



From Microbes to Behavior: How Social Insects Manage Disease

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Abstract: Social insects live in densely populated societies where frequent interactions among individuals create opportunities for pathogens to spread. My research explores the different ways social insects cope with this challenge, from associations with beneficial microbes to behavioral responses to infection. Using honey bees and ants as model systems, we have investigated whether members of the gut microbiome can inhibit fungal pathogens and potentially contribute to host defense. More recently, our work has focused on how ants respond behaviorally to infection, including whether infected individuals alter their dietary choices in ways that may reduce the costs of disease. I will discuss findings from these projects as well as the experimental challenges of studying disease and self-medication in social insect colonies. Together, this work examines how microbial and behavioral processes operating at the individual level may contribute to health in complex insect societies.

Wednesday, September 30 | 2:00pm-3:15pm | Science Hall 126 & Zoom

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