

Immune response to nematobacterial infection

Pavel Hyršl

Entomopathogenic nematodes and their associated bacteria comprise together highly pathogenic complex able to invade and kill insect host within two days. Both bacteria and nematodes produce variety of factors interacting with insect immune system that help to overcome host defences. The tripartite model (*Drosophila*, nematodes, bacteria) was established and used to show an immune function for candidate genes using different *Drosophila* mutants or RNAi lines with defects in clotting or other branches of the immune system. We demonstrated an immune function during nematode infection for known clotting enzymes and substrates, recognition molecules, eicosanoids etc. In conclusion, we show that the *Heterorhabditis/Photorhabdus* infection model is suitable to identify novel regulators of innate immunity and we bring evidence of coagulation immune function in insects against nematode infection.