



Cross-Kingdom RNA Trafficking for Crop Protection

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Message from the Guest Editor

Small RNA (sRNA)-mediated RNA interference (RNAi) is one of the key regulators in host immunity against bacteria, fungi, oomycetes, viruses, and pests. Except for working in host cells endogenously, these sRNAs can travel across the boundaries between organisms and induce gene silencing in the counterparty to suppress the virulence of pathogens, which is called cross-kingdom RNAi. Based on this discovery, host-induced gene silencing (HIGS) by transgenic expression of pathogen gene-targeting double-stranded (ds)RNA has been used to control pathogen attacks in many different crops. Furthermore, the direct application of dsRNAs or sRNAs onto host plants (referred to as spray-induced gene silencing, SIGS) has also been proved functional to suppress pathogen virulence and confers efficient disease control.

This Special Issue will focus on “Cross-Kingdom RNA Trafficking for Crop Protection”. We welcome novel research, reviews and opinion pieces covering all related topics.





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