Abstract of Presentation

Presentation Title:

PROTEIN KINASE C MODULATES WNT SIGNALING IN COLON TUMORAL CELL LINES.

Abstract:

The colonic epithelium is a complex and continuously renewing tissue with a rapid and orderly turnover of cells. Wnt pathway is a key regulator of its homeostasis and is altered in a large proportion of colon cancers. Protein kinase C are a family of serine/threonine kinases which are also involved in colon tumor formation and progression. Although PKC has been implicated in the Wnt pathway, its molecular role is poorly understood.

Our laboratory has found that some PKC isoforms associate in vivo with the key Wnt canonical proteins APC, GSK-3β and β-catenin using cultured colon cell lines. In addition, using isozyme-specific pharmacological and genetical approaches, we have found that whereas the selective inhibition of PKCζ blocked in a dose-dependent manner the canonical Wnt pathway activation, the selective inhibition of PKCδ induced the opposite effect. Taken together, our results suggests that PKC isoforms play an essential role in the regulation of canonical Wnt pathway.