

Plant–pathogen interactions: focus on salicylic acid signalling pathway

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In nature, plants are constantly exposed to a vast number of pathogens. Plants recognize microbial signatures to activate innate immune responses. Key role in immune responses plays phytohormones. Salicylic acid (SA) is a key phytohormone that controls many physiological processes. Since 1990 great attention has been paid to its role in plant defence against pathogens. Biosynthesis of SA is indeed one of the crucial processes how plant reacts to a biotic stress.

In our work we are currently focused on the involvement of phosphatidylinositol-4-kinase (PI4K) and actin dynamics in the SA signalling pathway. Also we found that treatment with saponin could trigger SA biosynthesis and lead to a plant resistance against pathogens.