

WORLD CANCER SUMMIT 2018

July 02-03, 2018 Bangkok, Thailand

Identify metastasis-associated lncRNA in triple-negative breast cancer

Kuo-Wang Tsai

Kaohsiung Veterans General Hospital, Taiwan

LncRNAs are noncoding transcripts that are >200 nucleotides in length, have recently emerged as important molecules in several cellular processes, including cancer metastasis. The objective of this study is to unravel the novel lncRNAs involved in the regulation of cell migration and invasion in TNBC, to elucidate the underlying mechanisms of lncRNA-regulated molecular signaling and to identify clinically relevant biomarkers and therapeutic targets. Our study revealed that several metastasis-related lncRNA candidates according to microarray data and The Cancer Genome Atlas (TCGA). Among them, a novel lncRNA, lncRNA420, is highly expressed in breast cancer as well as in other cancer types. Furthermore, high expression of lncRNA420 is significantly correlated with poor survival of breast cancer patients, especially for patients with TNBC subtype. Functional assay showed that depletion of lncRNA420 could suppress lung metastasis potential of MDA-MB-231 cells in a tail vein injection mouse model. Furthermore, our data also revealed that lncRNA420 knockdown could significantly suppress breast cancer cell growth via impairing cell cycle progression. Herein, we showed that lncRNA420 participating in TNBC metastasis, which may serve as a useful molecular biomarker for cancer diagnosis and therapeutic targets for patients with TNBC.

Biography

Kuo-Wang Tsai has completed his PhD from Graduate Institute of Life Sciences, National Defense Medical Center and Postdoctoral studies from Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan. Currently, he is a Research Fellow in Department of Medical Education and Research, Kaohsiung Veterans General Hospital. He has published more than 50 papers in reputed journals and has been serving as an Editorial Board Member of *repute*.

kwtsai6733@gmail.com

Notes: