

Complex metabolic responses to biotic interactions in plants

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Plants produce a plethora of compounds, some of which are ubiquitously present, others are produced in response to environmental stimuli. The latter, secondary metabolites, function as toxins against pathogens, and in attracting beneficials. Thus, plant responses to pathogenic or beneficial microbes mostly focused on these specialized compounds. However, how and when the more general primary metabolites change in response to biotic interactions remains unclear.

Here, we investigate shifts in *Arabidopsis thaliana* metabolic profiles in tissues and exudates in a time-resolved manner. We inoculate with microbial elicitors, beneficial or pathogenic strains, or with a synthetic community, investigating plant metabolic responses. We find complex changes depending on the timepoint and chemical class, and phenotypic as well as metabolic changes in co-inoculation experiments.