



National Research Centre for
Protozoan Diseases, Obihiro, Japan
(The Parent Laboratory)



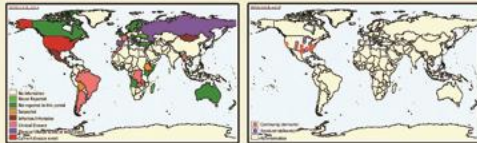
TWINNING LABORATORIES

Project on Equine Piroplasmosis



National Research Centre on Equines
Hisar, India
(The Candidate Laboratory)

Capacity Building



World epidemiology

Outbreaks in 2011



Working in
state-of-the-art
Laboratory at NRCPD,
Japan



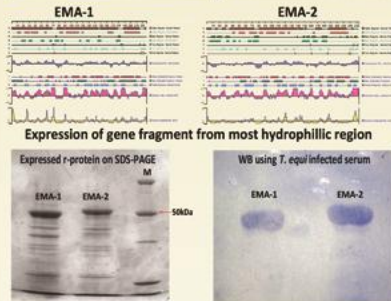
Discussion on Project progress
with Prof. I. Igarashi
(NRCPD, OIE-Expert)
and Dr. S. Ayyappan, DG (ICAR)
& Secretary (DARE)
Dr KML Pathak, DDG (AS) &
Dr Gaya Prasad, ADG (AH)



Working with OIE-Expert
at an Equine Health Camp
organised at Humangarh
and collected samples

Research Activities

Recombinant antigen based ELISA



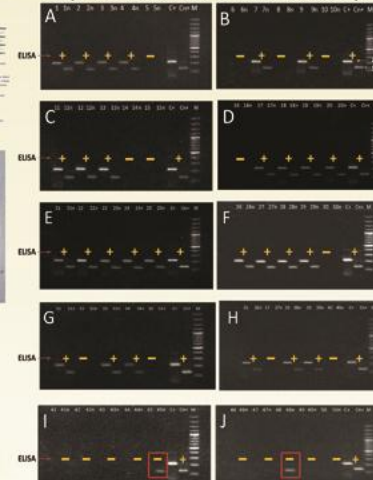
- ELISA based on these r-proteins optimized.
- Validation vis-à-vis OIE approved CI ELISA in progress.
- Immunokinetics of specific antibodies on serum samples collected from *T. equi* experimentally infected animals.
- Unknown serum samples from field collected.

Nested-PCR



Original primers designed for PCR and
nested-PCR

Comparison of nested-PCR with r-ELISA on field samples



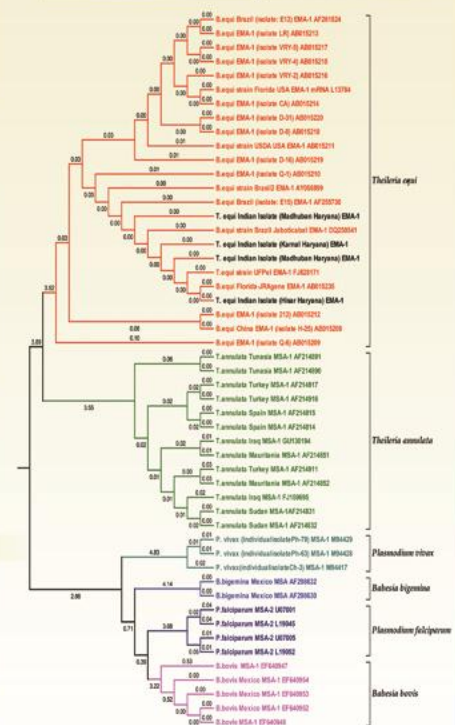
- Nested-PCR more sensitive than PCR and r-ELISA

Immuno-chromatographic test (ICT)



Developed & tested ICT strips on
field samples

Genomic Variability



- Cloned & sequenced EMA-1 gene from Indian strains of *T. equi*
- Developed phylogenetic tree with other *Theileria*, *Babesia* & *Plasmodium* sp.