

Lateral flow assay for diagnosis of equinepiroplasmosis

Title of technology	Lateral flow assay for detection of antibodies to <i>Trypanosoma evansi</i>
Preamble	
<p>Equine piroplasmosis is an acute, sub-acute or chronic tick-borne disease of equines, caused by an intra-erythrocytichaemo-protozoa <i>Theileriaequi</i> or <i>Babesia caballi</i>. Significant segment of the Indian equine population (~35%) is latently infected and diagnosis of these animals is of more relevance to prevent spread of the parasitic infection to naïve animals. In an effort to provide a farmer friendly field test kit, the Centre has successfully developed lateral flow assay (LFA) for diagnosis of <i>T. equi</i> infection.</p>	
Salient features	
<ul style="list-style-type: none"> • The kit is based on a recombinant <i>T. equi</i> merozoite surface antigen (EMA-2) conjugated with gold-nano particles. • LFA kit results were comparable with ELISA, cELISA (VMRD, USA format), MASP <i>in vitro</i> culture and PCR. • The diagnostic sensitivity (Dsn) and specificity (Dsp) of LFA vis-à-vis ELISA were 0.945 and 0.916, respectively, indicating its applicability on the field samples. 	
Stakeholders	
<ul style="list-style-type: none"> • Biopharmaceuticals • State Govt Veterinary Biologicals Production Units • Small Entrepreneurs • Equine farmers • Indigenous Horse Societies / Army/ Police Departments etc., 	
Economic benefits	
<p>LFA has many advantages as compared to ELISA, such as no equipment or trained personnel needed and visually readable results obtained within 10 minutes.</p>	

