disease resistance (R) proteins in a specific manner, referred as gene-for-gene interaction, and activating defense responses. The interaction between blast pathogen and rice follows the "gene-for-gene" theory in which r genes interacts a corresponding avr gene, and induces defense responses. The presence of *avr-pita*, an avirulence gene originated from *M. grisea*, was analyzed for the 80 strains of *M. grisea*, which were collected nationwide in 2003. Using the same strains, pathogenicity tests were carried out on a monogenic rice cultivar, IRBLta-K1, which carried the corresponding resistance (R) gene, *pita*. All strains, except 2, carried the *avr-pita* gene, however, lots of strains showed virulence and brought about disease symptoms, such as formation of typical disease lesions. Expression level of *avr-pita* gene was analyzed for the virulent and avirulent strains using RT-PCR.

**F-65 Functional characterization of SA- and JA- inducible OsWRKY.** Jae-Soon Seo, Ji-Young Lee, Jee-Eun Kim, Seok-Cheol Suh, Duk-Ju Hwang. National Institute of Agricultural Biotechnology, Suweon, 441-707, Korea.

Plants have the ability to defend themselves against pathogens by activating a series of defense responses. The activation of a series of plant defense responses is known to be through varieties of transcription factors. WRKY proteins are known to regulate defense response in plants. WRKY proteins are defined by the presence of highly conserved WRKY domain characterized by the hallmark heptapeptide WRKYGQK and a zinc-finger structure distinct from other known zinc finger-type motif. The WRKY domain binds to the W box ((T)TGAC(C/T)) in the promoter of wound- and pathogen-responsive genes. In this study we have isolated an OsWRKY gene from rice plants. This OsWRKY belongs to group III member that contains a $C_2$-HC motif instead of a $C_2$-$H_2$ pattern. The OsWRKY was induced by salicylic acid (SA) and jasmonic acid (JA) highly at 24hr respectively, suggesting that this OsWRKY might be involved in plant defense response. To determine whether this OsWRKY act as transcriptional activator, a transactivation assay of OsWRKY in yeast were carried out. It reveals that OsWRKY acts a transcriptional activator in yeast. Whether OsWRKY regulate defense signaling in rice will be discussed in detail.

**F-66 Disruption of *hrp*-related genes by homologous recombination in *Xanthomonas oryzae* pathovar *oryzae*.** Cho, Hee Jung, Young Jing Park, Eun-Sung Song, Dong-Hee Lee[1] and Byoung-Moo Lee. National Institute of Agricultural Biotechnology, R.D.A., Suwon, 441-707, Korea, [1]Department of Life Science, Ewha Womans University, Seoul, 120-420, Korea