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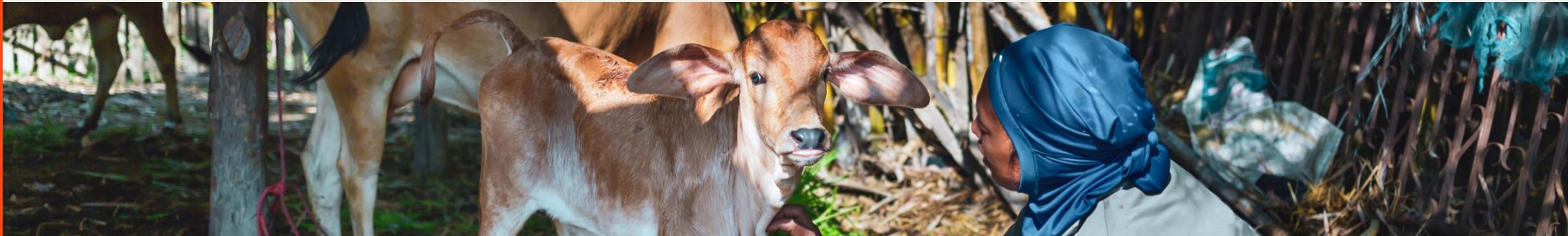
中华人民共和国农业农村部
Ministry of Agriculture and Rural Affairs of the People's Republic of China

WOAH Laboratory Twinning on Brucellosis and benefits for Asia Pacific Region

Name of presenter: Xiaojie Zhu

Title of presenter:

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China Institute of Veterinary Drug Control**





Outlines

1. Introduction of WOA H Brucellosis twinning project

2. First visit to Pakistan

3. First training session in China

4. Key outcomes

5. Future Recommendations

6. Challenges



01

Introduction of WOAHA Brucellosis twinning project



1.1 Introduction and Objects



Introduction

- Start time: March, 2022
- Parent Institute: WOAHL brucellosis RL, IVDC, China
- Candidate institute: National Veterinary Lab (NVL), Pakistan

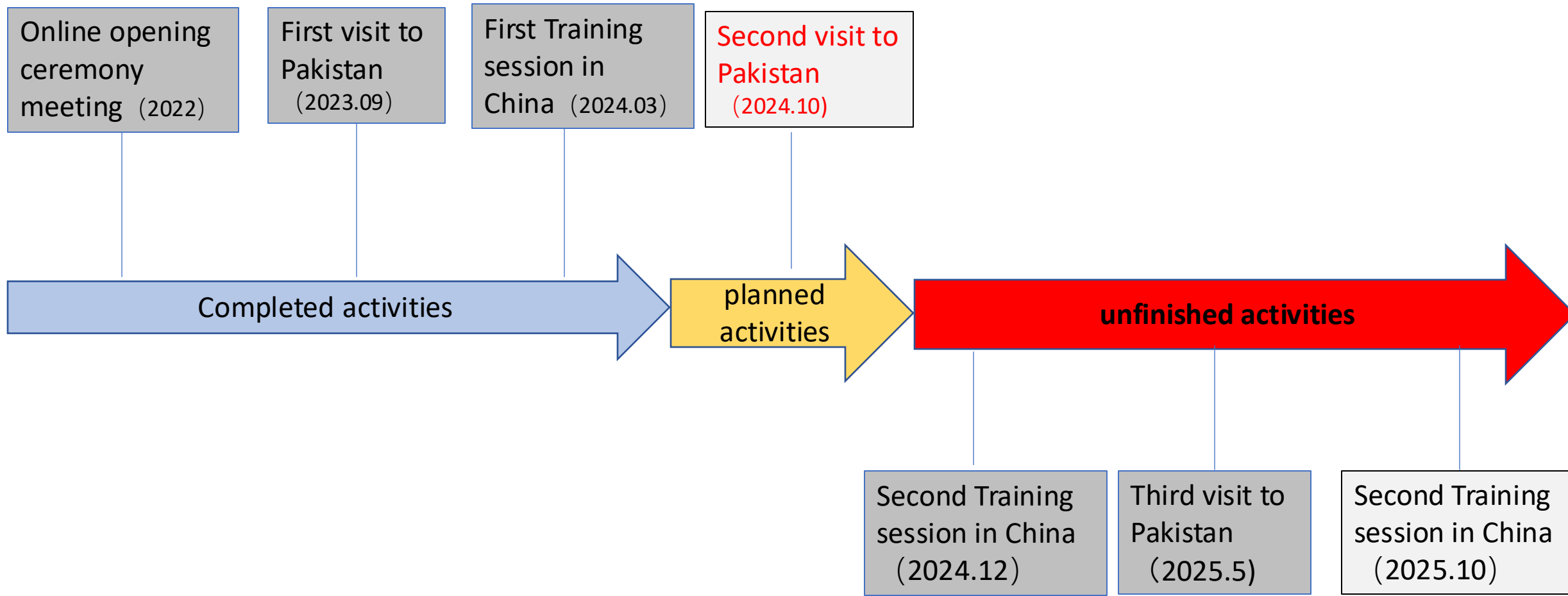
Objects

- 1. Develop effective cooperation between the parent laboratory and the candidate laboratory for sharing of resources and data
- Transfer of Chinese technology/ experience of prevention and control of Brucellosis in dairy animals to be piloted at selected farms in Pakistan.
Development of a national Brucellosis surveillance programme.
- Enhancing the Research and Development for diagnosis and vaccine quality at NVL, Pakistan



1.2 Timeline

5





02

First visit to Pakistan (2023.09)



2.1 Introduction



➤ On September 17-29, 2023, Professor Junping Li , Professor Nan Wang, and Dr. Zhu Xiaojie visited NVL.

➤ A workshop to address the diagnosis of Brucellosis, titled "Technology of Serological Detection of Brucellosis", was organized in NVL

➤ Enhance the capacity, technical prowess, and scientific expertise of the NVL staff through a combination of hands-on training and expert guidance.



2.2 Key activities

8

1. Welcome Ceremony



- ### 2. Workshop on Serological Diagnostic Methods for Brucellosis (hands-on training):
- the Rose Bengal Plate Test, Milk Ring Test, Indirect ELISA, Competitive ELISA, and Micro and Macro Serum Agglutination Test.



3. Investigation on Cattle and Goat Farms

4. Closing Ceremony

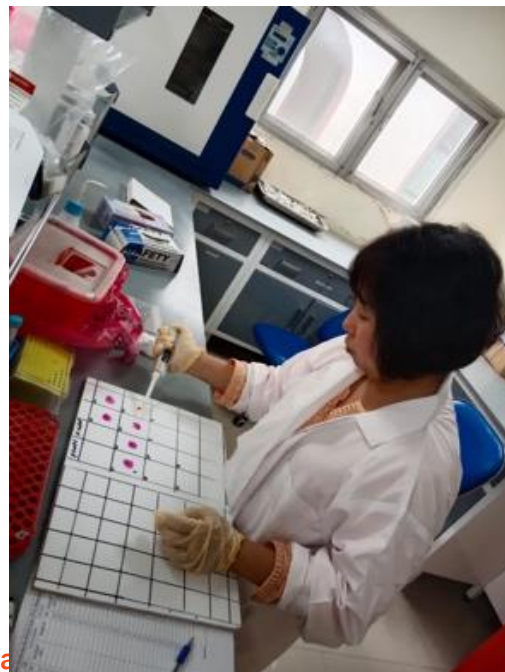
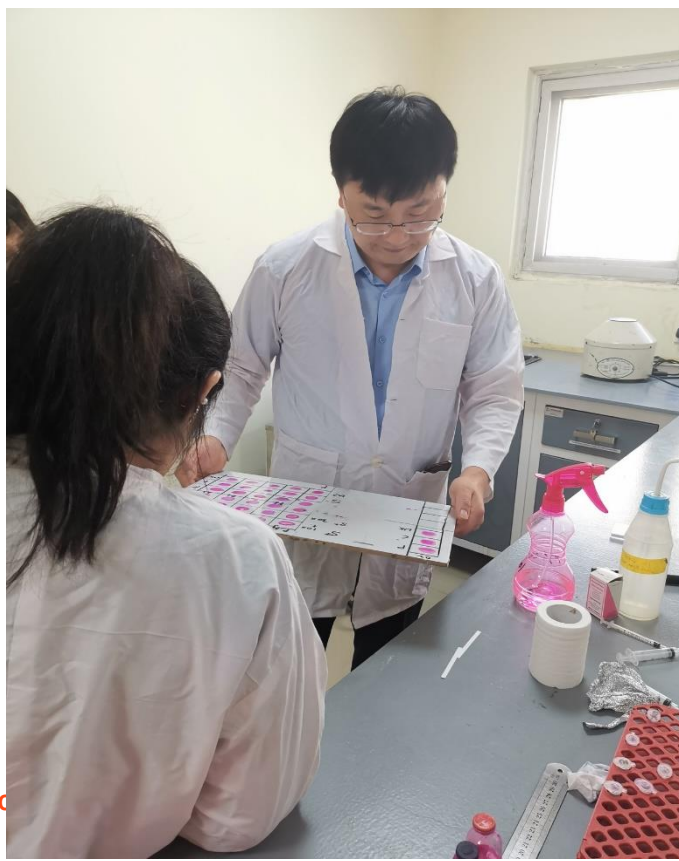
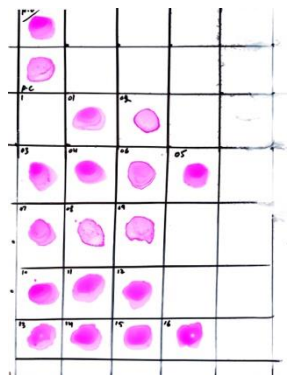




2.2 Key activities-workshop

01

Rose Bengal Plate Test





2.2 Key activities-workshop



02

**cELISA and
iELISA**



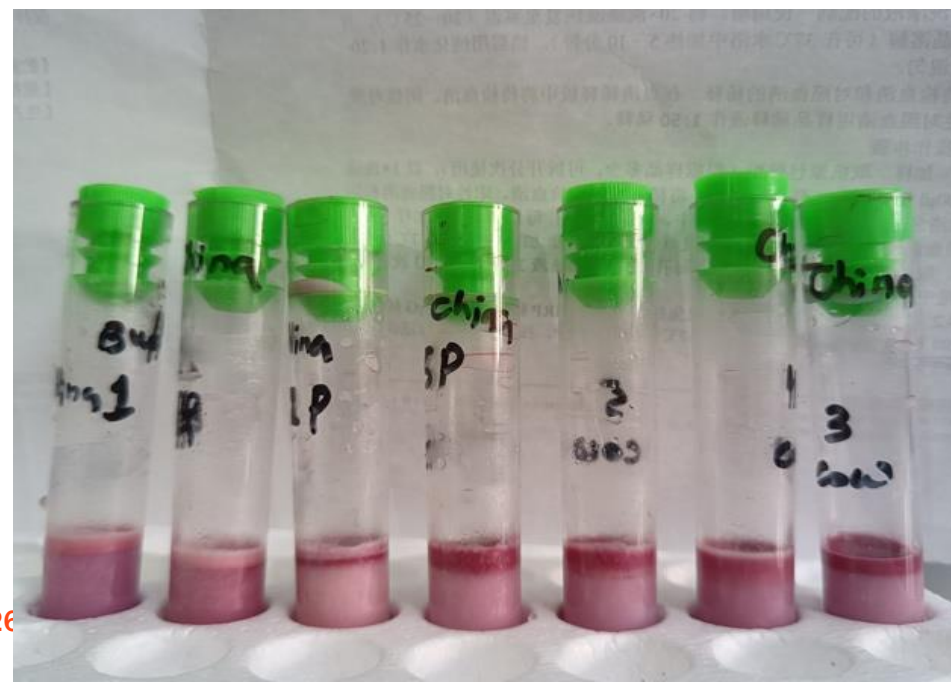


2.2 Key activities-workshop

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03

Milk Ring Test



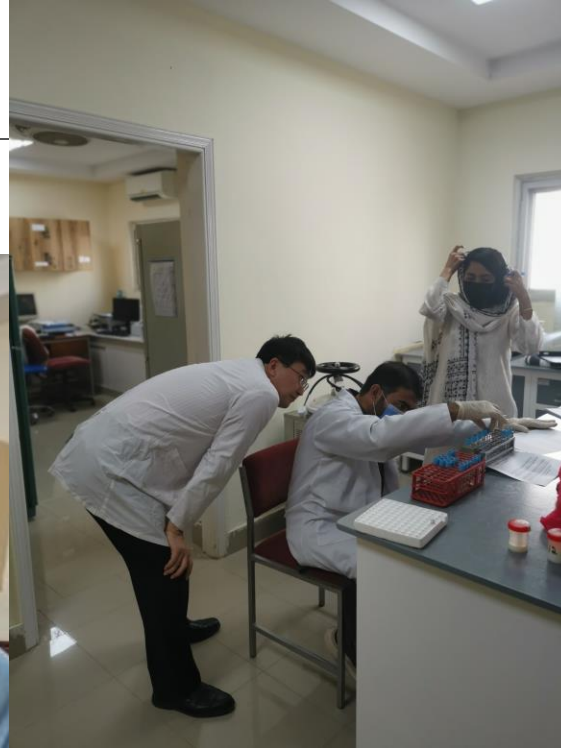


2.2 Key activities-workshop

12

04

Micro and Macro Serum Agglutination Test





2.2 Key activities-Field work



To gain insights into the brucellosis situation, we conducted an investigation on a dairy farm and a goat farm in Islamabad.



01





2.2 Key activities-Field work



02

A focus group discussion was held with farmers to explore the prevalence of brucellosis in their livestock, the occurrence of abortions, production and management practices, as well as their knowledge, attitude, and practices pertaining to brucellosis.





2.2 Key activities-Field work

15



03

Collect blood samples and utilize our training diagnostic methods to analyze all the samples.





2.2 Key activities-Field work



04

We collected blood samples from all dairy farm workers and screened them using RBT. Two workers were tested positive for Brucellosis





2.2 Key activities-closing ceremony

Professor Junping Li and Dr. Muhammad Akram jointly awarded certificates to the participants from NVL in Pakistan.





03

First Training session in China (2024.03)



3.1 Introduction



- From February 26 to March 10, 2024, Dr. Abubakar, Dr. Shumaila, and Dr. Faisal from the Pakistan visited IVDC.

- During this visit, we conducted training sessions centered on "Brucellosis serology and pathogen detection techniques, vaccine assessment, and disinfectant evaluation."

- **Technology of pathogen detection of *Brucella*.**
- **Technology of disinfection of farms and environments where *Brucella* likely exists.**
- **Technology of evaluation of vaccines against *Brucella***



3.2 Key activities-vaccine evaluation and disinfectant assessment

20





3.2 Key activities-workshop

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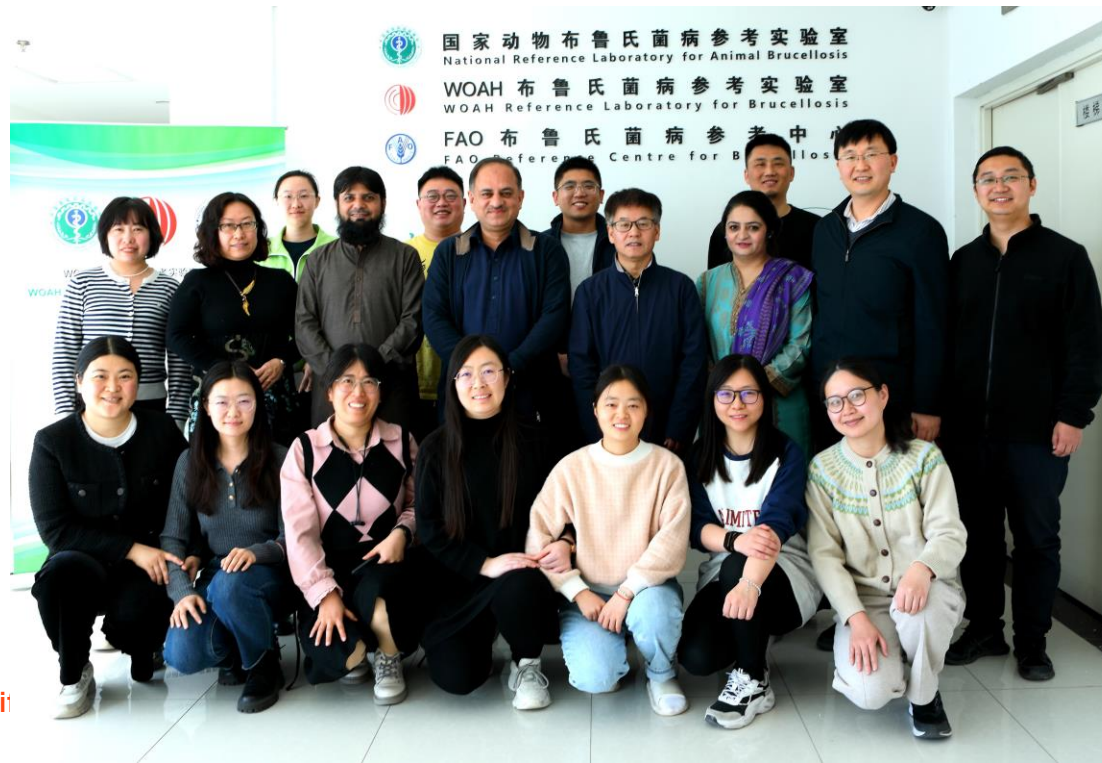
3.2 Key activities-workshop





3.2 Key activities-closing ceremony

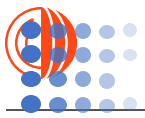
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04

Key outcomes



4.1 Assist NVL in creating SOPs



In our discussion with NVL laboratory personnel, it came to light that they lack a Standard Operating Procedure (SOP) for serological diagnosis of brucellosis.

We helped them create the appropriate SOP to ensure the scientific rigor, standardization, and reliability of this diagnostic procedure.



4.2 Assist NVL in creating SOPs

26

- Enhanced understanding of brucellosis: The workshop provided comprehensive knowledge of serological diagnostic methods for brucellosis to the NVL staff in Pakistan.
- Through hands-on training and expert guidance, the laboratory staff at NVL have acquired improved technical skills in conducting serological tests for brucellosis.
- Enhance the laboratory's capacity to handle and analyze samples effectively.





4.3 Improved collaboration



The visit and workshop facilitated collaboration and knowledge exchange between IVDC and NVL. The establishment of a collaborative network will promote future joint research projects, knowledge sharing, and capacity building initiatives.



4.3 Positive attitude and enthusiasm for learning



01

Despite material shortages, the participants displayed remarkable engagement and interest throughout the training. It was their first exposure to a comprehensive diagnostic approach for brucellosis, and they expressed appreciation for the systematic training they received. They actively participated in practical sessions and demonstrated a strong desire to enhance their diagnostic capabilities.



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连接中...

20:56 ✓

It's ok, no problem at all. 21:10

Thank you 😊 21:36 ✓

9月28日 周四

Hello!

I apologise for not being there at the closing ceremony, as my residence is a bit far from NVL....while I really wanted to receive the certificate from Prof. Junping Li . However, it was a lovely meeting you all, and I have learnt a lot 😊 . I hope you all have had a great time in Pakistan.

20:46

Hi, Nebeela. That's fine, We are happy practice diagnostic methods with all of you. We are looking forward to meeting again. Have a great long weekend.

21:49 ✓



05

Future Recommendations



5.1 Visit Plan for the Next Year



1

From October 13th to 18th, 2024, our visiting team will make a second visit to the National Veterinary Laboratory in Pakistan.

2

This visit will involve epidemiological investigations and research, as well as assisting the Pakistani side in vaccine evaluations.



5.2 Future Projects and Capacity Building



The participants expressed their strong desire for ongoing support and future projects aimed at improving their diagnostic abilities.

They emphasized the importance of additional training programs and workshops to enhance their understanding of brucellosis diagnosis and related techniques.





06

Challenges



- ✓ Significant difficulties have been encountered in transporting the necessary testing reagents.





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Thank you!

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