



UNIVERSITÄT **BONN**

Die Pflanzenwissenschaftlichen
Institute

Einladung zum Pflanzenwissenschaftlichen Kolloquium

Montag, den 11. Mai 2026, 16 c.t.

Nussallee 9, Hörsaal X

Referent: Prof. Dr. Sheng Luan

Dept of Plant and Microbial Biology, University of California, Berkeley

– Außerplanmäßiger Vortrag –

Thema: „Coding and decoding of calcium signals in plant growth and defense“

Specificity in cell signaling is paramount to plant responses to specific environmental changes. Although calcium is a ubiquitous messenger in plant responses to numerous signals, the mechanism of signal-response specificity remains unclear. Studies in the past four decades in both animal and plant cell models have established the “calcium signature” concept that depicts a distinct calcium change in response to each specific signal. How is a calcium signature encoded by calcium transporters and channels working together and decoded by calcium sensors and their targets represent exciting but challenging questions in the field. Luan lab has been working on both encoding and decoding mechanisms for the past 25 years. They made several breakthroughs on calcium encoding mechanisms, including identification of calcium channels responsible for calcium spiking in pollen tube growth, pollen tube reception, and immune responses. They also pioneered the studies on “decoding” process by identifying and dissecting the Ca-CBL-CIPK signaling network that regulates nutrient sensing and homeostasis in plants. Dr. Luan will summarize these research findings to provide a conceptual framework on calcium signaling mechanisms in plants.

Diskussionsleitung: Prof. Dr. Peter Dörmann, Institut für Molekulare Physiologie und Biotechnologie der Pflanzen (IMBIO)

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