

Expert Advice on Controlling Avian Influenza

13 September 2006

Sponsored by:



Presented by:



Publisher of



&



Our guest speakers today are:



Dr. Ilaria Capua

Dr. Capua is currently Head of the Virology Department at Istituto Zooprofilattico Sperimentale delle Venezie, Padova, Italy and Head of the National, FAO and OIE Reference Laboratories for Avian Influenza and Newcastle disease.



Dr. Les Sims

Dr. Sims is a veterinarian (*BVSc Hons, University of Melbourne, 1977*) and a member of the Australian College of Veterinary Scientists in diagnostic pathology. He has worked for government veterinary services in Australia, Papua New Guinea and Hong Kong in animal pathology and animal disease management.

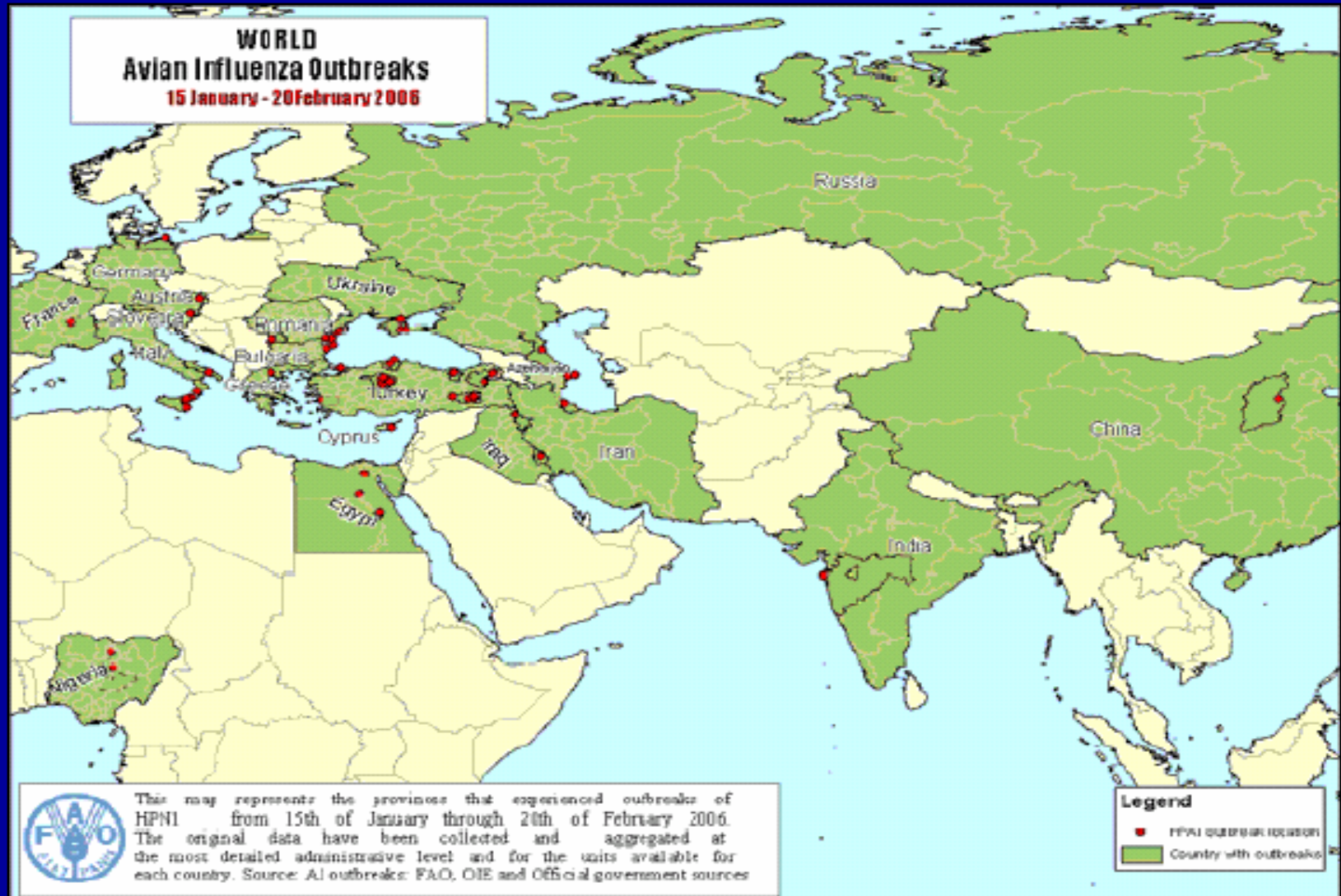
Dr. Ilaria Capua

- ❖ **Directly involved in managing several AI and ND epidemics and in 2000 developed the “DIVA”-Differentiating Vaccinated from Infected Animals strategy, based on heterologous vaccination, to combat AI.**
- ❖ **In 2005 Dr. Capua was nominated the Chairman of OFFLU- the newly established OIE/FAO network on Avian Influenza.**
- ❖ **She is currently a member of the Panel on Animal Health and Animal Welfare of the European Food Safety Authority (EFSA), and Chairman of the working group on Avian Influenza.**
- ❖ **She is vice coordinator of the EU project “AVIFLU” funded for 2002-2006**
 - ❖ **Recently been granted 1.2 million euros to coordinate an 11 partner project on AI - “FLUAID” - targeted at supporting the Asian AI crisis, developing an EU vaccine bank for AI and investigating other aspects of AI.**
- ❖ **From 1997 to present date she has been invited to give 73 lectures as an international expert and guest lecturer in Europe, the U.S., Central and South America, Africa and Asia.**
- ❖ **Dr. Capua has authored over 180 publications, predominantly on viral diseases of poultry including papers published in international journals, proceedings of conferences, guest editorials, reviews, chapters of books and has co-authored an atlas and text on avian influenza.**

The Control of Avian Influenza Infections in Poultry

*Ilaria Capua & Stefano Marangon
National, OIE and FAO Reference Laboratory for Newcastle Disease
and Avian Influenza,
Istituto Zooprofilattico Sperimentale delle Venezie
Legnaro –Padova, Italy*

World Avian Influenza Outbreaks



General Assumptions

- ❖ **In order to reduce the risk of generating a new human influenza pandemic virus from an avian influenza progenitor, the circulation of these viruses in poultry must be limited, and spill-over to other species (humans, pigs) must be avoided.**
- ❖ **The first line of defense against the introduction and spread of AI is biosecurity. In some cases however, the social, economic and agricultural practices make biosecurity measures impossible to sustain.**

Control and Prevention of AI

A “universal solution” for the prevention and control of AI does not exist. A combination of different strategies must be used on the basis of the characteristics of the poultry industry at risk and of the goals that can be achieved within reason.

Tools for the Control and Prevention of AI

- ❖ Training/investment in knowledge, strengthening of response capacities**

Tools for the Control and Prevention of AI

- ❖ **Biosecurity: AI is NOT airborne. Primary introduction and secondary spread are caused by insufficient bioexclusion and biocontainment at the farm level**
 - ❖ **Movement of infected animals**
 - ❖ **Movement of contaminated materials, fomites and vehicles**
 - ❖ **Movement of staff**

Tools for the Control and Prevention of AI

- ❖ **Vaccination:** should enable the “DIVA” (*Differentiation between Infected and Vaccinated Animals*) concept
 - ❖ Increases resistance to field challenge.
 - ❖ Reduces shedding levels.
 - ❖ Reduces transmission dynamics.
 - ❖ May prevent infection.