Antagonistic co-evolution as driver of behavioural traits

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Abstract

The interactions of individuals with members of their own species and with members of other species are a strong driver for the rich diversity in forms, functions, strategies and behaviors. We study the evolution of traits and behaviours in various ecological interactions of *Drosophila*, including sexual conflicts, interference competition for food, host-parasitoid co-evolution, and the invasive biology of a pest species. In particular, we focus on the genomic basis of adaptive evolution of complex traits and behaviours, especially in antagonistic interactions. Antagonistic interactions can result in continual adaptations and counter-adaptations among the involved parties, and can lead to dynamic and rapid evolution. This is also exemplified in that the fastest evolving genes are those that are involved in defense and sexual conflict. In this presentation, I will present our current studies of antagonistic co-evolution as driver of phenotypic and genetic variation in behavioural traits.

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