NUS National University of Singapore | Department of Anatomy
Yong Loo Lin School of Medicine

NUHS National University Health System

ORAL PQE

Function of DUSP9 and PTPMT1 in breast cancer

Dual specificity phosphatases (DUSPs) are a group of protein tyrosine phosphatases that dephosphorylate serine/threonine and tyrosine residues of protein kinases and may act both as oncogenes and tumour suppressors in breast cancer. Here we report the function of two DUSPs: dual specificity phosphatase 9 (DUSP9) and protein tyrosine phosphatase mitochondrion 1 (PTPMT1). Silencing of DUSP9, an extracellular-signal regulated kinase (ERK) specific phosphatase in breast cancer resulted in a decrease in breast cancer aggression by inhibiting cell motility. In contrast, PTPMT1 induces apoptosis in breast cancer cells and inhibits cell viability. Additionally, silencing PTPMT1 enhances breast cancer cell motility indicated by the increase in invasion and migration. Our results provide the basis for understanding the mechanisms underlying breast cancer aggression, apoptosis and cell viability.

Monday
17 June 2019
2.00pm – 3.00pm
Seminar Room, MD10
Level 2, Anatomy Museum

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