Preliminary insights into the neural control of swimming in a model jellyfish

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Abstract

We have been developing the jellyfish *Clytia hemispherica* as a model organism to study the neural control of behavior and nervous system evolution. Here, I will present our observations on *Clytia's* surprisingly rich repertoire of swimming behaviors. I will then describe recently established genetic tools that allow us to image population-level neural activity in living animals. Lastly, I will present preliminary analyses of how neural activity is organized in the jellyfish nervous system, including how activity in distinct neural subpopulations correlates with aspects of swimming. Looking forward, *Clytia* presents an exciting platform for high-resolution studies of the neuromuscular control of behavior.

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