Avian Influenza Matching (AIM) Pilot

Scope and objectives

- Vaccination against high pathogenicity avian influenza is already being used in countries where viruses are endemic. There is growing interest in vaccination in countries which have never previously considered vaccination as a tool for threat mitigation.
- A range of vaccines are in use which can provide broad cross protection against a range of H5 viruses, however antigenic heterogeneity and drift can potentially reduce the effectiveness of vaccines in protecting against disease and shedding of virus from infected birds.
- Providing information to stakeholders on the antigenic characteristics of currently circulating avian influenza viruses can be used to facilitate the selection of appropriate vaccines for poultry and used in conjunction with other information.

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The Animal and Plant Health Agency (APHA, UK) and Istituto Zooprofilattico Sperimentale delle Venezie (IZSVe, Italy) are generating a panel of poultry sera and homologous antigens. This will serve as an OFFLU standard for the antigenic characterization of currently circulating avian influenza viruses. This will allow for the assessment of avian influenza virus evolution, between OFFLU laboratories in a harmonised way. Outputs will be antigenically mapped by the Royal Veterinary College (RVC, London) using cartography. Reference sera panels will be shared with partners to expand geographical representation. Results will allow for continuous monitoring of antigenic changes in currently circulating viruses and inform the continuous expansion and updating of sera panels.

Food and Agriculture Organization of the United Nations

World Organisation for Animal Health
Founded as OIE

offlu
WOAH FAO
network of expertise on animal influenza

Avian Influenza Matching (AIM) Pilot Study

Sera
- Generation of a panel of standardised poultry sera - **December 2022**
- Isolates *similar* to vaccine seed strains and H5 clade 2.3.4.4b

HI
- Selection of representative contemporary viruses – **February 2023**
- Harmonised antigenic characterisation

Cartography
- Antigenic characterisation mapped using cartography **– March 2023**

Report
- Summary report presenting the antigenic diversity of currently circulating H5 viruses
- Shared with stakeholders **- April 2023**