



**Spatial Distribution and Means of Dissemination of the Agents and Infection of
American Visceral Leishmaniasis in the State of São Paulo**

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Introduction: American Visceral Leishmaniasis (AVL) is characterized to-day as a major endemic parasitic disease in the state of São Paulo and several other regions in Brazil. To-day, autochthonous cases of AVL in humans or dogs are identified in the regions covered by the regional health departments of Araçatuba, Bauru, Marília, Presidente Prudente, São José do Rio Preto, Campinas, Sorocaba and the Metropolitan Region of São Paulo. Very little is known about the diversity of the Leishmania species circulating in São Paulo. A consideration of the legion of techniques and methodologies available to-day to identify specific subpopulations of protozoa of the Leishmania genus will clarify these hidden areas and their epidemiological importance; improved laboratory diagnosis. It is essential to be aware of the spatial distribution and means of dissemination at work in the state when investigating environmental factors associated with transmission and their interaction with scalars causing infection in animals and humans. In confronting these challenges, this research calls attention to a major question: to what extent is the spatial issue fundamental to an understanding of the process of the disease? This project aims to develop an integrated overview of the socio-environmental conditions in the transmission cycle of American Visceral Leishmaniasis (AVL) in the state of São Paulo. **Methodology and development:** Geo-epidemiological knowledge, geo-processing tools and spatial analysis will be used to analyze the means of dissemination of the agents and infection of the disease in the human and canine populations. An environmental survey will be made to understand the context of the field. Cartographic databases will be constructed to explain the phenomenon under study (AVL) based on the literature concerning the subject. The second stage will be the cross-referencing of data. Critical analysis will take place of the laboratory techniques constituting the diagnostic arsenal for a better understanding of the process of the Leishmaniasis disease. **Final thoughts:** The comparison of these different experiences as well as the results of laboratory diagnosis of Leishmaniasis will need to be incorporated in the layers of mapped information and analysis that will take place.

Key words: American Visceral Leishmaniasis; epidemiological surveillance; means of dissemination; GIS