生命科学セミナー

Circuit mechanisms underlying the action selections in *Drosophila* larva

大山　友子　博士

Department of Biology, McGill University

Assistant Professor

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京都大学医学・生命科学総合研究棟　(G 棟)　セミナー室 B

To make optimal decisions and adapt successfully, animals need to make use all of the sensory inputs (e.g., visual, olfactory, tactile, noxious) they can detect, which initially arrive through selective channels. A central question of neuroscience is how nervous systems transform these initially segregated inputs into holistic multisensory representations, and how these representations are then used to guide the selection of actions. Our research is focused on understanding fundamental circuit mechanisms that underlie action selection. To this end, we study escape behaviors in larval *Drosophila melanogaster*. We combine high-throughput behavior analysis, connectome analysis using transmission electron microscopy reconstruction, and live imaging/physiology of neural activity. Using these techniques, my group is currently addressing how the nervous system 1) integrates sensory information to determine the final behavioral output, 2) generates properly ordered action sequences, and 3) mediates experience-dependent changes in behavior.

（発表スライドは英語表記、発表は英語と日本語の併用で行われます）

連絡先　　細胞認識学分野、生命情報解析教育センター (CeLiSIS)

Tadao Usui　　碓井　理夫 (内線)　９２３９