

**Breast Cancer Cells Release miR-125b in Extracellular Vesicles to Activate Fibroblasts
in the Tumor Microenvironment**

Minh LE

**Assistant Professor, Principal Investigator, Department of Biomedical Science,
City University of Hong Kong**

Email: mle.bms@cityu.edu.hk

Cancer cells secrete extracellular vesicles (EVs) to facilitate their communication with many host cells in the tumor microenvironment. To identify cell types that spontaneously take up EVs from cancer cells, we generated breast cancer cell lines that secrete fluorescent EVs. We found that tumor EVs are taken up by fibroblasts most frequently in the tumor and at a metastatic site. In EVs derived from isogenic 4T1 and 4TO7 breast cancer cells, we identified miR-125b as the second most abundant miRNA. I will present our study demonstrating that miR-125b is delivered in tumor EVs to resident fibroblasts in the tumor microenvironment to develop them into cancer-associated fibroblasts.