tumor cell metastasis. CK clearly inhibited both B16F10 melanoma cell adhesion to the extracellular matrix proteins as well as invasion through Matrigel-coated filter. In addition, CK significantly inhibited the proliferation of B16F10 melanoma cells on the plate in a dose-dependent manner. In vivo B16F10 melanoma experimental metastasis, CK showed remarkable inhibitory effects on the lung tumor colonization in a dose-dependent manner. These results demonstrate that anti-metastatic and anti-angiogenetic activity of CK resulted from blocking proliferation of the melanoma cells.

[PA4-19] [04/17/2003 (Thr) 14:00 - 17:00 / Hall P]

Genotoxicity Study of sophoricoside in bacterial and mammalian cells system

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Sophoricoside was isolated as the inhibitor of IL-5 bioactivity from *Sophora japonica* (Leguminosae). It has been reported to have an anti-inflammatory effect on rat paw edema model. To develope as an anti-allergic drug, genotoxicity of sophoricoside was investigated in bacterial and mammalian cell system such as Ames bacterial test and mouse lymphoma *tk* gene assay (MOLY). In Ames test, sophoricoside of 5,000 ~ 313 ㎍/plate concentrations was not shown significant mutagenic effect in Salmonella typhimurium TA98, TA100, TA1535 and TA1537 strains. Also in MOLY assay, sophoricoside of 5,000 ~ 313 ㎍/ml concentrations was not shown significant mutagenic effect in absence of S-9 metabolic activation system. However, the higher concentration of 5,000 and 2,500 ㎍/ml of sophoricoside induced the increased mutation frequency (MF) in the presence of S-9 metabolic activation system. From these results, no genotoxic effects of sophoricoside observed in bacterial systems whereas, genotoxic effects observed in mammalian cell systems. These results suggested that the metabolite(s) of sophoricoside can cause some genotoxic effects in mammalian cells.

[PA4-20] [04/17/2003 (Thr) 14:00 - 17:00 / Hall P]

Estrogenic activity of Pomegranate extract in MCF7-ERE cells

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Pomegranate, a small tree originating in Orient, belongs to Punicaceae family. The seeds contain an oil of which about 80% is rare trans 18 carbon fatty acid (punicic acid), and have highest botanical concentration of a sex steroid, estrone. Pharmacological properties of pomegranate extract have been studied, with anti-microbial, anti-parasitic, anti-viral, and anti-cancer effects.

We have examined the estrogenic activity of the pomegranate extracts using MCF-7-ERE cells. MCF-7-ERE cells, stably transfected with pERE-Luc were treated various amount of pomegranate extract and after overnight treatments, luciferase activity were measured. Estradiol (E2) dose dependently induced luciferase activity in this cell and maximal response is obtained at 100pM E2.
82-A, 80-A extract of pomegranate showed stronger estrogenic activity than that of 100pM E2.