

# 第 1278 回生物学セミナー

日時： 4月22日（月） 17:00 ~ 18:00

演者： Séverine Chambeyron

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演題： Biochemical characterization of the piRNA-guided heterochromatin formation complex

In eukaryotes, trimethylation of lysine 9 on histone H3 (H3K9me3) is involved in the transcriptional silencing of transposable elements (TEs). In *Drosophila* ovaries, this repressive chromatin mark is thought to be deposited on TE genomic loci after the initial recognition of their nascent transcripts by PIWI-interacting RNAs (piRNAs) that guide a piRNA-induced transcriptional silencing (piRITS) complex. The composition and mechanisms of action of the complex are still elusive. We will present the biochemical and genetic characterization of the *Drosophila* piRITS complex. We show that the H3K9me3 deposition by the Eggless/SetDB1 histone methyltransferase requires Mep-1 and Mi-2 proteins and also other subunits of the chromatin remodelling complexes. Moreover, we found that the mouse NuRD subunit CHD5 also interacts with the PIWI protein MIWI2 in mouse embryonic testes, suggesting a conserved mechanism for the role of Mi-2 in piRITS in metazoans.

場所： 理学部 1号館 東棟 287号室

担当： 東京大学大学院理学系研究科・生物学専攻 塩見研究室