ABSTRACT

"From basic plant pathology research to fungal disease control in plants and humans"

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Early research at the "Plant-Fungus Interaction" group of the Center of Microbial and Plant Genetics (CMPG-PFI) on novel antifungal plant proteins has led to the discovery of the so-called plant defensins (PDFs), basic peptides with antimicrobial activities. Subsequent research at CMPG-PFI focused in one research unit on the function of these PDFs *in planta*, including their possible role in the plant's defense against necrotrophic fungi, and was recently extended to other novel stress-induced peptides. In the other research unit, the mode of antifungal activity of these PDFs was studied. Based on that expertise CMPG-PFI developed a platform for the discovery of novel antifungals with potential applications in agriculture, material protection and medical applications. The latter include treatment of fungal biofilms and the development of next-generation implants.