

# Defining the objectives, aims and goals of a laboratory network

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WAVLD Meeting Madrid 2009



# Outline

- Introduction
- Reference Laboratories in the EU – aim and scope
- The network of Classical Swine Fever Laboratories
- Duties of the EU Reference Laboratory for CSF
- Duties of the National Reference Laboratories
- Duties of regional laboratories



# Introduction

- Due to political and socio-economic consequences, fast and reliable diagnosis of notifiable animal diseases is of utmost importance
- To ensure that results are comparable and interpretable among laboratories on national and international levels, a harmonized and up-to-date methodology is required
- This can only be achieved if laboratories cooperate on different levels in a laboratory network
- The European network of classical swine fever (CSF) laboratories may serve as an example of such a network

# Reference Laboratories in the EU

- Network of Community and National Reference Laboratories for major animal diseases has been set up within the Community Animal Health Policy
- Sound and uniform testing for appropriate disease diagnosis and for the application of the necessary control and eradication measures
- Community Reference Laboratories (CRL's) have been designated in different Community Decisions, Directives and Regulations



# Reference Laboratories (cont'd)

- Regulation (EC) No 882/2004 lays down the general tasks, duties and requirements for CRLs for food, feed and for animal health (list of CRLs in the annex)
- The Council Directives contain provisions that specify the functions and duties of each designated CRL
- Functions and duties of CRL's in the animal health sector include:
  - Coordination of the methods employed in the Member States for diagnosis of specified animal diseases
  - Arranging training or retraining of experts in laboratory diagnosis

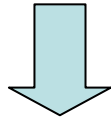
# Laboratory Network for CSF

OIE Reference Laboratories

Canada, Japan, Poland,  
Germany, United Kingdom

Community Reference Laboratory  
(CRL) in Hannover, Germany

Coordinates also participation  
in global networks



National Reference Laboratories  
NRL (one for almost each country)

Contracts with CRL or other  
NRLs are possible



Regional Laboratories  
within the Member State

Only in some Member States

# Duties of the CRL

- Coordination of diagnostic methods including the organization of inter-laboratory comparison tests, design and validation of new techniques
- Provision of training in laboratory diagnosis with a view to harmonizing diagnostic techniques
- Having trained personnel available for emergency situations occurring within the Community
- Performance and coordination of research activities towards an improved control of CSF



# Duties cont'd

- Collection of CSFV isolates (> 900 isolates from all over the world)
- Maintenance of a CSF database with a module for automatic genetic typing
- Production and distribution of reagents (virus strains, reference sera, monoclonal antibodies)
- Organisation of Annual Meetings (NSFLs)
- Participation in EU Commission missions
- Advise EU Commission in questions related to CSF





# Duties of NRLs

- NRLs have to ensure that in each Member State CSF diagnosis is carried out in accordance with the (EU) diagnostic manual
- To this end they may make special agreements with the Community reference laboratory or with other national laboratories
- NRLs are responsible for coordinating the standards and diagnostic methods in each CSF diagnostic laboratory within the Member State

# Duties cont'd

- Provision of diagnostic reagents to individual laboratories
- Control the quality of all diagnostic reagents used in that Member State
- Performance of comparative tests
- Collection of CSF virus isolates from cases and outbreaks confirmed in the Member State
- Most NRLs participate in research projects and develop and validate diagnostic tests that can be later on transferred to regional laboratories

# Regional Laboratories

- Units performing routine diagnostic tests  
→ First line of diagnostic!
- Either all tests or special combinations
- Methodology transferred from NRL
- Often high sample throughput
- Confirmation normally done at NRL
- Are to participate in ringtrials organized by NRLs

# Conclusions

- For reliable diagnosis of major animal diseases, a network of laboratories is needed
- Experiences show that a clear hierarchy facilitates cooperation
- Duties and tasks have to be defined on different levels
- Communication and cooperation are of paramount importance

A photograph of a wild boar standing in a muddy, wet area. The boar has thick, brown, coarse fur and is looking towards the right. The ground is muddy with some water puddles and scattered yellow corn kernels. The text "Thanks for your attention!" is overlaid in the center of the image in a bold, black, sans-serif font.

**Thanks for your attention!**