

## *Xanthomonas* Manipulates Host Defense Response to Produce Disease

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*Xanthomonas campestris* is causal agent of disease in cruciferous plants worldwide. In the biosphere plants are able to defend themselves through the deployment of both constitutive and induced defenses. Different signalling pathways are effective in mounting defense responses to different pathogens. The salicylic acid pathway is commonly involved in the defense against biotrophic pathogens like bacteria. In opposition the jasmonic acid pathway is involved in the defense against necrotrophic pathogens like fungi. These two pathways are antagonic, the activation of one of this pathways leads a inactivation of the other, so its important to the plant recognize the kind of pathogen and activate the more effective defense pathway. To cause disease, a successful pathogen must counter or evade this defenses. In a previous work, we characterized a compound of *Xanthomonas*, the cyclic  $\beta$ -(1,2)-glucan, as a suppressor of plant immune responses (Rigano et al, *Plant Cell*, 2007). The glucan is able to suppress expression of *PR1* and callose deposition. Our study of the molecular mechanism of this suppression suggest that the cyclic glucan is recognized by the plant as an elicitor wich activates the jasmonic acid pathway. This way is ineffective against biotrophic bacteria, and suppress the salicylic acid pathway wich is effective against biotrophic bacteria like *Xanthomonas*.

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