Notes on OFFLU (WOAH-FAO Expertise on Animal Influenza) Meeting at the 11th International Symposium on Avian Influenza

St. John's, Newfoundland, Canada
23 June 2025
14:00–16:30

On 23 June 2025, OFFLU (the WOAH/FAO Network of Expertise on Animal Influenza) held a special half-day side meeting alongside the 11th International Symposium on Avian Influenza in St. John's, Canada, attended by ~120 influenza experts. The meeting marked 20 years of OFFLU and aimed to inform attendees of OFFLU activities, review current actions, identify gaps, and discuss future directions through a series of presentations and active discussions.

Overview

Dr Gounalan Pavade (WOAH Scientific Coordinator and OFFLU Secretariat) and Dr Lorcan Carnegie (FAO Molecular Epidemiologist and OFFLU Scientist) opened the meeting by thanking participants for their attendance and encouraging open dialogue and constructive feedback.

Professor Ian Brown (Pirbright Institute and Chair of the OFFLU Steering Committee) opened the technical session with an overview presentation reflecting on two decades of OFFLU's contributions to animal influenza research. He highlighted how the network has evolved in response to the changing epidemiology of influenza, including the emergence of new hosts and geographic spread, and showcased key outputs from across the network.

Dr Francesco Bonfante (ISZVe) followed with a presentation on OFFLU's role in the WHO vaccine composition meetings for zoonotic influenza, outlining the structure of the current data package and providing examples where viral sequences and animal surveillance data provided through OFFLU directly informed candidate vaccine virus (CVV) recommendations. He emphasized the critical importance of virus and sequence contributors to this process and the need for broader engagement with researchers and laboratories worldwide.

Professor Ashley Banyard (APHA) then provided an update on the OFFLU Avian Influenza Matching (AIM) project, focusing on antigenic characterization of contemporary avian influenza strains and future directions, including the strategic use of reverse genetics. The session concluded with an extended group discussion, during which participants were encouraged to provide feedback on how to strengthen AIM—particularly regarding its uptake, communication, and ways to enhance collaboration with industry stakeholders to maximize its impact on animal health (see **Discussion 1** below for details).

After a short break, Dr Erik Karlsson (Institut Pasteur du Cambodge and Chair of the OFFLU Avian Technical Working Group) introduced the global A/H5 genotyping tool currently being developed under the OFFLU consortium. This initiative aims at unifying characterization methodology and nomenclature of influenza reassortants of the H5 goose/Guangdong lineage and involves multiple institutions and experts, including key technical contributions from Professor Tommy Lam and Zoe Song (University of Hong Kong). Dr. Karlsson outlined the working group's proposed standardized naming system and strategies for regular genotype updates.

Dr Alice Fusaro (IZSVe) then presented an overview of the proposed global classification and nomenclature system for A/H9 influenza viruses. She highlighted the development of supporting tools and noted that the system has recently been endorsed by OFFLU and is already being widely adopted across OFFLU activities.

Finally, Dr Andrew Breed (Australian Government, Department of Agriculture, Fisheries and Forestry, and co-chair of the OFFLU Wildlife Technical Working Group) shared recent outputs from the Wildlife Group. These included statements on the spread and impact of high pathogenicity avian influenza (HPAI) in wildlife populations in South America and Antarctica—and their ongoing efforts to provide a global overview of HPAI in wildlife.

The meeting concluded with an open discussion on the topics presented (see **Discussion 2** below for more details). Attendees—including both current OFFLU contributors and those not actively involved—were invited to propose future research directions and highlight opportunities for strengthened collaboration across the OFFLU network.

Summary of Discussion 1: OFFLU Avian Influenza Matching (AIM) Project

Key Themes & Participant Reflections Included:

1. Use of AIM Sera for Antigen Evaluation
   - There was interest in using the AIM sera panel to evaluate novel antigens, including those developed through computational design.
   - It was, however, noted that while some companies are pursuing broader antigenic coverage through optimized or engineered HA constructs, much of this work remains proprietary or unpublished.

2. Advancing Antigenic Mapping Techniques
   - Antigenic cartography can be applied beyond haemagglutinin inhibition (HI) assays, including microneutralization data, offering more robust analyses.
   - These expanded approaches could help define correlates of cross-protection, support vaccine design, and strengthen collaboration with industry partners.

3. Needs and Data Transparency
   - Participants highlighted the importance of knowing which vaccines are in active use, as this impacts the interpretation of diagnostics and surveillance data.
   - Despite proprietary challenges, OFFLU and the AIM initiative were recognized for their role in generating impartial, evidence-based guidance.

4. Setting Realistic Expectations for Vaccines
   - Participants debated whether sterilizing immunity is a realistic goal for avian influenza vaccines, given existing limitations even in human vaccines.
   - Although full sterilizing immunity may be unlikely, progress in vaccine platforms and delivery methods can still significantly improve outcomes of HPAI infections.

5. Future Directions and Collaboration
   - The session concluded with a call for stronger, mutual partnerships between OFFLU, vaccine developers, and diagnostic companies.
   - An engagement forum is planned to promote continued dialogue and facilitate technical collaboration going forward.

Summary of Discussion 2: Reflections, Gaps, and Next Steps for OFFLU

Key Themes & Participant Reflections Included:

1. Visibility, Communication & Engagement
   - Challenge of visibility: Several attendees noted that OFFLU is still poorly known in some regions, especially South America.
   - Social media absence: Questions were raised about OFFLU's public presence, especially beyond official FAO/WOAH channels.

2. Regional Participation
   - Relatively limited South American involvement: Multiple attendees from Brazil and Argentina emphasized the lack of regional representation at the meeting and in OFFLU activities. Reasons included costs, lack of awareness, and conflicting meetings.
   - Suggestions:
     - Align OFFLU activities with regional meetings to improve participation.
     - Increase outreach and awareness in Latin America.
     - Ensure OFFLU representation at FAO's upcoming meeting "Tackling High Pathogenicity Avian Influenza (HPAI) Together" in Brazil (September 2025).

3. Surveillance Gaps & Strategic Targeting
   - Wildlife surveillance: Strong consensus that OFFLU needs to emphasize the inclusion of non-avian wildlife (e.g., marine mammals, rodents), particularly given emerging spillovers.
   - Strategic surveillance: Calls for OFFLU to publish regular reports (e.g., biannually) summarizing:
     - Specific geographic and temporal surveillance gaps.
     - Wildlife vs domestic bird data shortfalls.
     - Surveillance priorities that might help guide donors and national programs.
   - Ecologist input: OFFLU was encouraged to deepen engagement with population ecologists to better understand wildlife population dynamics, mortality, and disease impact.

4. Inclusivity & Participation
   - In response to questions, OFFLU steering committee members reaffirmed the openness of the network to new members, encouraging early-career scientists and others to reach out via the Secretariat (secretariat@offlu.org).
   - OFFLU was described as a unique, inclusive platform compared to other animal disease networks, which tend to be more closed.

The session ended on a high note, with strong turnout and valuable contributions from a diverse group. OFFLU leadership committed to reviewing and incorporating suggestions via the Steering Committee, highlighting the importance of collective ownership and shared purpose within the network.

"OFFLU is not a closed club – we welcome engagement from anyone willing to actively contribute."