

Einladung

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# Pflanzenwissenschaftlichen Kolloquium

# Dienstag, den 24. Juni 2025, 14 c.t.

Ort: Seminarraum 2.007, Kirschallee 1-3

## - Außerplanmäßiger Vortrag -

#### Referent: Prof. Dr. Liwen Jiang

School of Life Science, The Chinese University of Hong Kong

### Thema: "Biogenesis and Function of Plant Vacuole"

Membrane trafficking and organelle biogenesis play important roles in plant growth and development, as well as responses to external signals. The plant endomembrane system contains several functionally distinct membrane-enclosed organelles, including the endoplasmic reticulum (ER), Golgi apparatus, trans-Golgi network (TGN) or early endosomes (EE), prevacuolar compartment (PVC) or multivesicular body (MVB) and vacuole. One of our major research programs has been focused on illustrating the underlying mechanisms of membrane trafficking and vacuole dynamics as well as vacuole biogenesis and function in plant cells using a combination of cellular, molecular and genetic approaches. More recently, we have also developed and used whole-cell electron tomography (ET) analysis with nanometer resolution as well as Cryo-FIB (Focus Ion Beam)/ET technologies with native structures to illustrate the molecular mechanisms underlying vacuole fusion and vacuole fission in plant cells. Here I will present our recent research progress on plant vacuole biology. Supported by grants from the Research Grants Council of Hong Kong and CUHK.

**Diskussionsleitung:** Prof. Dr. Gabriel Schaaf, INRES – Institute of Crop Science and Resource Conservation Department of Plant Nutrition, Universität Bonn