exerts antioxidative activity on 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical. In the course of a continuous study on the active principles of this alga, a new phlorotannin, named eckstolonol (2), was isolated along with the four known phlorotannins i.e. phloroglucinol (1), eckol (3), phlorofucofuroeckol A (4), and dieckol (5), from the EtOAc soluble fraction, which exhibited strong antioxidant activity in the DPPH model system, by silica gel and Sephadex LH-20 column chromatography. These compounds were individually evaluated for scavenging activities on DPPH radical.

[PD2-29] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Anti-Oxidative compounds from leaves of Hovenia dulcis

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Fruits of Hovenia dulcis T. (Rhamnaceae) was called ' jiguja ' in oriental medicine which has been used for diuresis, remove of hangover and leaves has been used for detoxified the alcohol.

In order to investigate the efficacy of antioxidative activity from leaves of Hovenia dulcis, the activity guided fraction and isolation of physiologically active substance were performed. Its 20%, 40%, 60%, 80%, 100% MeOH, H2O, Acetone fractions were examined antioxidative activity by DPPH method and TBARS assay. It was revealed that 40% MeOH fractions has significant antioxidative activity.
Eight phenolic compounds were isolated from 20% ~ 80% MeOH fraction.
To investigate the antioxidative activities of each compound, we were measured radical scavenging activity with DPPH method and anti-lipid peroxidative efficacy on human LDL with TBARS assay.

[PD2-30] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Anti inflammatory Activity of Flavonoids from the Seeds of *Astragalus sinicus* Linne

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The seeds of *Astragalus sinicus* grows in Korea have been used for oriental traditional medicine as the remedies for inflammation. Eight flavonoids were isolated from the Seeds of Astragalus sinicus and studied its anti-inflammatory activity. Some flavonoid compounds showed significant nitrogen monoxide(NO) production inhibitory activity in IFN-γ, LPS stimulated RAW 264.7 cell. There compounds also showed significant antioxidative activity in DPPH assay. These results suggest that the flavonoids which were isolated from seeds of *Astragalus sinicus* might be developed as a anti-inflammatory agent.

[PD2-31] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Induction of methylnissolin in the adventitious root of *Astragalus* by methyl jasmonate

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In order to induce production of methylnissolin, sterol biosyntheis inhibitor, in the adventitious root of *Astragalus membranaceus* the effect of methyl jasmonate(MeJ), a growth regulator of plant, was investigated. After treatment of MeJ (0μM, 10μM,100μM) to the adventitious root which was harvested in the time interval of 0, 7, 14, 21, 28days and the fresh weight, dry weight and the contents of methylnissolin was determined. The growth of the root was significantly decreased by the treatment of MeJ. Whereas MeJ strongly enhanced production of methylnissolin in a does-dependent manner. At the day of 14 after elicitation, production of methylnissolin was higher than untreated hairy root. There were no significant differences between elicitation period(on days 0 and 7) on enhancing of prodution of methylnissolin. On the other hand, production of methylnissolin was slightly promoted by the treatment of 10μM of MeJ. Even the treatment of 100μM of MeJ decreased production of methylnissolin.

[PD2-32] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Prenylated Flavonoids, Inhibitors of Diacylglycerol Acyltransferase by the root of *Sophora flavescens*

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Diacylglycerol acyltransferase (DGAT) is a microsomal enzyme that plays a central role in the metabolism of cellular glycerolipid. Recently, the generation of DGAT-deficient mice has provided a better understanding of triglyceride synthesis and its relationship to obesity. Therefore, DGAT is an attractive target for treatments of triglyceride metabolism disorders, such as obesity or hypertriglyceridemia. In the course of our search for DGAT inhibitors from natural sources, the methanol extract of the root of *Sophora flavescens* was found to significantly inhibit DGAT prepared from the rat liver. Bioactivity-directed fractionation of ethyl acetate extract led to the isolation of two prenylated flavonoids, kurarinone (1) and kuraridine (2). They inhibited DGAT activity dose-dependently with IC_{50} values of 10.9μM (1), 9.8μM (2) in vitro and kurarinone also showed inhibition of triacylglycerol formation in intact Raji cells

[PD2-33] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Tyrosinase Inhibitory Activity of the EtOH Extracts and Their Fractions of Crude Drugs

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Melanin biosynthesis inhibitors are useful not only for the materials used in cosmetics as skin-whitening agents but also for the remedy of hyperpigmentation. In order to find the new skin-whitening compounds from the natural products, screening of tyrosinase inhibitory activity *in vitro* has been carried out. The EtOH extracts of two hundred crude drugs were performed at the concentration of 500 μg/ml. Thirty-four samples have been shown the promising tyrosinase inhibitory effect. Of these seven ethanolic extracts had been partitioned using various organic solvents. Several *n*-hexane- and/or water-soluble fractions showed the significant effect on the inhibition of tyrosinase.