

## Abstract

The aim of this thesis is to depict the means of *Leishmania* development in sand flies (Phlebotominae). Three main *Leishmania* evolutionary branches (subgenera *Leishmania*, *Viannia* and *Sauroleishmania*) have a slightly different development in the vector, the *Sauroleishmania* development being the least known. The vector-bound development of the subgenus *Leishmania* is localized in the midgut and foregut of the sand fly solely, whereas species of the *Viannia* subgenus occur in the hindgut (although the necessity of this phase for a successful development and infection of the vertebrate host is a matter of doubt) and the subgenus *Sauroleishmania* development is according to literature confined to the hindgut. Quite little is known about the genus *Endotrypanum*, according to phylogenetic data set inside the *Leishmania* group. In my bachelor thesis, I review up-to-date literature on the topic of different types of *Leishmania* development inside the sand flies and their probable reasons.