

Professor Jae-Ho Cheong

Professor Cheong practices as a surgeon-scientist, coming from a background in systems cancer biology, gastric cancer genomics and translational medicine. With more than 15 years clinical experience in treating gastric cancer patients, he is now developing molecular diagnostics which are clinically usable to identify distinct prognostic and predictive subgroups to personalise treatment to the specific TNM stage. Recently, Professor Cheong has launched a molecular diagnostic test for real world use to identify patient subgroups with distinct prognosis and responsiveness to standard chemotherapy in adjuvant setting (Lancet Oncology, in press; nProfiler for GC, Novomics).

The overarching goal of his research is to identify potential diagnostic and therapeutic targets and to develop clinically relevant prognostic or predictive markers as well as valid targets for novel therapeutics. To this end, he has been collaborating with a number of researchers in diverse disciplines such as cell biology, molecular biology, chemistry, bioinformatics, pathology and engineering. This trans – disciplinary approach utilises patient - derived resources to accurately model human cancer molecular pathophysiology to bridge the gap between pre-clinical studies and clinical practice. Currently, Professor Cheong and his colleagues have generated – 900 gastric cancer tissue multi-omics information which will serve a robust platform to achieve the goal of proposed research enterprise. In addition to clinical tumour repository, they have established- 40 fully molecularly characterised and clinically annotated patient-derived tumour xenograft (PDX) models. Based on these platforms, Professor Cheong develops novel cancer therapeutics specifically for therapy – refractory and stem – like subtype tumours.