

Suet Yi Leung

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Brief Bibliography

Professor Suet-yi Leung is the Associate Dean (Research), Li Ka Shing Faculty of Medicine at The University of Hong Kong. She is also the YW Kan Endowed Professor in Natural Sciences and Chair in Gastrointestinal Cancer Genetics and Genomics in the Department of Pathology. Her research interests are focused on the molecular genetics, epigenetics and genomics of gastric and colorectal cancers, and their applications in molecular classification and genetic diagnosis to facilitate cancer prevention and treatment. Using genomic technologies, including next generation sequencing, her group has identified many novel gastric cancer driver genes, including *ARID1A*, *RHOA* and *RNF43*, and defined the genomic and epigenomic landscapes of various molecular subtypes of gastric cancer. Her team also established and systematically characterized a large repertoire of organoids from patient gastric normal and cancer tissues, encompassing comprehensive molecular subtypes, thus provides a valuable resource for understanding both cancer biology and anti-cancer drugs that may facilitate the development of precision cancer therapy.

Her team has first described the heritable germline methylation of the *MSH2* gene promoter as a cause of Lynch Syndrome, and subsequently identified *EPCAM* deletion as the cause of *MSH2* methylation, the latter has become a standard genetic diagnosis test for Lynch Syndrome. Her team also uncovered the critical role of *BRAF* and *RNF43* in the serrated neoplasia pathway, provided critical molecular data to support the pathogenic role of *RNF43* germline mutation in Serrated Polyposis Syndrome families. The long term goal of her laboratory is to identify novel genes that are important for the causation of gastric and colorectal cancer, and to explore the use of some of these genes as markers for early detection, prognostication or drug targets.