

What Developmental Biologists Can Learn from Plant Pathogens

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DOI [10.1016/j.devcel.2011.02.003](https://doi.org/10.1016/j.devcel.2011.02.003)

Several good friends of mine study disease resistance in plants, and I have loosely followed the enormous advances made in this area. Still, for a long time, I could not get very excited about plant-pathogen interactions. This paper from the Carrington group finally made me realize that even a dyed-in-the-wool developmental biologist like myself must pay closer attention to the field. I was at first surprised to see a pathogen paper published in *Developmental Cell*, even though I remembered that plant viruses sometimes induced rather bizarre developmental abnormalities. In this paper, the Carrington group revealed that such defects were because of collateral damage caused by a viral protein that blocks an antiviral gene silencing pathway. Since this pathway involves small RNAs, the viral protein inadvertently also interferes with microRNAs important for development. Viral suppressor proteins have since become important tools for dissecting the role of small RNAs in plant development and physiology.