have been completed and recommendations for the

revision of vaccine strategy including criteria for vaccine selection have been submitted to the Ministry of Agriculture.

<http://www.offlu.net/index.php?id=172>

## Epidemiological information

A yearly update on H5N1 HPAI distribution worldwide for the year 2010 was published by FAO and is available online at OFFLU website.

The OFFLU scientists at FAO have developed an Empres-i Genetic module to link epidemiological data in Empres-i with sequence data held in the OpenFlu

database. This genetic module after validation is planned for use to researchers, influenza projects and gene observatory.

<http://www.offlu.net/index.php?id=193>

## Swine influenza virus group

Global level surveillance data is needed to improve pig health and productivity, and ultimately to reduce the potential risk of human influenza epidemics or pandemics. The world's leading swine influenza experts met in April 2011 in

Paris to set a course for coordinating world-wide influenza surveillance in pigs. This initiative has been launched by OFFLU to create an international platform to collect, share and analyse data about influenza viruses circulating in pig populations

world-wide. The meeting summary and presentations are available in the website

The group's next meeting is planned for 27-28 March 2012 at OIE headquarters, Paris.

## Collaboration with public health partners

i) [http://www.who.int/influenza/resources/documents/characteristics\\_virus\\_vaccines/en/index.html](http://www.who.int/influenza/resources/documents/characteristics_virus_vaccines/en/index.html)

ii) [http://www.offlu.net/fileadmin/home/en/human-animal-interface/pdf/WHO\\_OFFLU\\_contribution.pdf](http://www.offlu.net/fileadmin/home/en/human-animal-interface/pdf/WHO_OFFLU_contribution.pdf)

iii) [http://offlu.net/fileadmin/home/en/human-animal-interface/pdf/Minutes\\_of\\_OFFLU\\_Proficiency\\_testing.pdf](http://offlu.net/fileadmin/home/en/human-animal-interface/pdf/Minutes_of_OFFLU_Proficiency_testing.pdf)

iv) [http://www.offlu.net/fileadmin/home/en/human-animal-interface/pdf/Offlu\\_review\\_paper\\_intervention\\_strategies\\_Nov\\_2011.pdf](http://www.offlu.net/fileadmin/home/en/human-animal-interface/pdf/Offlu_review_paper_intervention_strategies_Nov_2011.pdf)

[http://www.offlu.net/fileadmin/home/en/human-animal-interface/pdf/Offlu\\_literature\\_review\\_paper\\_on\\_virus-specific\\_factors\\_Nov\\_2011.pdf](http://www.offlu.net/fileadmin/home/en/human-animal-interface/pdf/Offlu_literature_review_paper_on_virus-specific_factors_Nov_2011.pdf)

v) [http://www.who.int/influenza/gisrs\\_laboratory/h5n1\\_nomenclature/en/index.html](http://www.who.int/influenza/gisrs_laboratory/h5n1_nomenclature/en/index.html)

[http://www.offlu.net/fileadmin/home/en/news/pdf/11\\_09\\_trip\\_artite\\_notes\\_on\\_H5N1.pdf](http://www.offlu.net/fileadmin/home/en/news/pdf/11_09_trip_artite_notes_on_H5N1.pdf)

[http://www.who.int/influenza/gisrs\\_laboratory/terminology\\_ah3n2v/en/](http://www.who.int/influenza/gisrs_laboratory/terminology_ah3n2v/en/)

i) OFFLU continues to contribute antigenic and genetic data for H5N1 and H9N2 avian influenza viruses isolated in OFFLU laboratories to the WHO influenza vaccine composition meetings to assist with selection of candidate viruses for use in vaccine development to protect against zoonotic or pandemic influenza. Around 262 new HA sequences for H5N1 have been generated and shared with the OFFLU network for contribution to the September 2011 meeting. The data provided a cornerstone for pre-pandemic vaccine preparedness discussions.

ii) OFFLU participated in the WHO informal consultation

in improving the influenza vaccine virus selection process.

iii) OFFLU held discussions with WHO for collaboration between Global Influenza Surveillance and Response System (GISRS) and OFFLU laboratories in developing a harmonized approach to proficiency tests for avian influenza between different regions.

iv) WHO research agenda: WHO organised a global consultation to develop a public health research agenda for influenza. OFFLU experts provided contributions to the research stream entitled "Reducing the risk of emergence of pandemic influenza" by presenting

review papers on "Animal intervention strategies under different epidemiological and field conditions that can reduce risk of zoonotic infection" and "Virus-specific factors associated with zoonotic and pandemic potential"

v) OFFLU also participated with WHO in developing:

- Unified nomenclature system and virus clades for influenza viruses.
- Technical updates on evolution of avian influenza H5N1 viruses.
- Standardization of terminology for the variant A(H3N2) virus recently infecting humans.

## Increased visibility

In 2011 OFFLU experts participated in 33 international meetings and conferences to deliver lectures and expert opinion

on influenza related activities.

The OFFLU website was restructured to improve the visibility of OFFLU; to

highlight OFFLU experts achievements and contributions; and to better communicate with the wider scientific community.

**www.offlu.net**