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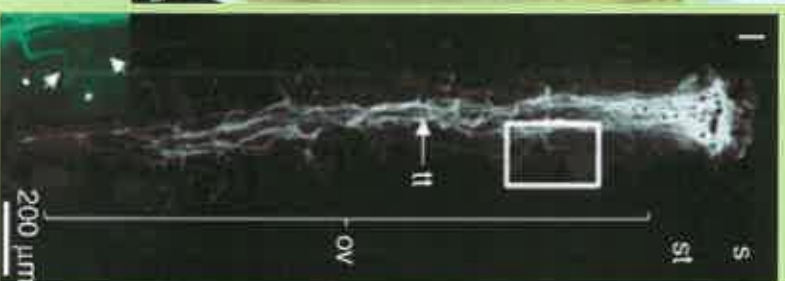


What's new in Plant-Soil-Microbe Interactions

GRR VASI Végétal - Agronomie - Sols - Innovation

Do you know ...

... the cell wall polysaccharide rhamnogalacturonan-II is involved in the control of pollen tube growth and plant development?



Rhamnogalacturonan-II (RG-II) is one of the pectin motifs found in the cell wall of all land plants. It contains sugars such as 2-keto-3-deoxy-d-lyxo-heptulosaric acid (Dha) and 2-keto-3-deoxy-d-manno-octulosonic acid (Kdo), and within the wall RG-II is mostly found as a dimer via a borate diester cross-link.

To date, little is known regarding the biosynthesis of this motif. Here, after a brief review of our current knowledge on RG-II structure, biosynthesis and function in plants, this study explores the implications of the presence of a Golgi-localized sialyltransferase-like 2 (SIA2) protein that is possibly involved in the transfer of Dha or Kdo in the RG-II of *Arabidopsis thaliana* pollen tubes, a fast-growing cell type used as a model for the study of cell elongation. This study highlights that the mutation in *arabidopsis* SIA2 encoding a sialyltransferase-like protein that may transfer Dha or Kdo on the RG-II motif has a dramatic effect on the stability of the pollen tube cell wall.

By Dumont et al., *Annals of Botany* (2014) 114 (6): 1177-1188.

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