Expression Profile of *RaVasa* Gene in Germ Line of *Rhynchosciara americana*

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The diptera *Rhynchosciara* has become a valuable model system in the developmental biology research owing to its biological characteristics, since it has allowed the association of molecular biology with morphological aspects. An intense investigation was done in the identification of transcripts in the salivary glands; however the involvement of genes in the ovarian development in *Rhynchosciara americana* is practically unknown. The initial analysis of sequences of a cDNA library constructed with poli A+ RNA of ovary from larvae of different ages of *Rhynchosciara americana* showed messages related to different molecular functions and biological process. In the present work we isolated a *Rhynchosciara* homolog of vasa (*RaVasa*) and examined the temporal expression of *RaVasa* mRNA during the gonad development. The molecular structure showed the presence of conserved domains and RT-PCR was used to determine the distribution in different tissues of *Ravasa* with gene-specific primers. The *RaVasa* protein was immunolocated mainly in the cytoplasm both in whole mounting and squashed tissues preparations. The *RaVasa* gene encodes an ATP-dependent RNA helicase of the DEAD box protein family. It is specifically expressed in the germ cell lineage and is required for multiple processes in the development and maintenance of primordial germ cells. However, the expression of *RaVasa* as molecular marker of primordial germ cell fate in *Rhynchosciara americana* must be the next challenge of this work.