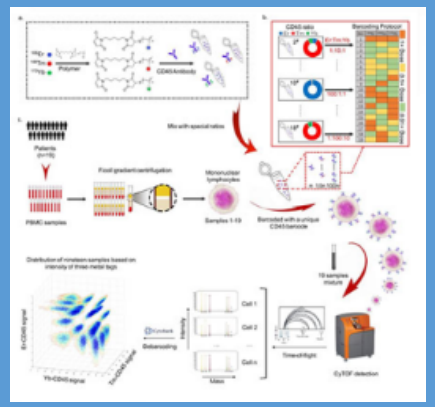
Probing tumor heterogeneity through single cell analysis of CTCs

Lim Chwee Teck
NUSS Professor

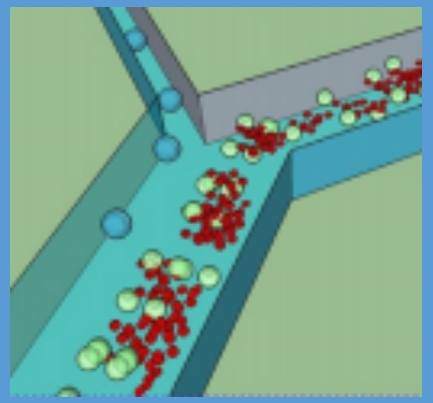
Prof Lim's research interests include development of microfluidic technologies for human disease diagnosis and precision medicine. He did numerous work on CTCs and developed a CTCs separation system which have already been approved by FDA.

CTC separation

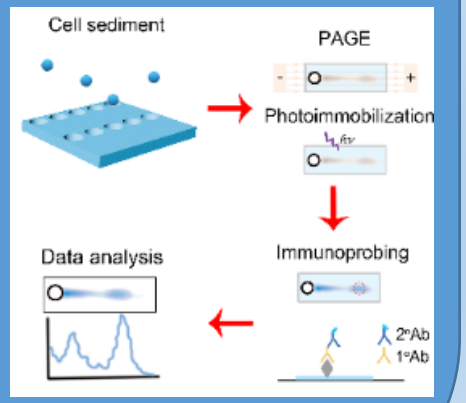
Representing molecular characteristics of primary tumor sites, circulating tumor cells (CTCs) examination is instrumental in investigating intratumor heterogeneity, which is a major obstacle to effective therapy and personalized medicine. The isolation and protein expression profiling of CTCs from peripheral blood facilitate the non-invasive real-time cancer diagnosis, monitoring and prognosis predicting. Combing CTCs separation with single cell analysis system will be a promising trend in CTCs analysis .



CyTOF



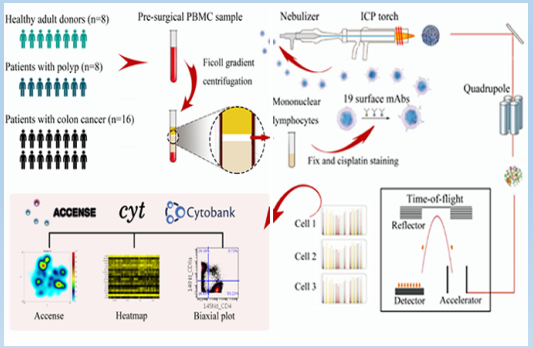
CTC separation



SCWB

Xianting Ding
SJTU Professor

Prof Ding`s research interests focus on single cell protein analysis with trace clinical specimens. The technique developed in his lab includes mass cytometry technique for single-cell analysis; tissue topology mass spectrometry; single cell western blot (SCWB).



CyTOF