# School of Biological Sciences College of Science

Reg. No. 200604393R

**Research Theme: Cancer Biology** 

PhD Research Project Title: Understanding cancer resilience

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

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

**Principal Investigator/Supervisor: Kanaga Sabapathy** 

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

# **Project Description**

# a) Background:

Cancer is a devastating disease and is on the rise. Therapy alone is insufficient to control the impending cancer tsunami. Alternative cancer prevention strategies, if possible, will help reduce the global cancer burden. Lessons from the animal kingdom suggest that some animals are resistant to caner development, such as the elephants and naked mole rats. Moreover, even among cancer-prone cohorts, some individuals do not develop cancers. These observations indicate that basic cancer resilience mechanisms are indeed operational, and if identified, can be harnessed for cancer prevention, which is the goal of this project.

# b) Proposed work:

The work will begin with understanding how animals are resistant to cancers, using samples from animals in nature, as well as model organisms. In addition, human samples from various groups will be analyzed. The collective integration of these data will provide clues to the question on cancer resilience. You will be using mouse models as well as computational models.

#### c) Preferred skills:

Cell culture, biochemistry techniques, molecular cloning, mouse handling (though not all are indispensable). Knowledge in computational techniques is desirable.

# **Supervisor contact:**

If you have questions regarding this project, please email the Principal Investigator:

Prof Kanaga Sabapathy kanaga.sabapathy@ntu.edu.sg

# SBS contact and how to apply:

Associate Chair-Biological Sciences (Graduate Studies) : <u>AC-SBS-GS@ntu.edu.sg</u>
Please apply at the following:

# **Application portal:**

https://venus.wis.ntu.edu.sg/GOAL/OnlineApplicationModule/frmOnlineApplication.ASPX

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