

Joint Event on  
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**Expression of 14-3-3 $\gamma$  protein induces the migration and invasion of lung cancer cells**

14-3-3 $\gamma$  has been shown to be involved in the metastasis of lung cancer; however, its functional roles regarding an ability of tumor cell invasion are still unclear. In this study, the roles of 14-3-3 $\gamma$  in migration and invasion were investigated using NSCLC cells. The constructed 14-3-3 $\gamma$  expression vector was used to increase the expression level of 14-3-3 $\gamma$ . Expression levels of proteins were detected by western blotting. Cellular migration and invasion were analyzed using 2D/3D wound healing model and Transwell assay. The wound healing assay revealed that the closing rate of scratch wounds in invasion was significantly increased in 14-3-3 $\gamma$ -overexpressing cells compared with the non-transfected cells (33%, P=0.001 at 6 h and 30%, P=0.009 at 24 h) and the vector control cells (36%, P=0.001 at 6 h and 18%, P=0.015 at 24 h). Similarly, overexpression of 14-3-3 $\gamma$  resulted in a significant increase in migration by approximately 25% (P=0.048) and 32% (P=0.002) at 24 h compared with the non-transfected and the vector control cells, respectively. For Transwell assay, the result showed that the 14-3-3 $\gamma$ -overexpressing cells also led to a significant increase in the invasion and migration compared with the non-transfected cells by approximately 79% (P=0.002) and 131% (P=0.001), respectively. Our results suggested that overexpression of 14-3-3 $\gamma$  promotes the migration and invasion of NSCLC and it may provide new insight for treatment of NSCLC.

**Biography**

Pritsana Raungrut, received her PhD degree in Faculty of Medicine from Prince of Songkla University (PSU). According to her thesis, she is focused on lung cancer (i.e., in order to find predictive markers for detection, diagnosis, or prognosis for lung cancer). Major scope of her study focuses on mechanism of cancer progressions and management of cancer etc.

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