A CATALOG OF TRANSCRIPTS FROM SALIVARY GLANDS OF THE CATTLE TICK, *Rhipichephalus* (Boophilus) *microplus*: CLONING OF cDNAs FOR IMMUNOSCREENING AND ANTIGEN DISCOVERY

Brandão[1], L.G; Maruyama, S.R.C[1]; Anderson, J. M.[2]; Valenzuela, J.G.[2]; Ribeiro, J.M.C[2]; Ferreira, B.R[1]; de Miranda Santos, I.K.F.[1].

[1]Departamento de Bioquímica e Imunologia, FMRP-USP, Ribeirão Preto-SP, Brazil; [2]NIAID-NIH, Rockville-MD, USA.

Saliva from ticks facilitates their access to the host's blood and counters immune and inflammatory responses elicited by their bites. The aim of this work is to identify genes from salivary glands of the cattle tick that code for useful secreted proteins for vaccination. cDNA libraries were made from salivary glands of feeding nymphs, male and female adults fed on cattle for 3-4 days. We generated 3487 ESTs, which were trimmed of primer and vector sequences, clusterized into 1644 contigs and compared with public databases such as NR, GO, KOG, P-fam, SMART, rRNA, MIT-PLA, and private ones containing sequences for Acari and ESTs of R. microplus and submitted in batch to the SignalP server. A signal peptide was present in 200 contigs, of which 31 are secreted only by nymphs and males, 8 are exclusive to nymphs and females, 4 expressed only by males and females and 14 are expressed in all stages. Many are similar to proteins that interact with host haemostatic and immune systems. The cDNAs of 45 secreted transcripts were cloned in the plasmidial vector TOPOTA VR2001 for immunoscreening for antigen discovery.

Supported by: CAPES, CNPq, FAPESP and Valleé SA.