

生命科学セミナー

DELLA proteins: more than just gibberellin signaling

Prof. Miguel A. Blázquez

**Instituto de Biología Molecular y Celular de Plantas,
Consejo Superior de Investigaciones Científicas-
Universidad Politécnica de Valencia, Spain**

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**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 correct integration of environmental information into growth and developmental outputs is an extraordinary ability of plants that allows them to adapt and survive. DELLA proteins are transcriptional regulators that restrain growth and adjust development in response to environmental signals. The current view indicates that two characteristics of DELLAs sustain this role: (i) they are degraded in response to the hormone gibberellin (GA), whose metabolism is highly responsive to the environment; and (ii) they interact with multitude of transcription factors. However, we have found that DELLAs are also regulated by CONSTITUTIVE PHOTOMORPHOGENIC1 (COP1), an E3 ubiquitin ligase known to regulate photo- and thermomorphogenesis. We propose that DELLA proteins can integrate environmental information not only through the GA pathway, but also through a COP1-mediated pathway.