

5th Asia-Pacific Summit on **Cancer Therapy**

July 20-22, 2015 Brisbane, Australia

Differential regulation of p130Cas by miRNAs in breast cancer

Eun Kyung Lee¹ and Wook Kim²

¹Catholic University of Korea, South Korea

²Ajou University, South Korea

p130Cas regulates cell adhesion and migration by mediating tyrosine receptor kinase signaling. Tight regulation of p130Cas expression is critical for the maintenance of cell motility, survival and apoptosis in various cell types. Several studies reveal that transcriptional and post-translational control of p130Cas is important to maintain its expression and activity. To explore novel regulatory mechanisms for p130Cas expression, we investigated the effect of microRNAs on p130Cas level in human breast cancer cells. Here, we provide experimental evidences that miR-329 is a novel factor regulating p130Cas expression. miR-329 down-regulates cell migration and invasion thereby suppress tumor growth via down-regulating p130Cas. Ectopic expression of p130Cas restored the inhibitory effects of miR-329 in tumor progression. Interestingly, relative expression of miR-329 and p130Cas is inversely correlated between normal and breast cancers; miR-329 decreased, while p130Cas increased in breast cancers. Taken together, our results suggest that miR-329 is a novel factor regulating p130Cas expression and aberrant expression of p130Cas is responsible for tumor progression in breast cancers.

Biography

Eun Kyung Lee is an Assistant Professor in the Department of Biochemistry, College of Medicine at the Catholic University of Korea.

leeek@catholic.ac.kr

Notes: