

## INSULIN RESPONSE IN *MESOCESTOIDES CORTI* LARVAE

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The environment of animals strongly influence the processes which govern development reproduction and behaviour. The environment provides signals to which the organisms responds. These answers are generally mediated via complex endocrine and nervous systems. The host provides an environment essential for parasite development as well as the signals which induces the physiological and morphological changes necessary for the exploitation of that environment. As yet, the molecular mechanisms of cestode development and its interaction with the intermediate host are not understood. Based on the widespread utilization on insulin-like signalling mechanisms in metazoans it has been suggested that similar systems could also be used for developmental control in parasitic helminths. *Mesocestoides corti* –Cestoda: Cyclophyllidea– presents important properties as a model organism. The easy manipulation in the laboratory makes of it the selected model to begin the studies of functional genomics in cestodes. Since glucose levels are modified by insulin, we have initiated the study of the insulin-like pathway in *M. corti* larvae, searching for insulin receptor and glucose levels measurements when cultured larvae are exposed to insulin. We also considered the effect of insulin on protein levels and parasite growth. In the study reported here, we found an statistically relevant increase of intracellular glucose, protein levels and growth when cultured parasites are exposed to insulin. These results may contribute to understanding host-parasite relationship.

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