Laboratory Twinning to improve disease security world wide

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Possible origins of animal disease outbreaks

- Natural disease events
- Deliberate release (bioterrorism)
- Breaches in laboratory bio-containment
- New and emerging diseases

“Disease detection and control for a natural, deliberate or accidental release of animal pathogen or emerging pathogen is virtually the same”
CURRENT NETWORK OF EXPERTISE

A network supporting disease prevention, surveillance, detection, and control world wide
Mandate of an OIE Reference Laboratory (disease based)

• Centre of expertise and standardisation

• Provide technical advice, diagnostic services, and training

• Report positive findings to OIE

• Develop new diagnostic tests

• Publish and disseminate useful information

• Place expert consultants at the disposal of OIE
Mandate of an OIE Collaborating Centre
(competence based)

- Centre of research, expertise, standardisation and dissemination of techniques
- Provide technical advice and training
- Develop new techniques and procedures
- Publish and disseminate useful information
- Place expert consultants at the disposal of OIE
THE CONCEPT

Sustainable enhancement of capacity and expertise by supporting a link between an OIE Reference Laboratory or Collaborating Centre (parent) and a national laboratory (candidate)
Aims and objectives of twinning - expertise

• To build scientific communities and improve compliance with OIE standards (surveillance and control)

• Improved access to high quality diagnostics and technical assistance for more OIE Members

• Eventually for some Candidates to apply for ‘reference’ status

• To help countries to enter scientific debate on an equal footing with others
Aims and objectives of twinning - networking

• Extend the OIE network of expertise to provide better global geographical coverage for priority diseases in priority areas

• To form long and lasting links between the institutes

• Strengthen global disease surveillance networks

• To strengthen national, regional and international scientific networks

• Create collaborative research opportunities, improve sharing, and advance science
Scope

- Project length is 1-3 years
- For OIE listed diseases or topics
- All include essential generic topics such as bioethics, biosafety, biosecurity, and quality assurance
- Ultimate aim to reach OIE reference status
- Funding to support the link, but not to buy equipment or pay salaries
Steps after twinning

• Engaging with the international scientific community
• Joining disease networks
• Joint research opportunities
• Applying for OIE Reference Laboratory status
IMPROVING DISEASE SECURITY WORLDWIDE
Outputs from twinning the twinning programme

• Improved access for OIE Members to rapid and accurate detection and characterisation of pathogens

• Improved biosafety, biosecurity, and bioethics

• Stronger scientific networks

• Stronger global disease surveillance

• **Improved capability to prevent, detect, and respond to disease events whatever the source**
An example

Germany (FLI)

with

Egypt (NLQP)

for avian influenza and Newcastle disease
Overcoming prejudices and clichés
Overcoming prejudices and clichés
Beyond sandals and white socks:
A professional mediator

Prof. Hafez,
Director, Poultry Clinics
Free University, Berlin

Christian
Timm
Tips for success….

• Have a carefully planned kick-off meeting

• Set five clearly defined goals of mutual interest

• On this list build a working program which is already filled with data and names (of trainees)

• If possible try to include a “facilitator”, ideally a scientist from the same country with experience in the cultures of both labs

• Be ready for surprises, both good and, well, “surprising” ones.
OIE Twinning: a valuable tool for regional development
Trevor Drew, Tony Fooks & Judy Stack
Veterinary Laboratories Agency, United Kingdom

What is “OIE Twinning”? The World Organisation for Animal Health (OIE) Reference Laboratories (RLs) and Collaborating Centres (CCs) provide a global service, providing member states with expertise and diagnostic capacity concerning diseases important to trade of livestock and traded commodities. OIE aims to enhance regional representation and development by establishing new RLs/CCs in the world.

Rabies
Rabies is a severe disease of dogs in China, which also affects wildlife and humans. The disease is also present in other countries in Asia and Africa. The disease is caused by a virus that infects the central nervous system, leading to neurological symptoms and death.

Brucellosis
We are currently working closely with the World Organisation for Animal Health (OIE) Reference Laboratory and Collaborating Centre (PCR) for Brucellosis in France to improve our diagnostic capacity and to develop new techniques.

Priority areas for CSF include:
- Improved diagnosis
- Vaccine manufacture, quality and efficacy
- Molecular epidemiology
- Pathogenesis of diverse strains of virus

Future Activities
We are currently working on developing new diagnostic tests for Brucellosis, including PCR and serological tests. We are also working on developing vaccines against Brucellosis.}

OIE Twinning Project 2008 for Avian Influenza

For more information, please visit the OIE website.