

stomatal guard cells and mesophyll cells, but not epidermal cells, are targeted by *X. translucens* T3Es during the internal leaf infection stage. This system provides new insights into the spatiotemporal dynamics of plant-bacteria interactions during infection.?

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## **A NATURAL SINGLE NUCLEOTIDE MUTATION IN THE SMALL REGULATORY RNA ARCZ OF *DICKEYA SOLANI* SWITCHES OFF THE ANTIMICROBIAL ACTIVITIES AGAINST YEAST AND BACTERIA.**

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### **Text**

The necrotrophic plant pathogenic bacterium *Dickeya solani* emerged in the potato agrosystem in Europe. All isolated strains of *D. solani* contain several large polyketide synthase/non-ribosomal peptide synthetase gene clusters. Analogy with genes described in other bacteria suggests that the clusters *ooc* and *zms* are involved in the production of secondary metabolites of the oocycin and zeamine families, respectively. A third cluster that we named *ssm* for *solani* secondary metabolite had an unknown function. In this study, we constructed mutants impaired in each of the three secondary metabolite clusters *ssm*, *ooc*, and *zms* to compare first the phenotype of the *D. solani* wild-type strain D s0432-1 with its associated mutants. We demonstrated the antimicrobial functions of these three PKS/NRPS clusters against bacteria, yeasts or fungi. The secondary metabolite cluster *ssm*, conserved in several other *Dickeya* species, produces a secondary metabolite inhibiting yeasts. Phenotyping and comparative genomics of different *D. solani* wild-type isolates revealed that the small regulatory RNA *ArcZ* plays a major role in the control of the clusters *ssm* and *zms*. A single-point mutation, conserved in some *Dickeya* wild-type strains, including the type strain IPO 2222, impairs the *ArcZ* function by affecting its processing into an active form.

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## **THE SELECTIVE AUTOPHAGY RECEPTOR NBR1 IS A CENTRAL HUB IN PLANT IMMUNITY**

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