them,exhibited strong NF-κB activity in transfectant human HaCat cells as well as raw 264.7 cells.

[PD3-7] [10/18/2002 (Fri) 13:30 - 16:30 / Hall C]

Triterpene Components from the Leaves of Acanthopanax sessiliflorus .

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Acanthopanax species (Arelaceae) are widely distributed in Asia, which used as tonic and sedative as well as a drug with ginseng-like activities from olden time. There are many reports on the studies of these plants, but there seems no reported about components from the leaves of Acanthopanax sessiliflorus, which is indigenous plant to Korea. We have now characterized three triterpenoid compounds from MeOH extract of the leaves of this plant. Based on the physicochemical and spectroscopic data, their structures were identified as chiisanogenin, chiisanoside and 22-alpha-hydroxychiisanoside.

[PD3-8] [10/18/2002 (Fri) 13:30 - 16:30 / Hall C]

Regulation of the absorption of dietary sugar by α-glucosidase inhibitors from herbal medicines

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The inhibitory activity of several crude drugs on α-glucosidase, which are the key enzyme for carbohydrate digestion and the prevention of diabetic complications, was investigated. This experiment was designed to examine the hypoglycaemic effect of four water extracts crude drugs. We found two drugs, Mori radicis Cortex and Cudraniae radicis Cortex in several crude drugs remarkably inhibited α-glucosidase. Two crude drugs were examined in streptozotocin induced high blood glucose mice. Oral administration of Mori radicis Cortex and Cudraniae radicis Cortex lowered the blood glucose level in the high blood glucose mice. High blood glucose was induced in mice by Cudraniae radicis Cortex intraperitoneal injections of steptozotocin (STZ, 150 mg/kg). Mori radicis Cortex and Cudraniae radicis Cortex strongly showed inhibitory activity by 36.4 and 21.9% in mice loaded with starch. In the case of the maltose load test, Mori radicis Cortex and Cudraniae radicis Cortex showed inhibitory activity by 19.5 and 6.1%. We used acarbose for positive standard. We compared with acarbose and starch groups but also compared with acarbose and maltose groups. When compared with acarbose and starch groups, Mori radicis Cortex was 1.2 times higher than acarbose but Cudraniae radicis Cortex was lower than acarbose. When compared with acarbose and maltose groups, Mori radicis Cortex was about 7 times higher than acarbose and Cudraniae radicis Cortex was about 2 times higher than acarbose.

[PD3-9] [10/18/2002 (Fri) 13:30 - 16:30 / Hall C]

Effect of Ethyl Acetate Extract from Caesalpinia sappan L. on Melanogenesis in Melan-a cells

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Melanin is a main pigment found in skin, hair and eyes, and tyrosinase plays an important role in the process of melanin polymer biosynthesis.
Caesalpinia sappan L.(C. sappan) has been commonly used in Oriental folk medicines to promote blood circulation and as analgesic as well as remedy for thrombosis. This present study was designed to investigate the effect of ethyl acetate extract from C. sappan on melanogenesis in Melan-a cells. The cells showed a dose-dependent inhibition in their proliferation without apoptosis after treatment with ethyl acetate extracts. Therefore, the growth retardation by the extract may be due to the cell arrest or cell differentiation. The melanin content and

tyrosinase activity were increased in low concentration, whereas they decreased in high concentration. In conclusion, it was observed that ethyl acetate extact of C. sappan regulates melanization of cells dependent on its concentrations.

[PD3-10] [10/18/2002 (Fri) 13:30 - 16:30 / Hall C]

Inhibitory effects of the medicinal plant extract on tyrosinase and elastase, and free radical scavenging effects

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One of the important functions of skin is protection from harmful environments. There has been many studies for keeping skin healthy from wrinkling and pigmenting. Skin wrinkle and pigmentation could be caused by the disruption of connective tissue, free radicals and ultraviolet irradiation.
In this study, the extracts obtained from 25 kinds of medicinal plants were screened. All the extracts examined were obtained by using 70% (v/v) ethanol at 60°C. It has been found that there were two medicinal plants which have positive effects matching with the purpose of this study.
The extract of *Ephedra sinica stapf* has an inhibitory effect on tyrosinase (IC_{50}=83.7μg/ml), an inhibitory effect on elastase (IC_{50}=690μg/ml), and free radical scavenging effect (IC_{50}=29.6μg/ml). The extract of *Betula platyphylla Var.* has an inhibitory effect on elastase (IC_{50}=498.1μg/ml), and free radical scavenging effect(IC_{50}=9 μg/ml).
The extracts were dried by using an evaporator at 65°C and dispersed into water, and then fractionated with chloroform, ethylacetate, and n-butanol subsequently. The fractions extracted by ethylacetate separately from above two plants were showed positive effects. The ethylacetate fractions were separated further to trace the effective compounds by using a silica column and TLC.
The aim of this study is that the single compounds having an inhibitory effect on tyrosinase, elastase, and free radical scavenging effect are identified among the compounds in the extracts, and that the examination of the compounds are studied the most similar conditions like the skin of human.

[PD3-11] [10/18/2002 (Fri) 13:30 - 16:30 / Hall C]

Cytotoxic and antimicrobial deterpene from Anisotome lyallii

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Cytotoxic activity against the P388 cell line was seen in a crude extract of Anisotome lyallii. A bioactivity guided isolation led to the isolation of a deterpene, which displayed strong cytotoxic activity against the P388 cell line (IC50 2.3 μg/ml), as well as antimicrobial activity against Bacillus subtilis. The structure of deterpene 1 was elucidated by spectroscopic methods.

[PD3-12] [10/18/2002 (Fri) 13:30 - 16:30 / Hall C]

The effects of natural medicinal herb extracts on a lipoprotein lipase activity

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