

ORGANIZED BY   

# FAO - OIE - WHO Joint Technical Consultation on **A**avian Influenza at the human-animal interface

Palazzo Verità Poeta, Verona, Italy | 7 - 9 October 2008



The Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE) and the World Health Organization (WHO), with support from the Istituto Zooprofilattico Sperimentale delle Venezie (IZSVE) and the EC funded project FLUTRAIN, have called this technical consultation to

- identify critical virological characteristics for the emergence of zoonotic and pandemic viruses
- evaluate external factors affecting the evolution and emergence of a pandemic strain, and identify monitoring mechanisms for pandemic strain emergence
- identify likely modes of transmission and exposure sources for zoonotic infection with avian influenza viruses
- maximise outcome of ongoing research and preparedness efforts and identify gaps in knowledge
- identify next steps for further integrated data collection, analysis and research

IN COLLABORATION WITH



PATRONAGE AND FINANCIAL CONTRIBUTION





## Tuesday 7 October

### WELCOMES AND MEETING OBJECTIVES/METHODS OF WORK

MODERATOR: ILARIA CAPUA

#### Welcomes

|            |                         |
|------------|-------------------------|
| 9.00–9.10  | <i>Romano Marabelli</i> |
| 9.10–9.15  | <i>Isabel Minguéz</i>   |
| 9.15–9.35  | <i>Joseph Domenech</i>  |
| 9.35–9.55  | <i>Bernard Vallat</i>   |
| 9.55–10.15 | <i>Keiji Fukuda</i>     |

#### Objectives of the meeting and methods of work

10.15–10.25 *Ilaria Capua*

**10.25–10.50 Coffee**

### SESSION 1: VIROLOGICAL CHARACTERISTICS OF INFLUENZA VIRUSES

OBJECTIVE: TO IDENTIFY VIROLOGICAL CHARACTERISTICS IMPORTANT FOR ZONOTIC AND PANDEMIC DISEASE

MODERATORS: RUBEN DONIS, GIOVANNI CATTOLI

RAPPORTEUR: TARA ANDERSON

#### Session 1.a: Epidemiology, distribution, and phylogeny of currently circulating animal influenza viruses

|             |   |
|-------------|---|
| 10.50–11.10 | Overview of human cases of AI H5N1 since 1997<br><i>Sylvie Briand</i>           |
| 11.10–11.30 | Overview of animal outbreaks of AI H5N1 globally since 1997<br><i>Ian Brown</i> |
| 11.30–11.45 | Phylogeny of avian H5N1 viruses infecting humans<br><i>Mike Perdue</i>          |
| 11.45–12.00 | Circulation of other zoonotic avian influenza viruses<br><i>Ilaria Capua</i>    |

#### Session 1.b: Viral determinants of zoonotic infectivity and pathogenicity in humans

|                    |  |
|--------------------|--|
| 12.00–12.30        | Effects of single mutations and virus-level factors on influenza transmissibility/infectivity/pathogenicity in humans<br><i>Ron Fouchier</i> |
| <b>12.30–13.30</b> | <b>Lunch</b>   |
| 13.30–13.45        | Receptors and host specificity<br><i>Mikhail Matrosovich</i>   |
| 13.45–14.00        | Zoonotic potential of other animal influenza viruses<br><i>Kristien Van Reeth</i>  |
| 14.00–14.15        | Specific characteristics of interest for public health<br><i>Masato Tashiro</i>  |
| 14.15–14.30        | Occurrence in animal viruses of mutations with potential human health implications in Africa<br><i>Giovanni Cattoli</i>                      |
| 14.30–15.30        | Panel discussion for Session 1<br>Thread leaders: <i>Ron Fouchier, Malik Peiris</i><br>Panel: speakers and moderators from session 1         |
| <b>15.30–16.00</b> | <b>Coffee</b>  |
| 16.00–16.30        | Panel discussion for Session 1 (continued)   |
| 16.30–17.00        | Major points for inclusion in final recommendations  |
| <b>17.30–20.00</b> | <b>Welcome cocktail (at venue)</b>   |



## Wednesday 8 October

### SESSION 2: EVOLUTION AND EMERGENCE OF A PANDEMIC STRAIN

OBJECTIVE: TO EVALUATE THE FACTORS AFFECTING EVOLUTION AND EMERGENCE OF A PANDEMIC STRAIN AND IDENTIFY MONITORING FOR EMERGENCE OF A PANDEMIC STRAIN

MODERATORS: ILARIA CAPUA, MIKE PERDUE

RAPPORTEUR: TARA ANDERSON

#### Session 2.a: Viral determinants and ecological conditions affecting mutation rate/probability of reassortment

- 08.30–08.45 Evolution of human pandemic viruses  
*Richard Webby*
- 08.45–9.00 Evolution of H5N1 in birds  
*Gavin Smith*
- 09.00–09.15 Viral characteristics of H5N1 influencing mutation/reassortment events with pandemic potential  
*Ruben Donis*
- 09.15–09.30 External factors influencing H5N1 mutation/reassortment events with pandemic potential  
*Ab Osterhaus*

#### Session 2.b: Monitoring for important viral changes

- 09.30–09.45 The WHO process for monitoring of novel influenza strains  
*Alan Hay*
- 09.45–10.00 Role of antigenic cartography in monitoring  
*Derek Smith*
- 10.00–10.15 OFFLU activities at the Human-Animal interface  
*Gwenaelle Dauphin*

#### 10.15–10.45 Coffee (30 min)

- 10.45–11.45 Panel discussion for Session 2  
Thread leaders: *Ab Osterhaus, Alan Hay*  
Panel: speakers and moderators from session 2
- 11.45–12.15 Major points for inclusion in final recommendations (30 minutes)

#### 12.15–13.15 Lunch (60 min)

### SESSION 3: HUMAN TRANSMISSION RISKS & EXPOSURE SOURCE

OBJECTIVE: TO IDENTIFY LIKELY MODES OF TRANSMISSION AND EXPOSURE SOURCES FOR ZOO NOTIC INFECTION WITH AVIAN INFLUENZA VIRUSES

MODERATORS: MALIK PEIRIS, STEFANO MARANGON

RAPPORTEUR: TARA ANDERSON

#### Session 3.a: Modes of transmission for human infection with avian influenza viruses

- 13.15–13.30 Modes of transmission for human seasonal influenza virus  
*Allison McGeer*
- 13.30–13.45 Possible modes of transmission of avian viruses to people  
*David Swayne*

#### Session 3.b: Exposure risk for human infection with avian influenza viruses

- 13.45–14.00 Potential sources of exposure to H5N1 for WHO confirmed human cases  
*Liz Mumford*
- 14.00–14.15 Potential role of exposure to poultry products and by-products in human H5N1 infections  
*David Swayne*
- 14.15–14.30 Potential role of live animal markets and the environment in human exposure to avian influenza viruses  
*Malik Peiris*
- 14.30–14.45 Indonesian's Healthy Food Markets Program and Food Safety  
*Gina Samaan*
- 14.45–15.00 Effects of poultry management on risk of human exposure (at the community level)  
*Les Sims*

#### 15.00–15.30 Coffee (30 min)



- 15.30–15.45 Review of culturally-relevant poultry/human interactions  
*Wantanee Kalpravidh*
- 15.45–16.00 Evidence to explain the low incidence in the face of large population-level exposure  
*Peter Horby*
- Session 3.c: Summaries of national data on human exposure from selected affected countries**
- 16.00–16.10 National data: Summary of animal health information relevant to human exposure to H5N1 in China  
*Hualan Chen*
- 16.10–16.20 National data: Summary of exposure data in Chinese human cases of H5N1  
*Zhou Lei*
- 16.20–16.30 National data: Summary of animal health information relevant to human exposure to H5N1 in Egypt  
*Mona Ali*
- 16.30–16.40 National data: Summary of exposure in Egyptian human cases  
*(TBA)*
- 16.40–16.50 National data: Summary of animal health information relevant to human exposure to H5N1 in Indonesia  
*Elly Sawitri*
- 16.50–17.00 National data: Summary of exposure data in Indonesian human case  
*Wilfried Purba*
- 17.00–17.10 National data: Summary of animal health information relevant to human exposure to H5N1 in Viet Nam  
*Tung Nguyen*
- 17.10–17.20 National data: Summary of exposure data in Vietnamese human cases  
*Hien Nguyen*
- 17.20–17.30 Clarifications from this session (discussion to be held on 9/10)

## Thursday 9 October

- 8.30–10.00 Panel discussion for Session 3  
Thread leaders: *David Swayne, Keiji Fukuda*  
Panel: speakers and moderators from session 3
- 10.00–10.30 Major points for inclusion in final recommendations
- 10.30–11.00 Coffee (30 min)**

### SESSION 4: DEVELOPMENT OF MEETING OUTPUT

MODERATORS: ALEX THIERMANN

PANEL: ILARIA CAPUA, KEIJI FUKUDA, JUAN LUBROTH

RAPPORTEUR: TARA ANDERSON

- 11.00–13.00 Development of technical meeting output
- 13.00 Close of technical consultation on Avian Influenza**
- 13.00–14.00 Lunch (60 min)**

### SESSION 5: BROADENING THE USE OF TOOLS AND SYSTEMS

MODERATOR: LONNIE KING

- 14.00–14.30 Importance of the HAI in the broader sense  
*Lonnie King*
- 14.30–14.45 Tools and methods used to evaluate emergence of other zoonotic diseases  
*Pierre Formenty*
- 14.45–15.00 GLEWS  
*Juan Lubroth*
- 15.00–16.00 Discussion and development of recommendations  
Chair: *Lonnie King*  
Overview Committee: *Pierre Formenty, Wantanee Kalpravidh, Juan Lubroth, JC Manuguerra, Stefano Marangon, Vincent Martin, Angela Merianos, Marguerite Pappianou, Alex Thiermann, Boubacar Seck*
- 16.00–16.10 Closing remark
- 16.10 End of the meeting**