

# EMT

## Brief Synopsis:

During metastasis, epithelial tumor cells dissociate from each other, disseminate into the systemic circulation, and then establish secondary tumors in distant sites. A developmental program termed Epithelial-Mesenchymal Transition (EMT) is implicated in promoting the dissemination of single carcinoma cells during metastasis. Our recent studies aim to understand how EMT is dynamically regulated in response to signals from the tumor microenvironment and from the intracellular machineries to impact EMT and tumor metastasis. Specifically, I will present a mechanotransduction pathway that senses and transmits mechanical cues from stiff matrix in the tumor microenvironment to promote EMT and invasion during tumor progression. I will also discuss how apical-basal polarity functions as a critical checkpoint of EMT to precisely control epithelial-mesenchymal plasticity during tumor metastasis.