

Research Theme: Computational Biology; Functional Genomics

1. **MSc Research Project Title:** Data mining for genes involving exopolysaccharide biosynthesis

Principal Investigator/Supervisor: Gao Yonggui

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

Project Description

a) Background:

Bacteria and plants synthesize a wide range of exopolysaccharides which have been implicated in diverse biological functions, including structural components/building blocks, biofilm formation, pathogenicity, and so on. However, what are the genes involve exopolysaccharide biosynthesis, and how these genes are regulated in a spatial and sequential manner still are not clearly understood.

b) Proposed work:

Transcriptional and translational regulation network in exopolysaccharide biosynthesis.

Data mining on available database genes involving in exopolysaccharide biosynthesis in special microorganisms.

c) Preferred skills: computation work on data analysis would be a big plus, but not indispensable

Supervisor contact:

If you have questions regarding this project, please email the Principal Investigator:
{ygao@ntu.edu.sg}

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>