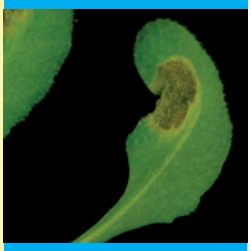
The *Xanthomonas* type III effector XopD targets the *Arabidopsis* transcription factor AtMYB30 to suppress plant defence



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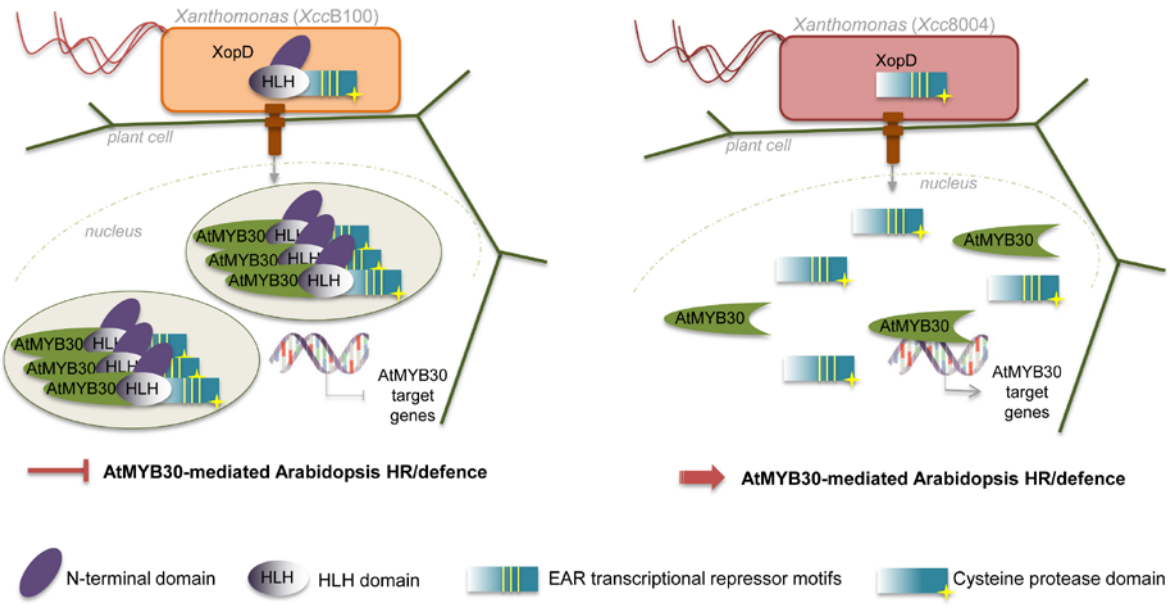
Plant and animal pathogens inject type III effectors (T3Es) into host cells to suppress host immunity and promote successful infection. XopD, a T3E from *Xanthomonas campestris* pv. *vesicatoria* has been proposed to promote bacterial growth by targeting plant transcription factors and/or regulators. We have showed that XopD from the B100 strain of *Xanthomonas campestris* pv. *campestris* is able to target AtMYB30, which is a transcription factor that positively regulates *Arabidopsis* defence and associated cell death responses to bacteria. XopDXccB100 specifically interacts with AtMYB30, resulting in inhibition of the transcriptional activation of AtMYB30 target genes and suppression of *Arabidopsis* defence. The helix-loop-helix (HLH) domain of XopDXccB100 is necessary and sufficient to mediate these effects. In contrast, XopD from the 8004 strain of *Xanthomonas campestris* pv. *campestris* does not contain an HLH domain and is therefore unable to interact with AtMYB30 an repress AtMYB30-mediated defence responses. High jacking of AtMYB30 by XopDXccB100 illustrates an original bacterial strategy to subvert plant defence and promote development of disease.



Canonne J, Marino D, Jauneau A, Pouzet C, Brière C, Pichereaux C, Rossignol M, Roby D and Rivas S[&](2011) The Xanthomonas type III effector XopD targets the transcription factor AtMYB30 to suppress Arabidopsis defence. **The Plant Cell**. doi/10.1105/tpc.111.088815