Research Theme: Microbiology / Genomics

PhD Research Project Title: **Plant-pathogen interactions under climate change**

Scholarship category (Please indicate the source of funding for this project):

(a) SBS Research Student Scholarship (for SBS faculty only)

Principal Investigator/Supervisor: **Dr. Tang Bozeng**

Co-supervisor/ Collaborator(s) (if any):

Project Description

a) Background: Our planet is projected to experience higher temperatures, increased CO_2 emissions, and more extreme weathers over the next 100 years. These changes will impact natural ecosystems and plant physiology, ultimately affecting agricultural systems. Climate models predict that global warming will promote the spread and severity of plant diseases. To address this challenge, it is vital to understand how climate change drives pathogen genomic adaptation and alters molecular plant–microbe interactions.

b) Proposed work: This program provides training in microbiology, fungal genetics, and evolutionary biology to dissect pathogen climate adaptation and assess its effects on virulence and disease emergence worldwide. This would offer transformative insight of molecular plant pathology and inform proactive strategies to prevent future crop-disease outbreaks driven by climate change.

c) Preferred skills: Strong interests in plant pathology;
A strong curiosity about science;
Experience of bioinformatics is a plus, but not compulsory

Supervisor contact:
If you have questions regarding this project, please email the Principal Investigator:
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SBS contact and how to apply:
Associate Chair-Biological Sciences (Graduate Studies): AC-SBS-GS@ntu.edu.sg

Please apply at the following:
Application portal:
https://venus.wis.ntu.edu.sg/GOAL/OnlineApplicationModule/frmOnlineApplication.ASPX