We seek a candidate to join MPP group in Department of Plant Pathology and Microbiology at National Taiwan University to investigate the defensive role of type II glycine-rich protein (GRP) in plant immunity. LsGRP1 is a plant defense gene with an increased expression in lily leaves exhibiting salicylic acid-induced resistance against necrotrophic fungi Botrytis elliptica, and encodes a cell wall- and plasma membrane-located plant class II GRP. The antimicrobial activity present in C-terminal of LsGRP1 suggests LsGRP1 can protect lily from pathogen infection via the direct inhibitory effect on microbes. Besides, the expression profiles of LsGRP1 and some reports about other plant class II GRPs involved in callose deposition imply that LsGRP1 probably mediates the activation of some defense responses of the induced resistance. Accordingly, we try to evaluate the defense-related function and mechanism of class II GRPs though the study of LsGRP1 from monocot Lilium, and hope to offer background knowledge about class II GRP to develop a novel strategy for disease control.

Applicants should be highly motivated, collaborative, and capable of driving projects independently. Preferred qualifications are: (1) Strong background in molecular biology, phytopathology and microbiology. (2) Experiences in gene cloning, protein analysis (such as co-immunoprecipitation, yeast-two hybrid system, bimolecular fluorescence complementation), expression of recombinant proteins, detection of plant defense responses, transient and stable transformations of plants, manipulating microbes and plant materials, etc.

Contact us:

Please send a full CV and a cover letter to Dr. Lin via e-mail d95633001@ntu.edu.tw