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## Ultrastructural details of *Appendiculella* sp. (Meliolales, Ascomycota) from Panama

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There are few ultrastructural studies showing details of the cellular interaction of Meliolaceae with their host plants. Therefore our goal is to compare the colonization and penetration process of *Appendiculella* sp. and *Asteridiella callista*. We found similar appressoria attached to epidermal cells of their respective hosts degradation of a small part of the basal appressorial wall which produced a penetration pore; an electron dense area in the vicinity of the penetration pore which indicates structural changes (SCH) in the epidermal cells. Similarities in the formation of an interaction apparatus. However, in *Appendiculella* sp., only early and late stages of the *Asteridiella callista* interaction type could be observed. The interaction apparatus fused to form a trunk which penetrated the host through the penetration pore and the connection between fungus and plant was established through an interaction canal. In contrast, the following ultrastructural details were only observed in *Appendiculella* sp., the attached appressorium penetrated the epidermis between two cells and perforated the cell walls of palisade cells. The interaction canal contained a septum-like structure. Vesicles with membranes were visible along the penetration canal and in its apex they were located in the vicinity of the fungal plasma membrane. A partial structural degradation and an electron opaque material with a mucilaginous appearance were observed in the palisade cell.

### Biography

Delfida Rodriguez Justavino has obtained her Bachelor's degree in Biology at the Universidad Autonoma de Chiriquí, Panama in 1996. Between 1998 and 2001 she received her Master's degree from the University of Costa Rica. In 2003, she began with her Doctoral thesis (Doktorarbeit) at the Johann Wolfgang Goethe University, Frankfurt, Germany and completed her study in 2006. She has worked for the Ministry of Agriculture and Development of Panama (MIDA) during 2008-2011. Between 2011 and 2013, she was awarded with DAAD fellowship for Postdoctoral studies at the Eberhard Karl University Tuebingen, Germany. Since November 2014 she has been working at the Agricultural Research Institute of Panama (IDIAP) and concentrates in a research project about different cultivars of rice of Panama collecting lesions of *Magnaporthe oryzae* (Catt.) B.C. Couch., which is the causal agent of the blast rice disease.

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