

アドバンス生命理学特論 Topics in Advanced Biological Science

IGER SEMINAR

脳拠点セミナー

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How sex-determining genes specify circuits influencing male-type aggression in *Drosophila*

Sex determination is genetically programmed, but no single gene accounts for all sexually dimorphic features. In mammals, the androgen and estrogen steroid hormones coordinate sex determination by signaling through specific nuclear receptors. In *Drosophila* two transcription factors, Doublesex (Dsx) and Fruitless (Fru), are the actuators of sex determination. We are particularly interested in understanding the genetic mechanisms by which sexually dimorphic behaviors, and the underlying dimorphic neural circuits, are specified. Here, we investigate the modular roles of Dsx and Fru in controlling specification of sexually dimorphic neurons important for male aggressive behavior in the *Drosophila* brain. We combine genetic and neuronal manipulation techniques to reveal combinatorial nature of mechanisms underlying the formation and operation of aggression-controlling neural circuits. This study identifies a genetic mechanism for transforming specific neural components that support sex-specific social behavior.

***Talk in English**

November 24th (Thu) 14:00~

E131 room, Science E Building

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