



ABSTRACT

“ROP and Ca²⁺ signalling regulated patterning in Arabidopsis”

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The ability of plants to continuously regenerate their organs is a fascinating phenomenon that depends on the competence of cells to acquire a meristematic state. In the root, regeneration depends on asymmetric auxin distribution, which is facilitated by PIN-dependent polar transport. Hence, it is conceivable that cellular mechanisms that regulate PIN polarity should affect root regeneration. Our studies provide links between ROP GTPase-regulated cell polarity, auxin distribution, root regeneration and Ca²⁺ signaling. In my talk I will present published and unpublished data from our work on ROPs and the ROP effector ICR1 and discuss their implications.