

# 生命科学セミナー

## Elucidating lysine deacetylase and acetyltransferase functions in Arabidopsis

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日時: 2月19日(水曜日) 17:00~18:00

場所: 農学・生命科学研究棟(京都大学北部構内)  
セミナー室(2) (1階 104号室)

The reversible acetylation of lysine residues is catalyzed by the antagonistic action of lysine acetyltransferases and deacetylases, which can be considered as master regulators of their substrate proteins. Lysine deacetylases, historically referred to as histone deacetylases, have profound functions in regulating stress defenses and development in plants. Thus far, the lysine deacetylases from the RPD3/HDA1-family have mainly been studied in the context of their deacetylating activities on histones. In this talk, I present new target proteins recently identified as substrate proteins of lysine deacetylases from the Arabidopsis RPD3/HDA1-family. Among the deacetylase substrate proteins, many interesting candidates involved in nuclear protein import, transcriptional regulation, and chromatin remodeling have been identified. These candidate proteins represent key starting points for unraveling new molecular functions of the Arabidopsis lysine deacetylases.

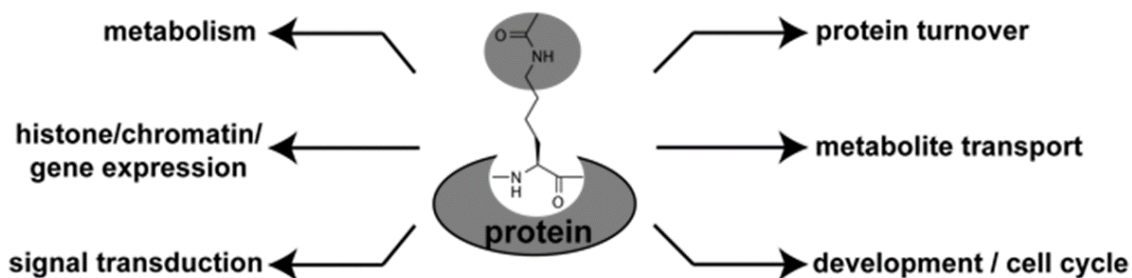


Figure 1: Cell functions regulated by lysine acetylation.