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Dark-skinned and Dangerous: The dual function of peroxisomes during *Magnaporthe* pathogenesis

Magnaporthe grisea, the causal ascomycete of the blast disease in rice, represents a model fungal system for analyzing important aspects of pathogenesis such as infection-related development, signalling cascades that control this process, and factors that govern host specificity. The molecular basis of infection-related morphogenesis of a plant-pathogenic fungus has not been fully explored yet. Elucidation of the underlying basis of this stimulus-response relationship would help us gain insights into molecules that control the infection process, and would lead to development of novel disease control strategies. Based on random insertional mutagenesis, we designed a novel functional genomics approach to analyze the pathogenicity pathway in *M. grisea*. This approach coupled with *in vitro* appressoria formation assays and *in planta* disease reactions on these insertional mutants has enabled us to identify about 30 mutants that show defects in pathogenesis related development. These represent lesions in genes involved in regulation of cytoskeleton; signalling modules; peroxisome biogenesis; sensory receptors, amino acid biosynthesis etc. My presentation will introduce the novel mutagenesis approach as well as provide insight into the two distinct but highly specific roles of Peroxisome function during host infection by the blast fungus.

Date: Friday January 3, 2003

Time: 4 pm-5pm

Venue: LT 20

Host: A/P Lim Tit Meng

All are welcome
Admission is FREE