

## LIPID METABOLISM OF *Herpetomonas megaseliae*

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*Herpetomonas megaseliae* is a monoxenic flagellated parasite, a member of Trypanosomatidae family, which infects the dipteran *Megaselia scalaris*. During its cycle of life, the parasite keeps in the lumen of the insect intestine. *H. megaseliae*, although nonpathogenic to humans, is a safe experimental model for biochemical studies of lipid metabolism of trypanosomatides. Lipids are hydrophobic molecules that play a large variety of cellular functions of great importance for all organisms. In this work, we have analyzed the capacity of *H. megaseliae* to incorporate and metabolize lipids. The parasites were incubated with  $^3\text{H}$ -fatty acid for 5 and 240 minutes for  $28^\circ\text{C}$ . After the incubation times, the cells were washed with PBS 1% sucrose and subjected to lipid extraction. Labeled lipids were separated by thin-layer chromatography (TLC) for neutral lipids. The spot of each lipid was scraped from the TLC plate and the radioactivity associated was estimated by scintillation counting. The results showed that, after only 5 minutes of incubation, the radioactivity was mostly associated with phospholipids and diacylglycerol. After that, the cells were also able to produce triacylglycerol from  $^3\text{H}$ -fatty acids. In the future, experiments using  $^{14}\text{C}$ -acetate and  $^{32}\text{P}$ i as precursors will be performed to gain more insight about *H. megaseliae* lipid metabolism.

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