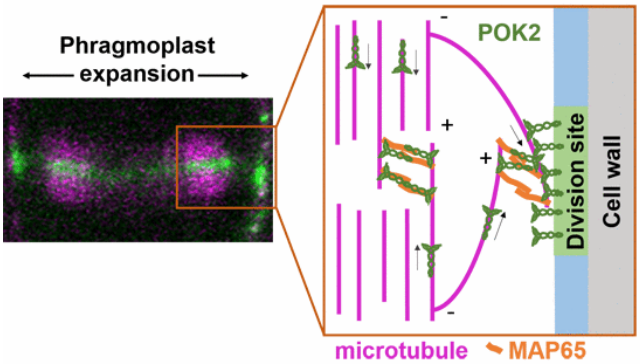
SFB 960-/BZR – Kolloquium

Donnerstag, 08. November 2018, 14.00 Uhr, H 53

Dr. Sabine Müller

Center for Plant Molecular Biology
Developmental Genetics
ZMBP - University of Tübingen

"Molecular mechanisms of cellular morphogenesis in Arabidopsis"



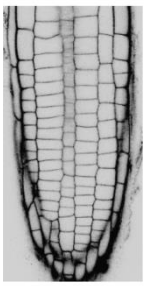
To acquire certain shapes, plant cells control the orientation of division planes and directions of polarized growth. Research in my lab focuses on the role of selected kinesin-12 motor proteins (POKs) in division plane maintenance. Furthermore, we are interested in the contribution of kinesin-12 interaction partners, putative RhoGAPs to division plane establishment and cell polarization.

References:

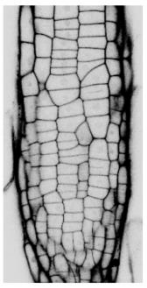
Herrmann et al. (2018). Dual localized kinesin-12 POK2 plays multiple roles during cell division and interacts with MAP65-3. EMBO reports 19: e46085.

Stöckle et al. (2016) Putative RopGAPs impact division plane selection and interact with kinesin-12 POK1. Nature Plants 2, 16120.

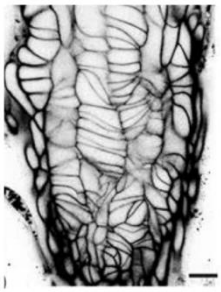
Lipka et al. (2014). The phragmoplast-orienting kinesin-12 class proteins translate the positional information of the preprophase band to establish the cortical division zone in Arabidopsis. Plant Cell 26: 2617-2632.



wild type



phgap1 phgap2



pok1 pok2

Host: PD Dr. Stefanie Sprunck, LS Zellbiologie und Pflanzenbiochemie

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