

Research Theme: Cancer Immunotherapy
Research Project Title: Translational biomarker research to identify silent vulnerable patient at risk of major adverse cardiovascular events
Principal Investigator/Supervisor: Newman Sze
Co-supervisor/ Collaborator(s) (if any):
<p>Project Description</p> <p>Cardiovascular disease (CVD) diagnosis, risk stratification, and treatment have improved significantly since the landmark Framingham Heart Study first defined key risk factors 50 years ago. However, widespread use of indices such as the Framingham Risk Score (FRS) to guide patient management has not altered CVD status as the leading cause of mortality worldwide (still contributing to 1 in every 3 deaths in developed countries). This high burden of CVD persists due to the substantial amount of residual disease despite the use of anti-lipid, anti-hypertensive and anti-diabetic drugs for primary and secondary preventions. In addition, many patients who eventually suffer heart attack or stroke lack obvious premonitory symptoms and exhibit normal clinical risk factors. Consequently, there is an urgent clinical need to better identify vulnerable patients who will go on to suffer major adverse cardiovascular events (MACE) The underlying pathologies that trigger a MACE are the vulnerable atherosclerotic plaque that is prone to rupture, and vulnerable blood that clot easily in the circulatory system. Over the past years, we have identified some degenerative protein modifications (DPMs) in extracellular and plasma proteins in clinical samples from MACE patients. This project aims to translate the results from our basic research to clinical uses by developing diagnostic method for early prediction of MACE in silent vulnerable patients.</p>
<p align="center">Supervisor contact: Email: sksze@ntu.edu.sg</p> <p>If you have questions regarding this project, please email the Principal Investigator:</p>
<p align="center">SBS contact and how to apply: Associate Chair-Biological Sciences (Graduate Studies) :AC-SBS-GS@ntu.edu.sg Please apply at the following: http://admissions.ntu.edu.sg/graduate/R-Programs/R-WhenYouApply/Pages/R-ApplyOnline.aspx</p>