# 第 40 回日本免疫学会学術集会　テクニカルセミナーのご案内

日時：2011 年 10 月 29 日（火）12：00～13：00
場所：幕張メッセ　3F　J 会場（302）
　　〒261-0023 千葉市美浜区中瀬 2-1　TEL：043-296-0001

座 長　：千葉大学大学院医学研究院 疾患生命医学　幡野 雅彦
講演者：独立行政法人 理化学研究所 免疫・アレルギー科学総合研究センター　古関 明彦

## Genetic approaches to understand molecular mechanisms underlying Polycomb repression

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First part of my talk will be focused on the mechanistic aspects of Polycomb group (PcG) gene products to mediate the repression of *Hox* cluster genes, which are well-known determinants for segment identity along the anterior-posterior axis.　It is established PcG proteins mediate Hox repression by forming at least two distinct evolutionally conserved protein complexes, PRC1 and PRC2, which mediate histone H2A mono-ubiquitination (H2Aub1) and H3K27 trimethylation (H3K27me3), respectively. Genome-wide studies supported that this biochemical cascade is active. However, molecular mechanism to mediate the repression by PRC1 is still not clear since PRC1 can mediate the chromatin compaction in histone tail-independent manner and H2Aub1 deposition is not sufficient for the silencing. This implies that PRC1 uses some other mechanism for silencing. In this study, we focused on the role of Polycomb body for Polycomb silencing. PRC1 has been show to form subnuclear structure called “PcG body” in various tumor cells whilst its biological implication is yet known. In this study, we tackled this issue by combining genetic and imaging approaches.　We found SAM domains of Polyhomeotic homologues mediate focal accumulation of PRC1 to form Polycomb body and　condensation of Polycomb target genes.

セミナーお弁当引換券発行は、当日の 7：30～11：30（以降は各会場前にて）配布いたします。

特定非営利活動法人 日本免疫学会 Japanese Society for Immunology

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