

INVERTEBRATE HOST TRIPANOSOMATIDS INTERACTION: UPTAKES LIPOPROTEIN

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Trypanosoma cruzi and *Trypanosoma rangeli* species utilizes the same invertebrate host mainly *Rhodnius prolixus* (Reduviidae). During its life cycle *T. rangeli* crosses the hemolymph of its invertebrate host, whereas *T. cruzi* mantaining in the gut lumen. We have previously demonstrated that living *T. rangeli* and *T. cruzi* parasites uptake lipids and protein to lipophorin (Lp). The presence of a specific receptor to Lp in the parasites surface is suggested based on experiments using ¹²⁵I-Lp. *T. cruzi* ¹²⁵I-Lp uptake was blocked in presence of unlabeled low density lipoprotein (LDL), and this suggested this lipoproteins using the same receptor. We also investigated the intracellular fate of lipids using Texas Red-labeled phosphatidylethanolamine-Lp (TR-Lp). Parasites were observed under confocal microscope and displayed fluorescent labeled lipids close the flagellar pocket (15 and 30`) and in vesicles at the posterior region. Two hours the fluorescent labeled lipids were found close the flagellar pocket and Golgi complex . We observed the same profile with 2h incubation, using fluorescent marker of mitochondrion (Mitotracker). In *T. cruzi* after 2h incubation with TR-Lp the fluorescent lipids were localized in reservosomes and anterior region close the flagellar pocket and Golgi complex. In conclusion, this study raises a novel set of molecular events which takes place during vector-parasite interaction.