

Mapping neural circuits for fly grooming as a model motor sequence

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How the nervous system coordinates complex behaviors remains a puzzle. Grooming behavior in the fruit fly *Drosophila* is a sequence composed of leg movements targeted to clean different body parts. Grooming is initiated by sensory cues and executed by motor circuits. The wealth of genetic tools and anatomical resources make this behavior a powerful experimental model system to explore how innate, rhythmic, but flexible sequences are controlled by neural architecture we may share. I will present new work from my lab at UCSB starting from command-like neurons to uncover principles that organize this behavior as well as the circuits that implement them. I will briefly explain how forays into the connectome motivate my sabbatical project to design new genetic reagents to access neurons of interest. I look forward to discussion and feedback.