

## SUMMARY OF THESIS\*

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CABALLERO ESPINOSA, Zuleima del C. - **Influência da utilização de cepas de *T. cruzi* dos grupos TCI, TCII e Z3, na performance imunodiagnóstica da doença de Chagas no Brasil e no Panamá.** São Paulo, 2006. (Dissertação de mestrado - Instituto de Ciências Biomédicas da Universidade de São Paulo).

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### INFLUENCE OF GROUPS OF *T. cruzi* TcI, TcII AND Z3 IN THE DIAGNOSTIC PERFORMANCE OF CHAGAS DISEASE IN BRAZIL AND PANAMÁ

*T. cruzi*, the agent of Chagas disease, could be classified within two major lineages, *T. cruzi* Group I (TcI) and *T. cruzi* Group II (TcII) and Z3, presenting differences in several biochemical and biological aspects. Genetic markers, which allow typing of *T. cruzi*, showed that the two major groups have different phylogenetic origin that co-evolved in different ecological and epidemiological traits. The bulk of these results stimulated investigations regarding to possible association of *T. cruzi* groups with human infection and serological titers. This project aims to analyze the sensitivity and specificity of ELISA and TESA-blot, performed with strains of *T. cruzi* TcI, TcII and Z3 as antigens [total extract of epimastigote forms (EAE) or exoantigens of trypomastigote forms (TESA)]. A sensitivity of 100% and specificity of 74.5% - 84.2% were obtained in EAE-ELISAs, with 154 analyzed

samples. Cross-reaction of 71 - 100% were presented by *Leishmania* spp. infected individuals and 9% to 28% by *T. rangeli*. In a seroprevalence study performed in Mendoza-Panama, TESA-blot (a reference test) as well as EAE-ELISAs showed positivity of 13.3% (16/120). In this study were included the analyses of six commercially available ELISAs, whose only two showed a positivity of 13.3%. The sensitivity data led us to conclude, that tests for diagnosis of Chagas disease can be performed with non regional strain. *T. rangeli* infected patients seems to have no antibodies against *T. cruzi* or *T. rangeli* antigens, so these patients present no problem in the Chagas disease diagnosis.

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