



UNIVERSITÄT **BONN**

Die Pflanzenwissenschaftlichen  
Institute

# Einladung zum Pflanzenwissenschaftlichen Kolloquium

**Freitag, den 17. Januar 2025, 12 c.t.**

Nussallee 4, Hörsaal Botanik

**Referentin: Prof. Dr. Margarete Baier**

*Pflanzenphysiologie, Freie Universität Berlin*

**Thema: „Regulation of and by the chloroplast antioxidant system“**

The chloroplast antioxidant system is a network of enzymes and non-enzymatic components, which detoxifies reactive oxygen species (ROS) and antagonizes their generation. The genes for the individual enzymes are highly differently regulated. The transcriptional individuality also applies to stromal and thylakoid ascorbate peroxidases (sAPX and tAPX), which arose through gene duplication and are still very similar in their catalytic properties. While fast induction of sAPX quickly supports plant stress acclimation, tAPX transcripts and proteins accumulate only slowly after the end of the stress period. We showed that the post-stress regulation of tAPX is a key component of a stress memory, that modifies stress responsiveness for several days. Comparison of transiently either sAPX or tAPX overexpressing plants differentiated the signaling impacts of sAPX and tAPX and highlighted the specific impact of tAPX on initiation and realization of chloroplast-to-nucleus ROS signaling.

**Diskussionsleitung:** Prof. Dr. Andreas Meyer, INRES - Chemical Signalling, Universität Bonn

Zu diesem Vortrag und zu einer evtl. Nachsitzung sind Sie herzlich eingeladen