

MGOS: A resource for studying Magnaporthe grisea and Oryza sativa interactions**2006**

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Soderlund C, Haller K, Pampanwar V, Ebbole D, Farman M, Orbach MJ, Wang GL, Wing R, Xu JR, Brown D, Mitchell T, Dean R.

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Abstract

The MGOS (Magnaporthe grisea Oryza sativa) web-based database contains data from Oryza sativa and Magnaporthe grisea interaction experiments in which M. grisea is the fungal pathogen that causes the rice blast disease. In order to study the interactions, a consortium of fungal and rice geneticists was formed to construct a comprehensive set of experiments that would elucidate information about the gene expression of both rice and M. grisea during the infection cycle. These experiments included constructing and sequencing cDNA and robust long-serial analysis gene expression libraries from both host and pathogen during different stages of infection in both resistant and susceptible interactions, generating >50,000 M. grisea mutants and applying them to susceptible rice strains to test for pathogenicity, and constructing a dual O. sativa-M. grisea microarray. MGOS was developed as a central web-based repository for all the experimental data along with the rice and M. grisea genomic sequence.

Community-based annotation is available for the M. grisea genes to aid in the study of the interactions.