Patterns and processes of chemosensory genes evolution in the Drosophilidae

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Résumé

Chemosensory genes rapidly evolve but the driving forces remain unclear. I present here our current projects in multiple Drosophila species. These projects reveal roles of receptors variation in eliciting avoidance against a toxin, driving the convergent specialization on a toxic fruit, maintaining a sexual mimicry syndrome, and underlying a major transition in a species that became a kleptoparasite inquiline in honeybee nests. A full picture of sensory evolution in a clade can thus be drawn.