[PC1-7] [04/18/2003 (Fri) 09:30 - 12:30 / Hall P]

The mechanism of the anticancer effect of 2-hydroxycinnamaldehyde in HL-60

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2-Hydroxycinnamaldehyde is an active compound isolated from the Stem Bark of Cinnamomum cassia, a traditional oriental medicinal herb, which has been shown to inhibit tumor cell proliferation. In this study, we investigated the effects of 2-hydroxycinnamaldehyde on the cytotoxicity, induction of apoptosis and the putative pathways of its actions in human promyelocytic leukemia cells (HL-60). Using apoptosis analysis, we show that 2-hydoxycinnamaldehyde is a potent inducer of apoptosis and that it transduces the apoptotic signal via cytochrome c release to the cytosol. ROS production, mitochondrial alteration, and subsequent apoptotic cell death in 2-hydroxycinnamaldehyde treated cells were blocked by the antioxidant N-acetylcystein (NAC). Taken together, our data indicate that 2-hydroxycinnamaldehyde induces the ROS-mediated mitochondrial permeability transition and resultant cytochrome c release. This is the first report on the mechanism of the anticancer effect of 2-hydroxycinnamaldehyde.

[PC1-8] [04/18/2003 (Fri) 09:30 - 12:30 / Hall P]

Hepatoprotective effects and Mechanism of Flavonoids

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Primary cultured rat hepatocytes injured by carbon tetrachloride as a model to screen for hepatoprotective effect. Four flavonoid compounds showed anti-hepatotoxic effect by decrease GPT, LDH activity and MDA level. Also screen for hepatoprotective, anti-oxidative and anti-apoptosis effects of baicalin and baicalein on chang cell treated with t-BHP. Mesured radical detoxifying enzyme, GST and antioxidant enzyme SOD, Catalase activity, GSH level and Cellular glutathion peroxidase activity. And tested that Annexin V binding on chang cell treated with t-BHP for anti- apoptosis effect of baicalin and baicalein.
Flow cytometric analysis of mitochondrial transmembrane potential and Western blot analysis for the release of cytochrom c into cytosol cleavage of Caspase 9, 3 , 8 and Bid. Finaly tested in vivo effects of baicalein on t-BHP-induced Liver damage.

[PC1-9] [04/18/2003 (Fri) 09:30 - 12:30 / Hall P]

Anti-inflammatory action of soy isoflavonoid sophoricoside by inhibition on cyclooxygenase-2 and cytokines

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Polyphenolic compounds including flavonoids are wide spread in the plant kingdom, and