

FURTHER INVESTIGATIONS OF LIPID METABOLISM DURING *Aedes aegypti* DEVELOPMENT

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The mosquito *Aedes aegypti*, vector of several diseases as dengue and yellow fever, obtained energy sources such as lipids from bloodstream to provide the requirements to its growth and oogenesis. In this work, we investigated the lipid dynamic between absorption, storage and utilization sites in *Aedes aegypti*.

Larvae from different stages, pupae and male and female adults were separately homogenized in a mixture of protease inhibitors and subjected to lipid extraction. The lipids were separated by thin-layer chromatography (TLC) and analyzed by densitometry. The results shown that diacylglycerol (DAG) was the main lipid detected throughout the larval stages. Besides, a decrease of the triacylglycerol (TAG) content from the first larvae stage to the second one was verified. Moreover, we observe an increase of TAG amounts in the fourth larvae stage. After pupae-mosquito ecdysis, TAG and DAG were metabolized in a great rate during food deprivation until the first meal as adult.

In order to verify the larvae lipid biosynthesis, 1st, 2nd, 3rd and 4th larvae stages were incubated with ³H-acetate, as a lipid precursor, at different times. The results showed that mosquito larvae were able to synthesize cholesteryl ester, free fatty acids, monoacylglycerol, DAG and TAG from acetate at different rates.

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