

Department of Biological Sciences Faculty of Science

Tues, 4 Nov 2014 | 3pm | DBS Conference Room 1

Hosted by Professor R M Kini

Cancer Crosstalk:

Transfer of microRNAs between cancer cells confers metastatic ability



By Minh Le

Postdoctoral Research Fellow, The Lieberman Lab, Program in Cellular and Molecular Medicine, Boston Children's Hospital, Harvard Medical School, USA

Not all cancer cells in a tumor are capable of metastasizing. The miR-200 microRNA family is frequently enriched in the serum of patients with metastatic cancers, but the origin and function of circulating miR-200 microRNAs are poorly understood. Here, we epithelial metastatic demonstrated that breast cancer cells secrete miR-200 microRNAs in extracellular vesicles and transfer them to otherwise weakly metastatic cells either nearby or at distant sites and confer upon them the ability to colonize distant tissues. Thus, uptake of extracellular vesicles containing miR-200 can transfer metastatic capability