

## **Attenuation of GA signalling by the plant SUMO system**

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Plants survive adverse conditions by modulating their growth in response to a changing environment.. Gibberellins (GAs) play a key role in these adaptive responses by stimulating the degradation of growth repressing DELLA proteins. GA binding to its receptor GID1 enables association of GID1 with DELLAs. This leads to the ubiquitin-mediated proteasomal degradation of DELLAs and consequently growth promotion. We report that DELLA-dependent growth control can be regulated independently of GA. We demonstrate that a proportion of DELLAs are conjugated to the Small Ubiquitin-like Modifier (SUMO) protein, the extent of conjugation increases during stress. We identify a SUMO interacting motif (SIM) in GID1 and demonstrate that SUMO-conjugated DELLA binds to this motif in a GA-independent manner. The consequent sequestration of GID1 by SUMO-conjugated DELLAs leads to an accumulation of non-SUMOylated DELLAs resulting in beneficial growth restraint during stress. We conclude that plants have developed a GA-independent mechanism to control growth