



UNIVERSITÄT **BONN**

Die Pflanzenwissenschaftlichen
Institute

Einladung zum Pflanzenwissenschaftlichen Kolloquium

Freitag, den 15. Dezember 2023, 12 c.t.

Nussallee 4, Hörsaal Botanik

Referent: Prof. Dr. Matthias Hahn

*Abteilung Phytopathologie, Fachbereich Biologie, Technische Universität
Kaiserslautern*

**Thema: „Redundancy of plant killing mechanisms of the grey mold
fungus *Botrytis cinerea*“**

Botrytis cinerea is a wide host range necrotroph. During invasion, it quickly kills host cells and colonizes dead tissue, supported by secretion of CWDE, cell death inducing proteins (CDIPs) and metabolites, and tissue acidification. However, it is still unclear how the fungus induces host cell death. Based on a highly efficient CRISPR/Cas9 protocol, we have constructed a series of up to 24-fold *Botrytis* mutants, lacking all currently known CDIPs. The mutants showed normal growth, but decreased virulence with increasing numbers of deleted CDIPs. The search for remaining CDIPs is ongoing, to generate finally a non-killing mutant. It has been postulated that *Botrytis* triggers the plant oxidative burst and hypersensitive response (HR) as an infection strategy. We assume that most CDIPs contribute to HR by activating plant defence receptors and pattern-triggered immunity (PTI). Infection of mutants or silenced tissues of *Arabidopsis* or tobacco lacking central PTI components are currently performed to identify the cell death pathways that triggered by *Botrytis* and their role for the infection process.

Diskussionsleitung: Prof. Dr. Armin Djamei, INRES-Pflanzenpathologie, Universität Bonn

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