

JOINT EVENT ON  
INTERNATIONAL CONFERENCE ON CANCER RESEARCH & DIAGNOSTICS  
&  
16<sup>TH</sup> ASIA PACIFIC BIOTECHNOLOGY CONGRESS

August 15-16, 2018 Singapore

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**Novel exosome proteins as potential biomarkers for early detection of lung cancer**

Lung cancers are often diagnosed at advanced stages with concomitant poor prognosis, making it the leading cause of cancer mortality worldwide. Herein, we aim to validate a panel of protein biomarkers identified from tumor cell-derived exosomes in liquid biopsies as diagnostic biomarkers for lung cancer. Biomarker candidates were identified by quantitative proteomics analyses. Verification and validation of exosomal candidates were performed by western blot and ELISA, respectively. The diagnostic performance for early detection of non-small-cell lung carcinoma was assessed using Receiver Operating Characteristic (ROC) curve analyses. Compared to current cancer biomarker, CEA, several novel exosome proteins were discovered to have greater diagnostic value in lung cancer. Importantly, these exosome proteins and their signatures demonstrated excellent diagnostic performance in the early detection of lung cancer. Hence, the promising results derived from our exosome biomarker studies warrant a large-scale clinical trial.

**Biography**

Lingzhi Wang is a Senior Research Scientist at Cancer Science Institute of Singapore and an Assistant Professor in the Department of Pharmacology of Yong Loo Lin School of Medicine, National University of Singapore (NUS). He has obtained his PhD in Pharmacology in 2008 and won PhD Graduate Research Excellence Award from American Association of Pharmaceutical Scientists (AAPS) Annual Meeting, USA. He has published more than 70 research papers. He also has been serving as an Editorial Board Member of several peer reviewed scientific publications.

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