

## **RNAi-mediated Silencing of Nemo-like Kinase Inhibits Cell Proliferation in Human Bladder Carcinoma Cells**

**Introduction and Objective:** Deregulation of Wnt/ $\beta$ -catenin signaling is thought to play a critical role in carcinogenesis. The nemo-like kinase (NLK) is a key effector molecule in the noncanonical Wnt-signaling pathway.

**Materials and Methods:** Since NLK may be tumor suppressors as a negative regulator of Wnt pathway, we established RNA interference (RNAi) induced NLK gene silencing in human bladder carcinoma to evaluate the effects of NLK on cell growth and viability. The NLK silencing in two bladder cancer cell lines 5637 and T24 caused suppression of cell growth. Meanwhile, flow cytometry (FACS)

**Results:** Results indicated that NLK deletion also induced cell cycle arrest at G1 phase.

**Conclusions:** The present results suggest that silencing of NLK may have potential application in human bladder carcinoma treatment.