

Title Hidden aspects of innate immunity of *Arabidopsis* to *Botrytis cinerea*
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Abstract

Botrytis cinerea is a ubiquitous pre- and postharvest necrotrophic pathogen with a broad host range that causes substantial crop losses. Germinating *B. cinerea* conidia penetrate through the cuticle and epidermal walls leading to the death of invaded cells and to tissue softening, rot or necrosis, depending on the invaded parts. The cuticle and the cell wall are considered important potential barriers for this fungus. Unexpectedly, we observed several situations where this classical and intuitive notion turns out to be invalid. Firstly, a powerful resistance was observed against *B. cinerea* in plants impaired in cuticle structure and permeability (abnormal cuticle-associated resistance; ACR). They included plants overexpressing a gene encoding a fungal cutinase as well as mutants with alterations in various genes associated with synthesis of the cuticle. Secondly, strong immunity was also obtained in plants when *B. cinerea* spores were inoculated directly at wound sites (wound-induced resistance; WIR). The absence of symptoms after *B. cinerea* inoculation in ACR and WIR was associated with a strong decrease in hyphal growth compared to wild-type plants. This implies the deployment of active defence mechanisms in the plant. This talk will present an overview of what we have learned on the molecular basis of ACR and WIR with respect to early events, defence signalling and expression of genes involved in defence.