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# Experimental chagas disease: Vaccination with *Trypanosoma rangeli* modulate the innate immune response in mice challenged with *Trypanosoma cruzi*

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*Trypanosoma cruzi* is a real challenge to the host immune system, because it requires strong humoral and cellular immune response, for removal of trypomastigotes circulating forms, and amastigotes replication forms in tissues, involving many regulators and effectors components. This protozoa is responsible for Chagas disease, a major public health problem in Latin America We have developed a model of vaccination with *Trypanosoma rangeli*, a parasite closely related to *Trypanosoma cruzi*, but non-pathogenic to humans, which reduces the infectiousness of mice against challenge with *T. cruzi*. In the previous work, we demonstrated that mice vaccinated with *T. rangeli* showed an important phagocytic activity versus only infected groups. The aim of this work was to study in peritoneal fluid different population cells and some soluble mediators (cytokines) in mice vaccinated - infected with *T. cruzi*. The results showed in vaccined mice, in the first hours of challenge, increase of NK, Granulocites, Dendritic cells, regulation of IL6, IFNγ, TNFα and IL10, with marked increase of IL12, with respect to only infected controls. Furthermore it was observed an increase of Li T, Li B responsible for adaptive response. Finally the findings showed that the innate immune response play an important role in vaccinated mice, for the early elimination of the parasites, complementary with adaptative immune response, suggesting that vaccination with *T. rangeli* modulate the innate response, which develops some kind of immunological memory, recognizing shared antigens with *T. cruzi*. These results could contribute to the knowledge of new mechanisms of the innate immune response in Chagas Disease

## Biography

Basso Beatriz has completed her PhD from National University of Córdoba, Argentina. She was visiting Researcher at Michigan State University and Universite Libre de Bruxelles. She is Professor at School of Medical Sciences, Natl. Univ. of Córdoba, Director of Research Projects on Immunology of Chagas` disease and Vaccination, subject on which she has published more than 80 papers. She has 10 awards in national and international conferences and is serving as Referee and Editorial Board Member of international journals.

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