

## PROTEOMIC ANALYSIS OF PAPAYA INFECTED WITH *Papaya meleira virus*

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*Papaya meleira virus* (PMeV) is the causative agent of papaya (*Carica papaya* L.) sticky disease in Brazil. It represents an unusual pathosystems because the virus has a double-strand RNA molecule as genome and it colonizes the laticifers of the plant. In this work, the proteomic approach was applied in order to evaluate the interaction between PMeV and papaya. Diseased plant leaves were analyzed through 2-DE and MALDI-TOF-MS-MS, using healthy leaves as control. Database searching using the Mascot search engine resulted in the identification of ten proteins up and eleven proteins down regulated in the diseased samples. Among the induced proteins, some of them are involved in plant stress responses as ethylene-forming enzyme, xyloglucan endotransglycosylase and bacterial-induced peroxidase. By contrast, the majority of the repressed proteins are related with primary metabolism as fructose-bisphosphate aldolase, glyceraldehyde 3-phosphate dehydrogenase and ATP synthase. Thus, PMeV induces the synthesis of stress response proteins and it represses the synthesis of basic metabolism proteins of papaya. The validation of these data is now in progress.

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