Cancer Science-2013

OMICS Group Conferences
Accelerating Scientific Discovery

3rd World Congress on
Cancer Science & Therapy

October 21-23, 2013 DoubleTree by Hilton Hotel San Francisco Airport, USA

Cell signaling and tissue dynamics of tumor initiation from suppressive epithelial environments.

Cheuk T. Leung

University of Minnesota, USA

Abstract

Mutant cell populations that contain oncogenic alterations have been observed in histologically normal tissues of different organs, and have been implicated as tumor precursors. The mechanisms by which emerging clones overcome homeostatic tissue environment to initiate neoplastic outgrowth remain unclear. Initial outgrowth that disrupts normal tissue organization represents one of the earliest milestones of tumor development. This seminar will discuss the use of elaborate molecular tools and organotypic models to investigate the oncogenic signals and epithelial dynamics that contribute to tumor initiation and early clonal selection. These studies have provided novel insights into the roles of Erk and Akt signaling, and cell-tissue dynamics in potentiating early epithelial tumor development. The implications of these results in early tumor detection and chemoprevention will also be discussed.

Biography

Dr. Leung obtained his Ph.D from the Johns Hopkins Univeristy and performed postdoctoral training at Harvard Medical School. He has expertise in utilizing molecular tools and organotypic systems to investigate the genetic and tissue architectural environments that underlie complex biological processes. His researches have been recognized by the Young Investigators Award from Johns Hopkins School of Medical and the Beginning Cancer Researcher Award from American Cancer Society. Dr. Leung recently started his laboratory at Univeristy of Minnesota. His laboratory focuses on studying complex interactions between oncogenic signaling and cell-tissue dynamics in epithelial tissue homeostasis, tumor initiation and tumor cell dormancy.