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## SUMMARY OF THESIS*

PINTO, Pedro Luiz Silva – Circulação e caracterização de *Trypanosoma cruzi* isolados de mamíferos silvestres capturados no Estado de São Paulo, Brasil. São Paulo, 2000. ( Tese de Doutorado – Faculdade de Saúde Pública da Universidade de São Paulo).

# TRANSMISSION AND CHARACTERIZATION OF *TRYPANOSOMA CRUZI* ISOLATES FROM SYLVATIC MAMMALS CAPTURED IN THE STATE OF SÃO PAULO, BRAZIL

The circulation of *Trypanosoma cruzi* among sylvatic animals was studied in two regions of São Paulo State. These regions have distinct ecological and epidemiological features based on human transmission in areas with and without the domestic presence of triatomines. The studied areas were: Planalto Ocidental Paulista region, country of Araraquara, an old endemic area and Vale do Ribeira and Litoral regions, countries of Eldorado, Iguape and Ilhabela, considered non-endemic areas.

Of the 198 animals examined at total, 16 isolates of trypanosomes were obtained from 11 mammals: 1 *Didelphis albiventris*, 5 *D. marsupialis*, 2 *Proechimys iheringe* and 3 *Philander opossum*.

Nine samples out of 16 isolated by xenoculture, 4 by hemoculture and 3 by culture of liver and spleen puncture. Using these 3 methodologies it was possible to select different populations of *T. cruzi* from the same host.

Using morpho-biological criteria all 16 isolates were classified as *T. cruzi*. All of had low virulence to rats and mice.

The amplification of kDNA minicircle, by PCR, using P35/36 primers, also confirmed the identification of the isolates as *T. cruzi*.

The molecular characterization of isolates was based on the amplification, by PCR, of a mini-exon gene intergenic region segment, that defines two major genetic groups: *T. cruzi* I and *T. cruzi* II. Out of 9 *Didelphis* isolates strains, 7 were classified as *T. cruzi* I and two as *T. cruzi* II. These findings confirm a preferential transmission of the group *T. cruzi* I in marsupials of the genus *Didelphis*. However, the isolates from *Proechimys* and *Philander*, all of them coming from Ilhabela county, did not react with either of the molecular markers.

The variability of the isolates was studied by RAPD. By this method, the patterns of the isolates classified as *T. cruzi* I were distinct from those *T. cruzi* II. Great similarity was observed among isolates from the same host species and belonging to the same geographic area. These findings suggest the existence of *T. cruzi* populations more homogeneous features, circulating in same geographic area.

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