

Research Theme: Computational Biology; Functional Genomics

1. **MSc Research Project Title:** Molecular analysis of proteins in ribosome biogenesis

Principal Investigator/Supervisor: Gao Yonggui

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

Project Description

a) Background:

Ribosome biogenesis involves over 200 proteins, and its biological process has poorly understood. In contrast, ribosome biogenesis has been implicated in many diseases, such as cancer. What is the difference between normal cells and cancer cells and what are the key factors in ribosome biogenesis which eventually dominate the fatal direction path in cancer development, these are interesting questions to be answered. In this proposal, we are seeking genes and proteins involving ribosome biogenesis in both normal and cancer cells through molecular network analysis on all available data.

b) Proposed work:

Data analysis on available genes and proteins involving in ribosome biogenesis in both normal and cancer cells.

Tagging approach for polysome profiling and mass analysis.

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:
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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>