CLONING OF *Babesia bigemina* AND *B. bovis* REPETITIVE DNA FOR SPECIES-SPECIFIC IDENTIFICATION OF THE PARASITES

PZ-53

Taque, J., Farias, N.A.R.*, Gonzales, J.C.* & Ozaki, L.S.

Departamento de Biotecnologia, Instituto de Biociências, Universidade Federal do Rio Grande do Sul, C.P. 15005, 91500, Porto Alegre, RS, Brazil; *Faculdade de Veterinária, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil.

Genomic libraries of *Babesia bigemina* and *B. bovis* were constructed with the *Escherichia coli* $EMBL_4$ phage. ^{32}P-labelled parasite genomic DNAs were used as probes to screen the libraries, in high stringency and short time hybridization conditions. Several recombinant clones gave strong signals with the probes. Six *B. bigemina* clones, giving the strongest signals, were selected and upon back-hybridization all showed to have homologous repetitive DNA sequences. The same procedures was performed with *B. bovis* clones, with similar results. The cloned sequences do not cross-hybridize with host DNA and are species-specific. The probes can be used as alternative or complementary tools for the identification of two species of bovine *Babesia*.

Supported by FINEP, CNPq and FAPERGS.

DISCOVERY OF A PUTATIVE 5.5 KBP DOUBLE-STRANDED RNA VIRUS PRESENT IN *Babesia bovis*

PZ-54

Johnston, R.C., Farias, N.A.R.*, Gonzales, J.C.*, Amako, K.** & Ozaki, L.S.

Departamento de Biotecnologia, Universidade Federal do Rio Grande do Sul, C.P. 15005, 91500, Porto Alegre, RS, Brazil, *Faculdade de Veterinária, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil, **Department of Bacteriology, School of Medicine, University of Kyushu, Fukuoka, Japan.

Babesia bovis is an intraerythrocytic protozoa that causes a severe bovine disease. Nucleic acids from two *B. bovis* isolates presented in agarose gel electrophoresis, besides genomic DNA, a molecule of approximately 5.5 kbp characterized as double-stranded RNA. Sonicated *B. bovis* cells were centrifuged in a CsCl buoyant-density gradient and a fraction containing the double-stranded RNA was examined by electron microscopy. Virus-like particles were observed, which might be related to the 5.5 kbp RNA.

SUPPORTED BY FINEP, CNPq AND FAPERGS.