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ภาคผนวก

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ตำแหน่ง อาจารย์ ระดับ 7

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ความชำนาญ/ความสนใจพิเศษ drug metabolism and pharmacogenetics, cancer research

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งานวิจัยตีพิมพ์

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ข. การเผยแพร่ผลงานวิจัย

- นำเสนอผลงานในที่ประชุมวิชาการระดับชาติ แบบ poster presentation 1 ครั้ง

(การประชุมวิชาการประจำปี ครั้งที่ 32 สมาคมเภสัชวิทยาแห่งประเทศไทย 2552 เรื่อง Chemotherapy 2010: Discovery and Development ระหว่างวันที่ 25-26 มี.ค. 2553 ณ มหาวิทยาลัยธรรมศาสตร์ ศูนย์รังสิต)

- บทความ proceedings 1 เรื่อง

(Ornanong Tusskorn, Veerapol Kukongviriyapan, **Auemduan Prawan**, Upa Kukongviriyapan. PEITC inhibits cholangiocarcinoma via induction of mitochondrial dysfunction. *Thai J Pharmacol* 2010; 32(1): 76-81)

บทคัดย่อของบทความ proceedings เรื่อง PEITC Inhibits Cholangiocarcinoma via Induction of Mitochondrial Dysfunction

Phenethyl isothiocyanate (PEITC), a natural compound found abundantly in cruciferous and other vegetables, has been shown to possess cancer chemopreventive activity. The purpose of this investigation was to examine the cytotoxic effect of PEITC in cholangiocarcinoma cells (CCA). Cholangiocarcinoma cells, KKU-100 and human liver Chang cells were used for comparison in the study. Effects of PEITC on cell growth and induction of apoptosis was determined by fluorescent dye staining using acridine orange and ethidium bromide. Cultured cells were exposed to PEITC for 3, 12, 24 and 48 hours following assessment of cell viability and apoptotic cell death. PEITC can induce a large proportion of cells to undergo apoptosis in a dose-time dependent manner. The PEITC induced depletion of intracellular antioxidant GSH in the cell lines. Moreover, a rapid collapse of the mitochondrial transmembrane potential, as measured by JC-1 staining, was observed concurrently with an apparent apoptosis in both cells. Furthermore, Western blot analysis were used to examine the antioxidant and survival response related proteins. The results revealed that PEITC increased levels of Nrf2 and cyclin D1 in both cell lines, and Bax and Trx protein expression was up-regulated in KKU-100. The effect of PEITC on cell growth and apoptosis may contribute to cancer chemopreventive properties. In conclusion, our data lucidly evidence the chemopreventive merits of dietary phytochemical PEITC in suppression of cholangiocarcinoma

Keywords: Phenylethyl isothiocyanate; Cholangiocarcinoma; Apoptosis; Cytotoxicity