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## **Role of the CD200-CD200R interaction in infection of macrophages by *Leishmania***

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There are numerous gaps in our knowledge about the strategies used by *Leishmania* species to survive within macrophages, among them, parasite survival in the harsh environment of the phagolysosome, and modulate the immune response mediated by this cell. The main objective of the proposed study is to analyze the molecules induced in the host cell in response to parasite infection that are associated with inhibition of macrophages. Particularly, our main interest is to study the factors that modulate the expression of CD200, a molecule induced after infection with amastigotes of *Leishmania* (*Leishmania*) *amazonensis* that modulate macrophage response by an iNOS dependent pathway. Thus, the present project aims to study signaling pathways stimulated by the parasite and the potential role of Toll-like receptors (TLRs) in the expression of CD200 on macrophage and phagocytic cells. Furthermore, we intend to investigate the role of CD200 in the biogenesis of parasitophorous vacuole, since the absence of this molecule impairs parasite growth generating noticeably smaller vacuoles. Thus, the aim of this project is to elucidate important aspects of the cell biology of infection by *Leishmania* species in the search for new therapeutic targets for the treatment of the disease.

### **Biography**

Mauro Javier Cortez Veliz obtained his Biomedical degree at University of Antofagasta, Chile, in 2000. He went to Sao Paulo, Brazil to pursue a Doctorate, which he obtained in 2004. He worked as a Postdoc at Federal University of Sao Paulo at the Microbiology and Immunology Department, until 2007. He arrived at the Department of Microbial Pathogenesis in Yale University and then moved to the Department of Cell Biology & Molecular Genetics at the University of Maryland, until 2011. In 2011, he returned to Brazil to work as Assistant Professor, at The University of Sao Paulo, working in the *Leishmania* model.

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