







Updates Activity

Regional Reference Laboratory for FMD in South East Asia

(Pakchong)
THAILAND

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Acting Director of Regional Reference Laboratory for FMD in South East Asia(RRLFMD)

Progress of RRLFMD-Pakchong Activity

Main Activity

- FMD Diagnosis; 2024/ Serotype O/Ind2001
- Reagent Preparation; Rb, GP, Inac. Ag, Mab





Improvement Activity

- Human Resources; Training, KM, ...
- Building Facility: DTRA; MORU
- Quality Assurance system:
 - ISO 17025:2017 maintain and Expanding new one
 - ISO 17043 (On going)



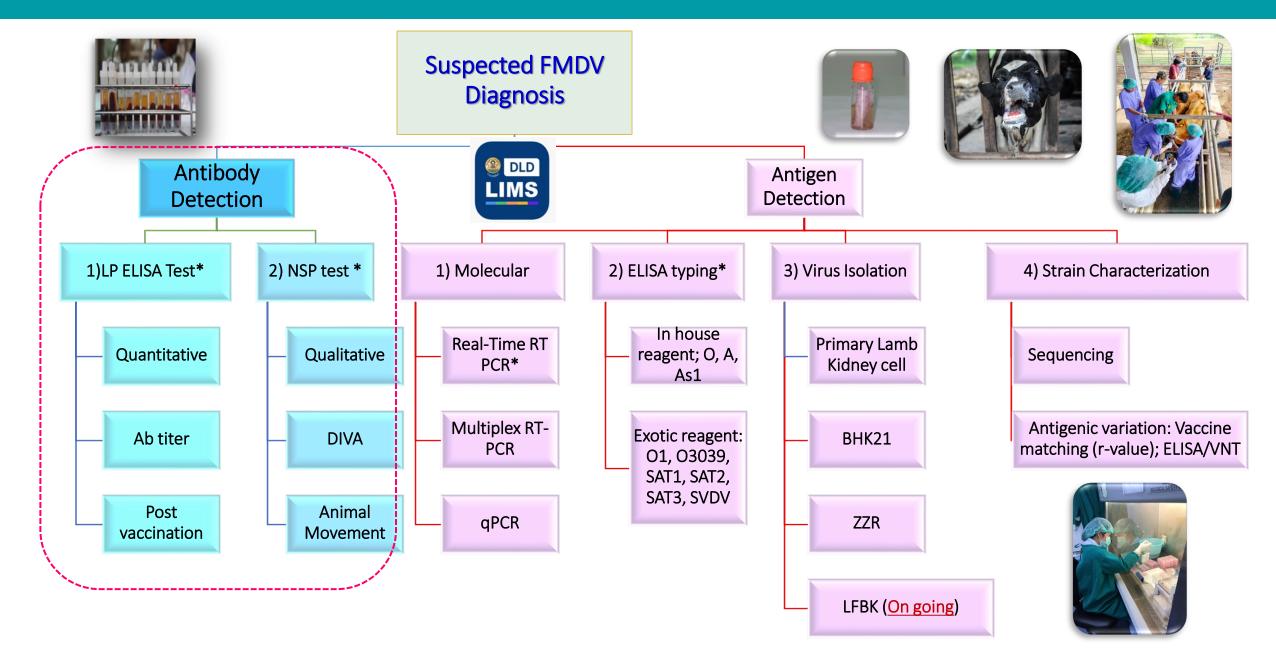
Collaboration

- Research collaboration
 - ACDP, AUSTRALIA
 - SATREPS, JICA, JAPAN
 - KODIARA Lab; NIAH, JAPAN
 - University
- Technical support
 - WOAH
 - WRL; UK
 - ACDP, AUSTRALIA
 - IAEA
- Other...



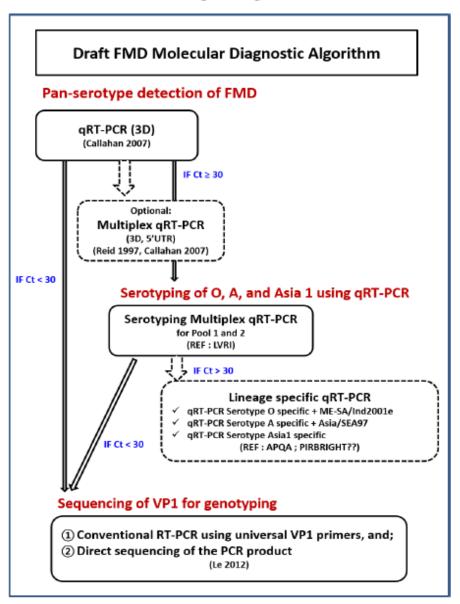


Main Activity: FMD Diagnosis

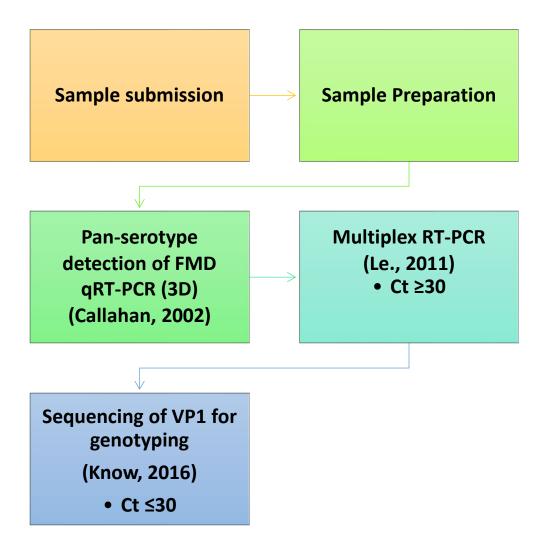


Main Activity: FMD Diagnosis (Cont.)

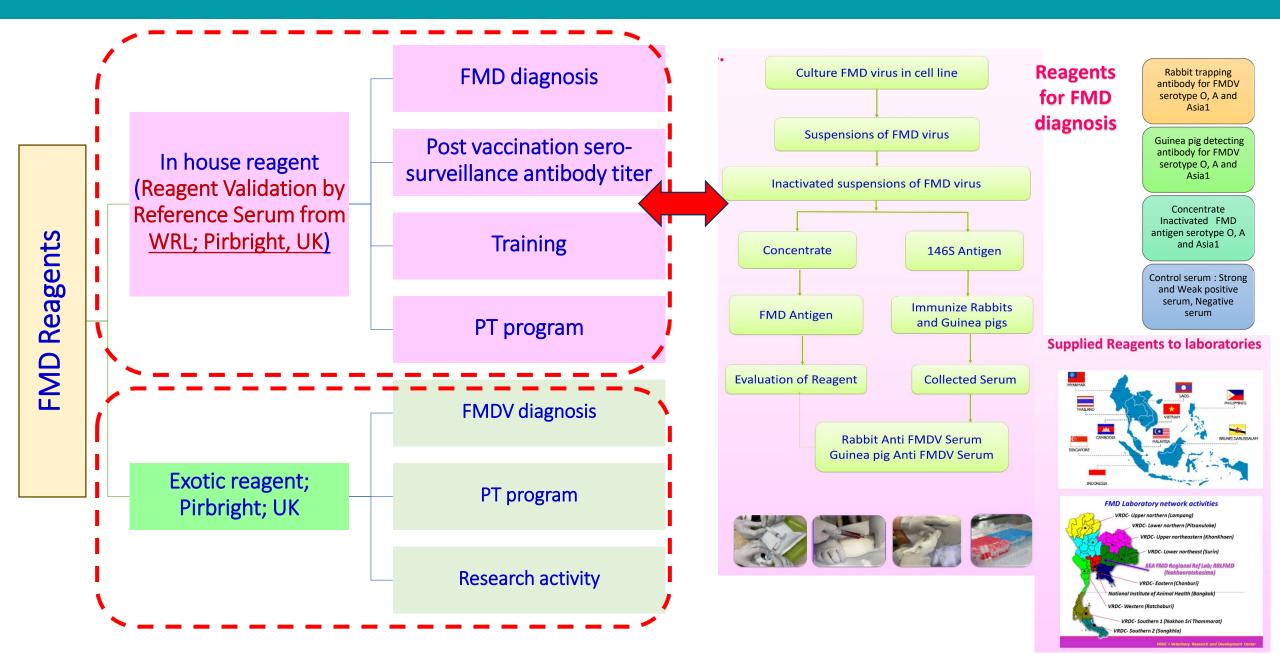
Annex 1. Draft MFDV Molecular Diagnostic Algorithm



RRLFMD-Pakchong

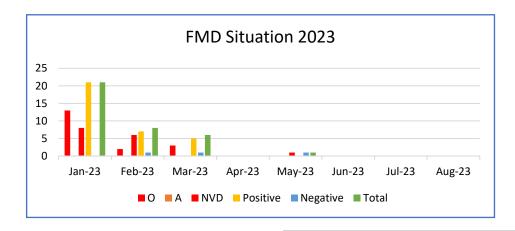


Main Activity: Reagent preparation



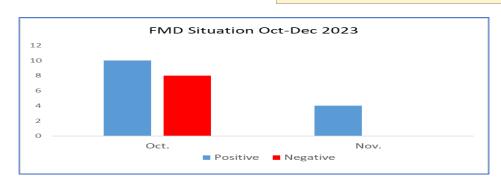
FMD situation in 2023 - 2024

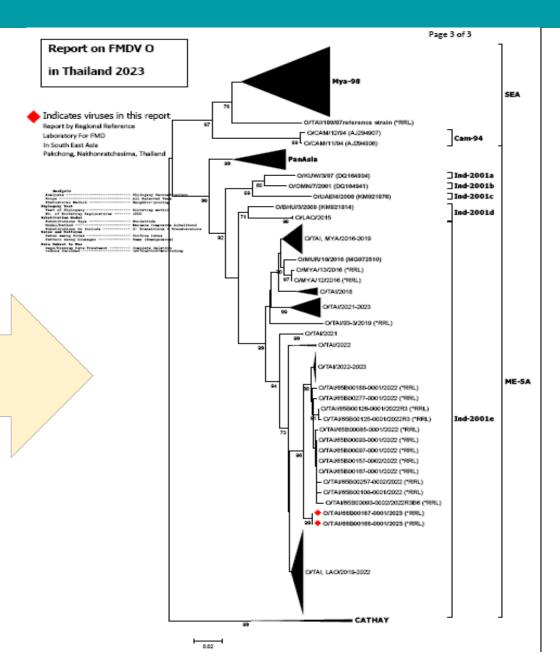
Phylogenetic Tree: 2023



Strain: O/Ind-2001e

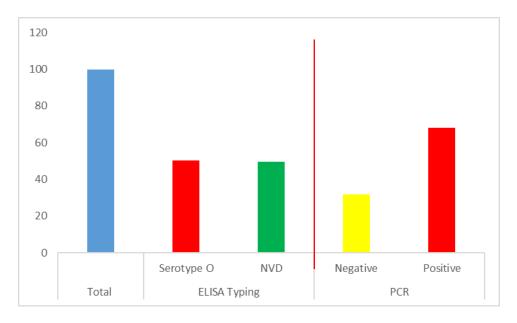
Topotype: ME-SA





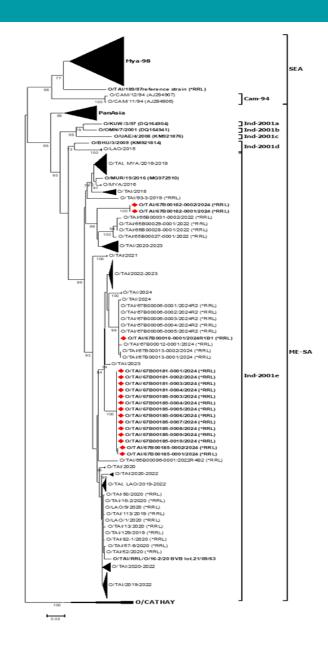
FMD situation in 2023 - 2024

Phylogenetic Tree: 2024



Strain: O/Ind-2001e

Topotype: ME-SA



Improvement Activity



Human Resources



Building Facility



Quality Assurance system

Improvement Activity: Human Resources







Regularly Training

- ✓ Online and Onsite
- ✓ Workshop
- ✓ Master and PhD Study

Support activity

- ✓ FMDV Diagnosis
 - ✓ Workshop
 - ✓ Training
 - ✓ Refresh training

Evaluation activity

- ✓ Experts
 Team(Pirbrigh
 t;UK /ACDP;
 AUS)/WOAHSRR
- ✓ PVS Activity





















Improvement Activity: Building Facility



Training Building Center;
Start Working



BSL3 facility: Renovating by DTRA and MORU



Follow up & Evaluation by Experts and Biosafety Team



New BSL3 Will be Finish on May 2025





Improvement Activity: Quality Assurance system

Proficiency testing (PT)

- Participating PT Program organized by WRL; UK
 - Support by FAO/WOAH/WRL
- PT Provider
 - LP ELISA, NSP, ELISA Typing (Inac.), and Real Time PCR (Inac.)
 - National laboratory
 - Member laboratory country
 - Support by WOAH SRR

2024 FMD PT activity

Pirbright

Monday, 3rd July 2023

Dear Colleagu

Foot-and-Mouth Disease (FMD) Proficiency Testing Scheme 2023

You are invited to join the Foot-and-Mouth Disease (FMD) Proficiency Testing Scheme for 2023 (Phase XXXV) organised by WRLFMD. The aim of this study is to assess laboratory diagnostic performance and enable harmonisation of testing between national and international FMD reference laboratories.

For your reference laboratory, the sample panels and their shipping costs will be funded by the EuFMD, therefore there will be no cost to you. As funders of the scheme, results and feedback will be shared with EuFMD at the end of the study.

This year two panels (virology (Panel 1) and serology (Panel 2)] of materials will be available for distribution in autumn 2023. These panels will focus on outbreak scenarios (Panel 1) and post surveillance serology (Panel 2).

The attached 'description of panels' gives full details of these specimens and explains the soning system to be used. Scoring accommodates the results from individual diagnostic tests (Diagnostic Performance) and the range of tests that are used to analyse the samples (Diagnostic Capability). Laboratories will receive individual feedback on results, including observations and non-conformities. Laboratories with non-conformities will be invited to contact us to discuss a course of action to rectify test decliencies.

Please transfer the attached Letter of Undertaking (LOU) to your official headed notepaper. Indicate which pane(s) of materials you wish to receive (please strike out those which do not apply), sign and date letter and return it with any import permits required by your government to <u>transfers@portinght.acm</u>.

Please note: Panel 1 can contain either "infectious" or "non-infectious" material. Laboratories tha cannot receive materials containing infectious viruses will receive the non-infectious materials.

As the licensing process for exporting samples is lengthy, please reply to this invitation and attach the contact spreadsheet (with at least two contacts) by 31st July 2023. If we receive your reply after this date, we may not be able to include your laboratory in the scheme this vest.

Very best regards,

C. lu

Dr. Donald King and Dr. Anna Ludi FAO World Reference Laboratory for FMD

Invitation & Registration

Sep 2024

Shipment of Sample Oct 2024

Sample analysis **Dec 2024**

Feedback report

Jan 2025

Improvement Activity: Quality Assurance system (Cont.)

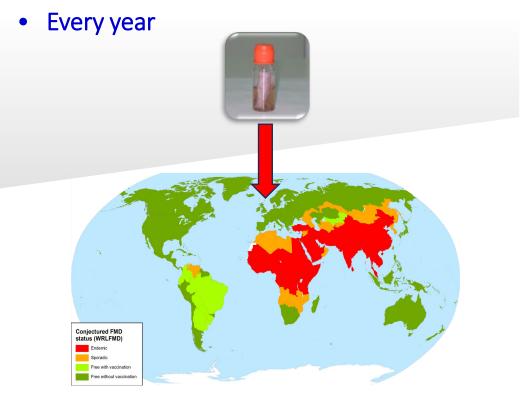
ISO 17025:2017 Std.

- ✓ Ab-NSP Test
- ✓ Ab-LP ELISA
- ✓ Ag- ELISA Typing
- ✓ Real Time RT-PCR (Approve process)





Confirmation FMD diagnostic and In house reagent at WRL, UK



Collaboration

WOAH

Support PT program (sample submission)

RRL-SEA collaboration and support activity

WRL: UK

Participating PT program

FMD diagnosis for confirmation; ISO17025:2017

Technical
Support; Training
and discussion

ACDP: AUS

Real Time PCR
specific
serotype:SSRT9PCR and
Vaccine
Matching
Study > Suitable
in SEA

JAPAN

SATREPS project-> Rapid diagnosis study; JICA

KODIARA Lab; NIAH, JAPAN: → Carrier study→ Free zone 2 Information support

Member countries;

FMD PT Provider

Diagnosis confirmation,

Presentation and discussion

Training center

TWINNING PROJECT:

BIOSAFETY and BIOSECURITY (Department of Medical Sciences& RPHL)

ACDP and US University Twin team

IAEA

and maintenance training (At RRLFMD-Thailand; Oct. 2024); By IAEA

to organize the

training for

member

country

BSC calibration













Main objectives for 2025

Objective

- ✓ FMDV Diagnosis work, and Preparing to emerging diseases
- ✓ Implementing to the new Biosafety Level 3 (BSL-3) laboratory for FMD diagnosis : Sample preparation, Virus Isolation, ELISA Typing, Molecular technique, and Research activity
- ✓ PT Participating with WRL
- ✓ ISO 17043 accreditation: FMD PT Provider; preparing to accredited
- ✓ Focus on the bioinformatics analysis and molecular diagnosis for refresh training; Real time PCR; ISO17025:2017; Maintain and Implementing to be ISO standard
- ✓ Training center collaboration for member laboratory/ Interested lab;
 - FMD Diagnosis Training Center Collaboration
 - Biosafety Training Center Collaboration



Thank You For Your Attention