Cladosporium spp in indoor environments: Biodiversity boost or silent killer

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Species in the genus Cladosporium, are easily recognised and have a broad distribution, ranging from soil, and leaf litter to plant lesions and indoor air. Many species are xerophilic and can be isolated from surfaces such as leather, paint, tiles, and upholstery. Despite the fact that it is a serious allergen, there is no survey of Cladosporium species from indoor environments in South Africa. This is ironic as the presence and dominance of this group have been recorded and documented since the 1950's. Cladosporium is also known as plant pathogens causing lesions on a number of crops.

The genus, Cladosporium, are recognised by its olive green velvety colonies, but separating species are difficult and time consuming as species, particularly those in species complexes, are morphologically closely related. When dealing with human health, the need for quick reliable identification is obvious, especially when only a few species are problematic, while the vast majority are harmless to humans.

This study, thus propose, a survey of indoor Cladosporium spp. as they have been found to be dominant in indoor environments across South Africa. We further propose to identify these strains to species level, in order to access the presence of pathogens and correlate these to problem homes. In addition, the database will allow us to generate molecular markers for rapid identification of pathogenic species. All novel strains, will be described and assessed for their ability to produce allergens.