

Research Theme: Animal modeling, Drug discovery

MSc Research Project Title:

Developing infectious assays using preclinical zebrafish model

Principal Investigator/Supervisor: Xiao Tianshu Ph.D

Co-supervisor/ Collaborator(s) (if any): Yan Chuan Ph.D. (IMCB A*STAR)

Project Description

a) Background: The zebrafish is an ideal animal model for high throughput therapy discovery studies and high-resolution imaging. However, to date, utilizing zebrafish as a human viral infectious model remain largely unexplored. Establishing preclinically relevant infectious assays in zebrafish will provide a valuable tool for preclinical antiviral inhibitor discovery studies.

b) Proposed work: This project centers on developing infectious assays using either wild type or mutant transgenic zebrafish that lacks antiviral immunity. Human viruses, prioritizing flaviviruses will be injected into zebrafish models, establishing endpoints using various fluorescence reporters including, but not limited to cell apoptosis, microenvironment cues, immune cell infiltration etc.

c) Preferred skills: Animal modelling experiences are preferred, but not a requirement.

Supervisor contact:

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

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>