

**F326**                      Loss of growth polarity in temperature sensitive *npg*-  
suppressor mutant of *Aspergillus nidulans*

Hyang Sook Hoe, Kwang Yeop Jhang\* and Dong Min Han  
Department of Molecular Biology, Wonkwang University  
Department of Biological Science, Chonbuk University\*

The *npgA*- mutant is defective in the arrangement of outer layer of cell wall which eventually results in the lack of pigments in hyphae, conidia and ascospores. Suppressors of *npgA1* mutation was screened and a temperature sensitive one was characterized. The mutant gene suppressed the *npgA1* mutation at high temperature but not below 30°C. It also showed defects in growth and differentiation at high temperature. The spores did not germinate and asexual sporulation was inhibited at 42 °C. Sexual organs hardly developed at 37°C. A noticeable phenotype was that germ tubes emerged without polarity at 37°C and hyphal tips became swollen and lost the growth polarity of apices when the mycelia grown at 37°C were shifted to 42°C. Electron microscopic analysis revealed that the hyphal wall was much thicker than wild type. The mutant gene designated as *snpA6* was recessive to wild type allele and located on chromosome III.

**F327**                      Isolation and characterization of *uvsI* gene  
in *Aspergillus nidulans*

Kyu Yong Han and Dong Min Han  
Department of Molecular Biology, Wonkwang University

A genomic DNA fragment which can complement *uvsI501* mutation defective in error-prone DNA repair of *Aspergillus nidulans* has been cloned (Han and Han, 1996: Proc. Mol. Biol. & Genet). The complementing activity was retained in the *Bam*HI 11.8kb DNA fragment, which was physically mapped. Wild type *uvsI* gene was insertionally disrupted with *Eco*RI 3.0kb fragment. The mutants showed same UV sensitivity as *uvsI501* mutant. Diploid containing both mutant alleles was also UV sensitive almost same level as the diploid homozygous for *uvsI501* allele, indicating that the cloned gene was true *uvsI*. The gene which was partially sequenced showed high similarity to *rev3* which encoded an error-prone DNA polymerase involved in UV induced mutagenesis in *Saccharomyces cerevisiae*.