OIE RL for Rabies in China: Activities and Challenges

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Changchun Vet Res Institute (CVRI)

- Established in 1949 and located in Changchun, the capital city of Jilin Province.
- Focuses on preventive vet med and sci
Diagnostic Laboratory for Rabies and Wildlife Associated Zoonoses

537 M² in total
Established in 2005
OIE RL for Rabies in 2012
Diagnostic Laboratory for Rabies and Wildlife Associated Zoonoses

- PCR Cyclers
- Automatic RNA extraction
- Fluorescence microscope
- Ultra-centrifuge
- Cell culture
Technical capacity

1. Ag detection

2. NA detection

3. Ab detection
Technical capacity

Passed ILCT organized by ANSES, France
Main Activities

- Diagnosis of animal rabies cases
- Rapid response to the outbreak
- Epidemiology and surveillance
- Evaluation of rabies immunity for pet travel scheme
- Technical training and advice
- Scientific research
Main Activities

• Diagnosis, epidemiology and surveillance of rabies

Animal rabies cases

RABV genotypes in China

- Asian 1
- Asian 2
- Arctic-related
- Cosmopolitan
Main Activities

- Rapid response to the outbreak

Camel rabies

Sheep rabies
Main Activities

• Evaluation of rabies immunity

>1000 dogs and cats tested in 2016.
Main Activities

- Technical training

SEA countires 2014

Indonesia in 2016

National training 2013

Nepal in 2012
Main Activities

- **R & D:**
  1. **Direct rabies immunohistochemistry test (dRIT)**

     - Biotinylated mAb
     - FAT
     - dRIT+
     - dRIT-

  ![Biotinylated mAb](image)
  ![FAT](image)
  ![dRIT+](image)
  ![dRIT-](image)

  ![Diagram](image)

  **2. Oligo DNA microarray**

  ![Diagram](image)
Main Activities

- OIE *ad hoc* meeting on rabies (2011 and 2012)
- OIE/FAO mission to Vietnam on rabies (2013)
- OIE consultance on Oral vaccination against dog rabies (2016)
Publications


• Yin, Wenwu et al., Challenges and needs for China to eliminate rabies. *Infect Dis Poverty*. 2013, 2(1):23.


Key Challenges

- In sample importation to provide diagnostic service to OIE Member Countries
- In technical training to Member Countries
- In laboratory network with other Reference Centers
Challenge 1

In sample importation

• The official permit to import biosamples is given on case-by-case basis according to GAQSIQ’s regulations.
• All importing samples must pay tariffs (even they are free) according to GAC’s regulations.
• Therefore, procedures are time-consuming and costly for us to receive samples outside China, eventually prevents us from providing diagnostic service to OIE Member Countries.
Challenge 2

In technical training

- Technical training is very important to help member countries build up its laboratory capacity.
- Demands and requests increasing, but no program and funding in place.

Nepal in 2012
Challenge 3

The laboratory network is weak to facilitate the sharing and exchanging of knowledge and expertise among OIE RLs.
Suggestions

• For challenge 1, we continue to solicit MoA to coordinate with GAQSIQ and GAC.
• For challenge 2, I would suggest to establish OIE fund to specially support technical training in OIE RLs for personnels of the Member Countries
• For challenge 3, I would suggest to establish annual meeting mechanism for Regional OIE RLs, which can be organized in turn in the country of each RL under the support of OIE and/or host country.
Thank you for your listening and comments!