Dr Peter Daniels, Chair of the Steering Committee (SC) and Dr David Swayne, Chair of the Executive Committee (EC) opened the meeting and led the meeting to discuss the agenda.

The Committees reviewed the action points arising from the meeting in September 2016. Most of the action points had been completed while some are continuing tasks and are covered below.

**Equine influenza virus technical activity (TA) updates (Nicola Lewis):**

The Expert Surveillance Panel on Equine Influenza Vaccine Composition meeting was held at OIE Headquarters, 22 March 2017. The meeting was attended by equine influenza experts from OIE Reference Laboratories, WHO Laboratories and other national laboratories representing UK, Ireland, France, Sweden, USA, Argentina, China, Germany, India and Japan. The experts discussed the equine influenza (EI) activity in 2016. During this period, individual animal cases and outbreaks of EI were reported by Ireland, Sweden, the UK and the USA. After reviewing the field data, genetic and antigenic characteristics, it was concluded that the EI viruses isolated in 2016 were from clades 1 and 2 of the Florida sublineage and were similar to those identified in 2015. The meeting recommended that EI vaccines should contain both clade 1 and clade 2 viruses of the Florida sublineage. [http://www.oie.int/en/our-scientific-expertise/specific-information-and-recommendations/equine-influenza/](http://www.oie.int/en/our-scientific-expertise/specific-information-and-recommendations/equine-influenza/)

**Swine influenza virus TA updates (Nicola Lewis):**

The swine influenza virus (SIV) technical activity held its annual meeting at FAO headquarters, 27 – 28 March 2017. The committee regretted the absence of China and Hong Kong representatives despite invitations and no offers to substitute experts.

The meeting started with a session on current influenza surveillance in pigs by continent, in which experts updated surveillance data and research activities since December 2015. Novel SIV variants were detected in many regions, arising through both re-assortment and re-introduction from humans (Denmark). Also some ‘older’ variants were detected which require further assessment.
European lineage 1c A/H1N1v viruses were detected in 2016 in Italy and the Netherlands. A public health update regarding SIV was provided by CDC and the experts discussed potential ways to move forward with SIV submissions to the WHO VCM and what would be needed to do this well.

Swine risk assessment pipeline work is in progress. The risk to animal and public health defined by metrics from the SIV pipeline, with full antigenic characterization at NADC or APHA, could feed appropriate data into an OFFLU antigenic characterization model and into the WHO VCM. After completing the SIV H1 nomenclature task, the group is now working on developing the SIV H3 nomenclature tool.

The Committees were also advised of an approach from STAR IDAZ and DISCONTOOLS for OFFLU SIV expert involvement in their update of the research agenda. Ariel Pereda of the SIV is involved and will report to the SIV co-chairs, who will advise the OFFLU committees. It was noted again by the Committees that OFFLU proposes to update the OFFLU-STAR IDAZ research agenda developed in 2014 after the current WHO research Agenda update is completed. In that way OFFLU proposes that its research agenda will be synchronized with the public health pandemic preparedness agenda, hopefully avoiding the possibility of conflicting agendas being published.

**Action points:**
1. Lidewij to liaise with Richard and Todd of the SIV TA to discuss with WHO (through formal approach from Chairman, Steering Committee) the possibility of including SIV data in the WHO VCM process. Consider an SIV output slide for WHO VCM?
2. Peter to seek clarification from STAR IDAZ and DISCONTOOLS on their requirements. He will advise that OFFLU proposes to update the OFFLU-STAR IDAZ research agenda after the current WHO research Agenda update is completed.
3. Yi Guan to be invited to the next SIV meeting as a Hong Kong representative (Gounalan)
4. The DG (OIE) will take up the issues of Chinese participation and data sharing with the Ministry of Agriculture, China, during a planned visit to China in April 2017 (Tianna, Gounalan).

**Applied Epidemiology group TA updates (Sophie Von Dobschuetz):**

The concept note, terms of reference and list of experts to be associated in this technical activity was approved by the Steering and Executive Committee. A proposed representative from South Africa, Dr Folorunso Fasina, was approved. Dr Dirk Pfeiffer will act as the Chairman of the group and Sophie (FAO) will act as the focal point for this activity. To initiate the TA, FAO proposed a face to face meeting at FAO Headquarters, Rome, in June 2017.

**Action points:**
1. The review of last ten years of influenza surveillance in wild life will be one of the task of this group (Sophie)
2. OIE to check if funding available for a few participants for the proposed June 2017 face to face meeting to share the costs with FAO (Gounalan)
**Wildlife group TA updates (Billy Karesh):**

Two teleconferences were conducted (in November 2016 and March 2017) for discussion, coordination and data sharing among key wildlife experts involved in influenza surveillance and research activities. There were pleasing levels of participation by the experts in the teleconferences. The bringing in of additional experts in ornithology worked well to provide an update on the wild bird influenza activity going around the world. The OFFLU situation Report and guidance document for H5N8 and other Eurasian H5 clade 2.3.4.4 avian Influenza viruses was updated at each occasion. The experts also shared various useful articles related to surveillance and diagnostic results of recent publications.

**Action points:**
1. Billy to remind the OIE Delegates about the importance of influenza surveillance in wild birds, reporting and data sharing in his General Session presentation in May 2017.

**WHO VCM meeting updates (Lidewij and Mia):**

The OFFLU zoonotic avian influenza contribution to the February 2017 WHO VCM was useful and positively received. However certain strategies could be adopted in future for improvement. It was proposed to collect a global epidemiological overview of avian influenza activity from WAHID, EMPRESi, OFFLU epidemiology group and wildlife group. The genetics data could be assisted by the avian and swine TA and EMPRES genetic module. The generation of antigenic data could be assisted by the AI TA, including CDC/St.Jude.

Microreact methodology (Imperial College) of presenting the data worked well in the February 2017 VCM. It is easy to use and can be put up on the website after agreement from the contributors. Sensitive data could be masked.

It was mentioned that WHO may have reservations regarding the policy of OFFLU expert rotation in the VCM because continuity is important in that forum. The Committees noted, that request for the need for continuity was the reason for the previously designated OFFLU participants filling the role for up to 4 VCM meetings.

**Action points:**
1. The OFFLU VCM report should be shared with the contributing labs for feedback (Lidewij, Gounalan)
2. The covering letter to the individual labs requesting data should be modified explaining the VCM process and benefits (Lidewij, Gounalan)

**Socio-economics TA updates (Peter Daniels and Astrid Tripodi):**

Dr Jonathan Rushton who was the proposed Chair of this group has moved to the veterinary faculty in Liverpool but is still interested in the activity. Dr Rushton proposed a revised proposal of concept note in March 2017 which was circulated to the Committee members. Astrid, who is involved at FAO on influenza value chain socioeconomics, will also be part of this group.
Action points:

1. A teleconference to be organized with the proposed members of the group for consent on the program and follow up (Peter and Gounalan)

Avian influenza TA updates (Ian Brown):

Dr Brown presented the way forward for possible activities following the Avian Influenza (AI) virus characterisation meeting, March 29 -30 March, 2017 at FAO Headquarters.

- Keep the inventory of AI vaccines available commercially updated
- Hold an OFFLU technical workshop to develop concepts for improved H5 and H9 vaccination strategies to review what can be done, including
  - propose pilot activities,
  - conduct gap analyses,
  - promote protocol standardization
  - research relative benefits in using chicken or ferret antisera in antigenic analyses
  - agree a standardized challenge study design
  - create a reagent inventory
  - plan for data generation
  - hold a cartography workshop
- Use data prepared for the VCM for early warning on changes in circulating viruses
- Draft improved criteria for assessing vaccine efficacy which define correlates of protection, link antigenic characterization with challenge studies to define trigger points. Future inputs into the OIE Manual could be proposed.
- Establish OFFLU panels (antisera and antigens), pilot with selected OFFLU partners
- Conduct specific studies/use existing data – identify data e.g. VCM
- Raise funding for all this work (Write a proposal and submit it to donors, as a gap analysis listing activities that can already be funded with existing resources in different OFFLU labs)
- Communicate with stakeholders (Interaction with the WHO network and training for decision makers?)

Action points:

1. Update the inventory of commercially available vaccines, liaising with Industry (Ian, David, Lidewij)
2. Establish a working group within the OFFLU AI TA (Ian, David)
3. Draft proposed criteria for vaccine efficacy (David)
4. Standardization of protocols/reference panels for defined purposes (Ian)
5. Communication with stakeholders (David, Ian)

OFFLU Proficiency Testing (PT) (Ian Brown):

AAHL, Australia will be assembling a panel with support from network for the OFFLU proficiency testing involving all OIE/FAO Reference Centres and St. Jude. Molecular diagnostic algorithms will be applied. The participants will pay for the shipment and the exercise is to be completed in 2017.
Action points:

1. AAHL will write to all OIE/FAO Reference Centres with details of the PT (Peter to liaise with Frank Wong of AAHL)
2. Anonymised feedback to each participant (Secretariat assisting AAHL/Frank Wong)
3. Given voluntary participation only anonymised results will be available to OFFLU/FAO/OIE, consistent with the ISO 17043 standard under which the PT round will be delivered.

**Update of Influenza A Cleavage Site Document (Ian Brown):**

The last update of the document was done by SEPRL, USA, in December 2016.

Action points:

1. Timely updates to be overseen by the OFFLU scientist and to include H5 from UK and H7N9 (Lidewij Wiersma)

**10th International Symposium on Avian Influenza (Ian Brown):**

The symposium is scheduled 15 - 18 April 2018, The Grand Hotel, Brighton, UK. The co-chairs of the symposium will be Dr Ian Brown and Dr David Swayne.

An OFFLU meeting will be planned side by side to this meeting as previous years on the last day.

Action points:

1. When publishing online about the International symposium, also include information about the OFFLU meeting on the last day. The participants to the ISAI can be asked to confirm participation to the secretariat@offlu.net (Ian Brown)