

**Title** Mechanism of pathogenicity in *Botrytis cinerea*  
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### **Abstract**

*Botrytis cinerea* is one of the major threats for crop production, both as a pre- and a postharvest pathogen. The availability of a complete genome sequence and microarrays, and the application of molecular techniques have increased remarkably our knowledge of the biology and the mechanisms of infection of the grey mold pathogen. In my lecture, I will concentrate on morphological and molecular processes during early stages of development of a conidium on a plant surface. Conidial surface hydrophobicity promotes early attachment to the cuticle. In contrast to other fungi, no evidence was found that hydrophobins are involved in the coating of *Botrytis* conidia. Germination depends on both morphological (hardness, hydrophobicity) and chemical (sugars) signals. Depending on the signals, different modes of germination and penetration are observed. Signal perception occurs by unknown receptor systems and is mediated by either G-protein/ cAMP or MAP kinase signaling components. These components are also required for the expression of virulence factors that are required for penetration, killing and colonization of plant tissue. Amongst those, ABC- and MFS-type transporters that catalyse the energy-dependent efflux of plant defense compounds have been analysed in our group.