



# OFFLU TECHNICAL ACTIVITY ON HPAI VACCINATION

Presented by Peter Daniels

For the Vaccination group



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# Membership



- Peter Daniels
- David Swayne
- Guus Koch
- Ivo Claassen
- Ron Fouchier
- Ian Brown
- Hualan Chen

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Erasmus MC  
Universitair Medisch Centrum Rotterdam  
*Erasmus*



# Terms of Reference



- Act as a source of scientific expertise and advice to OIE, FAO and WHO on matters relating to the design and assessment of AI vaccines and their use in poultry
- Develop an international system for comparing vaccine antigens with field strains in regions or situations where vaccination is undertaken, and for recommending candidate antigens for inclusion in vaccines
- Act as a source of scientific advice on vaccine efficacy
- Act as a source of scientific advice for assessment of vaccine effectiveness in field situations,
  - field trials
  - monitoring and evaluation of vaccinated populations,
  - surveillance for transmission of field strains in vaccinated populations



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# Current activities

- The Indonesian Project
- The Egyptian Project
- A consensus approach to antigenic cartography for HPAI internationally
- Subsequent recommendations on processes to meet the objectives



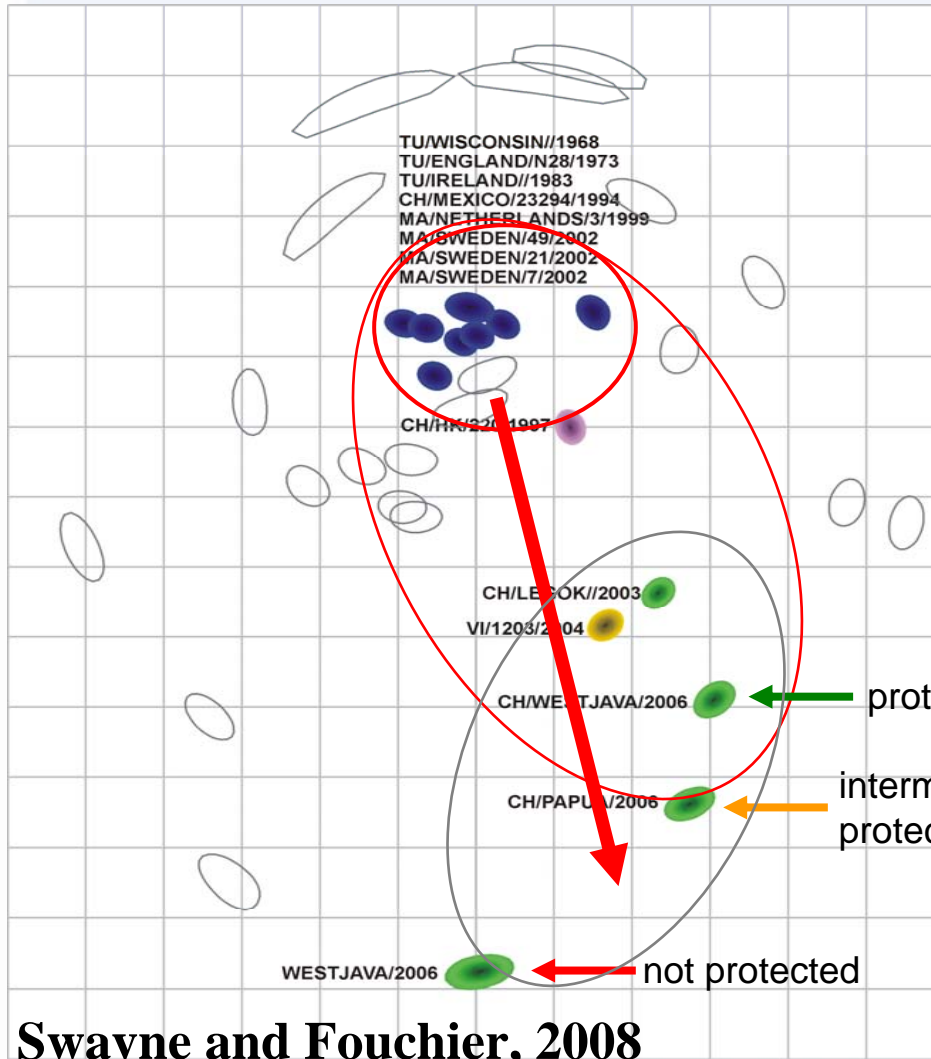
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# Antigenic drift correlates with vaccine challenge studies



- Historic H5 vaccines (blue) are antigenically similar
- Indonesian viruses (green) can be quite antigenically distinct (evidence of antigenic drift)
- Antigenic drift (large red arrow) has impacted on protection by H5 vaccines in the field
- Consistent with results from vaccine challenge studies

protected  
intermediate protection  
not protected

3 challenge viruses

Swayne and Fouchier, 2008



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# Challenge testing of antigenic variants and vaccine strains selection:

- Assessment of reverse genetic vaccine strain(s) generated for Indonesia. Two constructs completed and one has full low pathogenic certification, others in characterization process
- Signing of collaborative MTA between DGLS, AAHL, SEPRL, and industry and receipt of selected vaccine candidate and challenge strains at SEPRL June 2009 to continue vaccine development and challenge testing



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# RE technical recommendations for the vaccination strategy



- Contribution to technical recommendations for a suitable vaccination strategy including monitoring field strains for antigenic variants and communication of results to public and private sector and donor community.
- Further to the FAO interim recommendations submitted to the DGLS in April 2008, an update to the FAO interim recommendations was submitted to the DGLS in June 2009 based upon data analyzed from the OFFLU project
- Consultation with legal firm specializing in intellectual property has been completed, final report is in preparation
- OFFLU Technical review meetings with open forum held June and November 2008
- Presentation at the 7th International Symposium on Avian Influenza in Athens, GA, 5-8 April 2009 "Characterisation of H5 HPAI virus variants in Indonesian poultry – OFFLU Indonesia Project"



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# Thank You



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