

## Molecular Developmental Genetics in Arthropod Development

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The Molecular Developmental Genetics lab investigates factors that influence arthropod development. Key areas of interest are (1) how do various stressors – nutritional stress, UV irradiation, injury – influence the timing of developmental transitions in the fruit fly, *Drosophila melanogaster*, (2) how do steroid hormones regulate juvenile development and adult behavior in *D. melanogaster* and the Western Black Widow spider, *Lactrodectus hesperus*, and (3) what molecular and genetic changes are required to prepare *Drosophila* larvae to enter metamorphosis. Understanding factors that regulate development and behavior in arthropods may help to better understand the molecular and genetic mechanisms underlying human development.