

presents the seminar series in
Cancer Biology, Biotherapy and Nanomedicine

Discovery of clinically translatable biomarkers (early detection, prognosis and predictive) and therapeutic targets in colorectal and other gastrointestinal cancers

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Venue : YEUNG-P4701, Yeung Kin Man Academic Building

Abstract

Even after decades of research, CRC still remains the second leading cause of cancer-related deaths, and the available non-invasive population screening and early detection tests miss high-risk adenomas and early stage cancers to be able to replace the gold standard of colonoscopy-based screening. Furthermore, the current clinical guidelines are insufficient in identifying patients at high-risk, which is critical for clinical decision-making whether it is early or late stage cancer. More importantly, robust tissue-based predictive as well as non-invasive disease-monitoring markers are lacking in the neoadjuvant, adjuvant and palliative-care settings, with the exceptions of microsatellite instability and RAS mutations. I have worked extensively to address these important clinical issues and identified several tissue as well as plasma based multi-omic markers that I will present during my seminar.

About the Speaker

I am a cancer biologist with enormous interest in genetics, epigenetics and precision medicine. The focus of my research career has been to identify tissue and cell-free nucleic acid-based (cfNA) biomarkers for early detection, surveillance and prognosis of bladder, colorectal and other gastrointestinal cancers using multidimensional omics data. DNA methylation biomarkers from the urine of bladder cancer patients that we identified during my PhD are close to clinical translation. My major interest is to unravel clinically translatable liquid biopsy based early detection markers across various cancers as well as discover novel approaches to implement precision medicine in cancer patients.