Identification of GILT interacting proteins in shrimp

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Gamma-interferon-inducible lysosomal thiol reductase (GILT) has been demonstrated to be involved in the immune response to bacterial and viral challenge in various organisms. We used drosophila and shrimp as models to study the mechanism of innate immune response in invertebrates. The Drosophila GILTs play a role in the innate immune response upon bacterial challenge. Over-expression of Drosophila GILT in fat body or hemocytes led to a low bacterial colony number whereas knock-down of Drosophila GILT in fat body or hemocytes led to a high bacterial colony number when compared to a wild-type control. In shrimp, GILT is highly expressed in response to white spot syndrome virus(*WSSV*) infection. Several *WSSV* proteins that interact with shrimp GILT are recently identified. The mechanism of GILT involvement in innate immune will be discussed.

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