completely restores allergen-induced eosinophilia. Thus, IL-5 is critically involved in eosinophilia-associated allergic inflammation. To develope novel IL-5 inhibitor with sophoricoside as the lead compound, about 40 kinds of synthetic isoflavone analogs have been prepared. Among them, 5-cyclohexylmethoxy-3-(4-hydroxyphenyl)chromen-4-one and 7-cyclohexylmethoxy-3-(4-hydroxyphenyl)chromen-4-one showed potent inhibitory effect on IL-5 bioactivity with IC50 values of 5-6 uM, comparable with that of sophoricoside. Pharmacophore of the isoflavone analogs to inhibit IL-5 bioactivity seems to require I) planarity between A and C rings, II) existence of phenolic hydroxyl group at 4' position of B ring, and III) introduction of cyclohexylmethoxy group at 5 or 7 position of A ring, which may act as a bulky group for interacting with hydrophobic pocket in putative target.

[PC1-5] [04/18/2003 (Fri) 09:30 - 12:30 / Hall P]

Antioxidant activity of flavonoid, myricetin and (+)-catechin on B16F10 murine melanoma cell in oxidative stress with hydrogen peroxide.

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There are now increasing evidences that free radicals and reactive oxygen species are involved in a variety of pathological events. Flavonoids, a group of polypenolic compounds, are widespread in the human food supply. This study was carried out to investigate the antioxidant activity of these compounds, myriceitn and (+)-catechin on B16F10,murine melanoma cell line in oxidative stress. Oxidative stress was induced by exposure to hydrogen peroxide .In order to investigate the efficacy of antioxidant activity, we measured cell viability, antioxidant enzyme activity[SOD(superoxide dismutase), CAT(catalase), GPX(glutathione peroxidase activity)] and intracellular reactive oxygen intermediate.
The experimental evidence, we show that these flavonoids are increased antioxidant activity level.

[PC1-6] [04/18/2003 (Fri) 09:30 - 12:30 / Hall P]

Characterization of Acharan Sulfate Binding Proteins in Blood Plasma

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Glycosaminolycans (GAGs), such as heparin and heparan sulfate, are highly charged molecules and are of great biological importance. Protein-GAGs interactions play prominent roles in cell-cell recognition and cell growth. Acharan sulfate (AS), isolated from the giant African snail *Achatina fulica*, is a novel member of glycosaminoglycan families. It showed antitumor activity by the inhibition of angiogenesis. In order to find any plasma proteins interacting with AS, it was immobilized to agarose matrix by EDC/diaminodiproplyamine coupling method. The immobilized gel packed in a column was exposed to human plasma. The column was eluted with a stepwise salt gradient (0, 0.3, 0.4, 0.5, 1.0, and 2.0 M NaCl in tris buffer). Two proteins, ceruloplasmin and proapolipopotein, were characterized by SDS-PAGE and MALDI-TOF MS. We speculate that an interaction of two proteins with AS may be important in exhibiting diverse biological activities in the body.