

# Sensitive and specific detection of pathogens

## Work package 4.1 - real-time PCR Diagnostics

### Important deliverables of the last year

#### 1. A list of existing real-time PCR methods for selected epizootic diseases (e.g. FMDV, BTV, AIV, NDV, CSFV)

**How:** Review article in cooperation of the core group members: „A review of real-time RT-PCR technology in veterinary virology: sensitive and specific detection of FMDV, AIV, CSFV, NDV and BT“

**Progress:** final draft prepared

#### ■ First ring trial results for selected viruses (e.g. FMDV or CSFV or AIV)

**How:** Core group member FLI organized a real-time RT-PCR ring trial for CSFV detection with 10 participants

**Progress:** performed in summer 2007, manuscript in preparation

#### ■ A 1st work shop on real-time PCR methods

**How:** Real-time PCR workshop with practical work, round table discussion and presentations by the participants

**Progress:** 6./7. September 2007 at the Friedrich-Loeffler-Institut, Germany

#### ■ First collection of validated (e.g. copy number) positive or internal control DNAs/RNAs

**How:** Collection of "EPIZONE REFERENCE RNA/DNA" based on full length viruses

**Progress:** -Pestivirus RNA including CSFV, BVDV, BVD and atypical pestiviruses with defined copy numbers are ready to use and will be distributed

-RNA from all serotypes of inactivated FMDV are in preparation

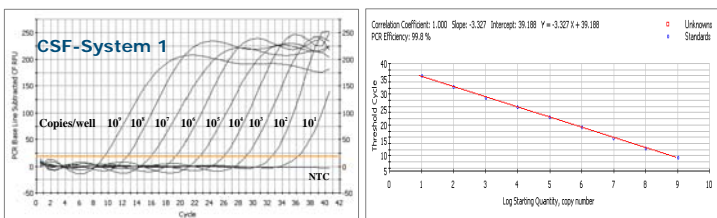


Participants of the real-time PCR workshop (September 2007 at the FLI)

### Important deliverables for the next years

- Selection of further important pathogens
  - e.g. AHSV, EHDV, fish viruses, ASFV, Rift Valley Fever Virus, West Nile Fever Virus
- Definition of published real-time PCR assays useful for the genome detection of the selected pathogens
- Harmonization, standardization and identification of real-time PCR assays with ring trials
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### An example for a validated real-time RT-PCR: CSF system 1 (Hoffmann et al. 2005)



### Participants of the work package 4.1

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