

Project Profile

1. Project Title & Code : Identification and cloning of Gene(s) encoding Protein (s) toxic to *Trichosporium vesiculosum* Butler (IFGTB/RP5/2000-2005)

2. Name of the Principal Investigator : Dr. Modhumita Ghosh, Scientist G

3. Date of start & end; Total duration : 2000-2003 (3 Years)

4. Total Budget : 1730000

5. Main Objectives : Identification of a source of toxic protein(s) against the blister bark fungus *Trichosporium vesiculosum*. Purification of the protein(s) to homogeneity and their partial characterization. In vitro testing of the proteins against *T. vesiculosum*. Isolation and cloning of gene(s) encoding the antifungal protein(s).

6.Summary: : Two broad spectrum, non race specific antifungal proteins were purified in the present project including a 20 KD protein from *Plumbago capensis* and 39.5 KD protein from *Andrographis paniculata*. The proteins showed toxicity to the blister bark pathogen of *Casuarina equisetifolia*, *Trichosporium vesiculosum*. Further, a 16 KD antifungal protein from the bacterial exudates of *Streptococcus* spp. was also purified