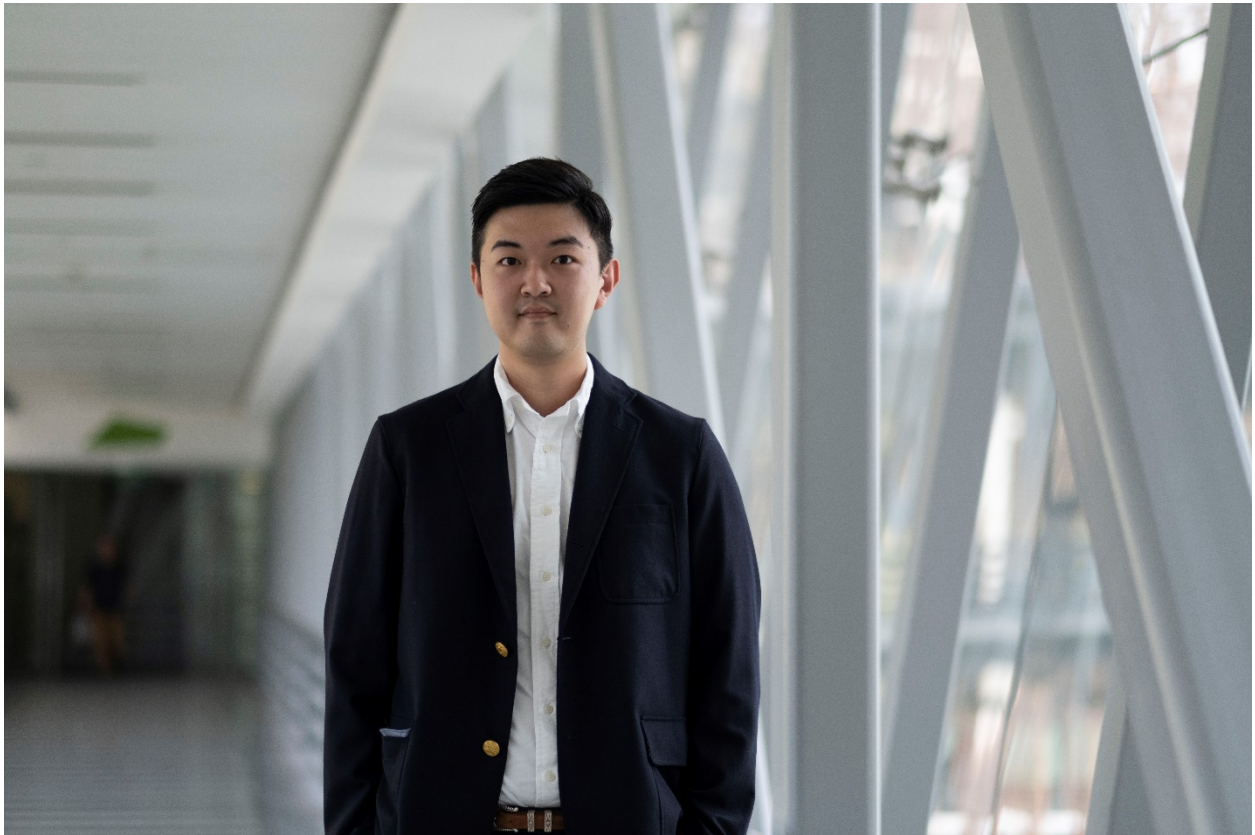# IMCB RESEARCHER AWARDED THE NRF CLASS OF 2023 FELLOWSHIP

06 Sep 2023

Dr. Yan Chuan, Principal Investigator, Cancer Therapy Resistance Modelling Laboratory

The National Research Foundation (NRF) Fellowship supports independent research on potential breakthrough projects led by early-career investigators. The NRF recently named 12 fellows in its Class of 2023 NRF Fellowship awards (15th NRFF). This was out of a total of 113 applications. Six of the 12 awardees were from the Agency for Science, Technology and Research (A*STAR). The Institute of Molecular and Cell Biology (IMCB) is proud to announce that one of the six recipients of this prestigious award is our **Principal Investigator, Yan Chuan**.

Yan Chuan's project entitled *"Precision oncology approaches for hepatocellular carcinoma"* focuses on developing combination therapies that target therapy-resistant tumour cells in liver cancer. Liver cancer is very prevalent in Singapore. The disease is asymptotic, which means majority of patients are diagnosed at advanced stages. Unfortunately, there is no effective therapies for these patients, and most of them eventually succumb to the disease. Yan Chuan's take on this devastating problem builds on two directions: 1) Understanding therapy-resistant subpopulation evolution at single cell resolution using cutting edge single cell transcriptomic sequencing; 2) Building superior immunodeficient zebrafish models that are "humanised", hence allowing engraftment of primary patient samples. Following completion of both goals, Yan Chuan will leverage on the superior single cell resolution imaging and high throughput capabilities of zebrafish to find combination therapies that can target therapy-resistant tumour cells. These effective combination therapies will be further preclinically validated in gold standard mice xenograft models for preclinical rationale. Yan Chuan will be actively engaging in collaborations with clinicians to translate his research to translationally useful findings.