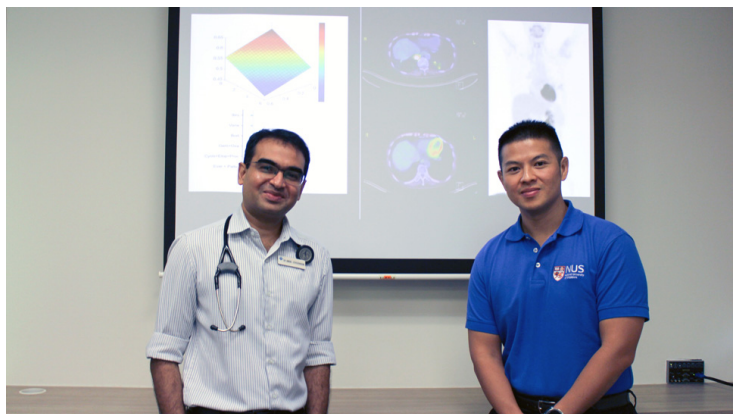


Singapore brings new hope for lymphoma patients

31 July 2020 | News

QPOP testing is currently only offered in the context of a clinical research study



An AI-driven digital medicine platform, called Quadratic Phenotypic Optimisation Platform (QPOP), developed by researchers from the [Cancer Science Institute of Singapore \(CSI Singapore\)](#) at NUS is helping doctors make better clinical decisions when treating cancer patients.

“QPOP customises a drug ‘cocktail’ for every patient. Using artificial intelligence, the tool ranks potential patient response to more than 500,000 drug combinations to identify the most effective drug combinations for a patient in less than one week. With just a small amount of blood or tumour sample from patients, QPOP derives potential drug combination effects by mapping the response that a smaller predetermined set of drug combinations had on the specific patient’s cancer cells. This enables doctors to make more informed decisions on possible treatment outcomes for patients,” said Associate Professor Edward Chow, who is the leader of the team that developed QPOP and Principal Investigator at CSI Singapore.

QPOP testing is currently only offered in the context of a clinical research study, conducted through the lymphoma teams at NCIS and National Cancer Centre Singapore (NCCS), enabled by a national collaborative grant on lymphoma.

The research team at CSI Singapore, NCIS and NCCS now hopes to raise funds to conduct a phase 2 clinical trial where approximately 60 patients with relapsed lymphoma will be randomised into two groups - QPOP-guided choices and physicians’ preference. Since the overall outcomes for refractory lymphoma on standard treatment are poor, the trial will help clinicians understand if using QPOP-defined treatment will help improve the survival and quality of life for these patients.

Image caption- Asst Prof Anand Jeyasekharan (left) and Assoc Prof Edward Chow (right) are working towards conducting a clinical trial to validate QPOP, an AI-driven digital medicine platform, for use in treating lymphoma patients