enteritis, diarrhea, alcoholism and cut wounds. In the current work, activity guided isolation of the butanol fraction of the Alnus japonica bark led to the isolation of catechin-7-O-β-D-apiofuranoside. Anti-inflammatory activity was determined with carrageenan-induced paw edema in mice as an acute inflammation, complete Freund's adjuvant-induced arthritis as a chronic inflammation. Carrageenan-induced paw edema in mice was significantly inhibited at 0.5, 1, 2, and 3 hr after carrageenan injection by administration of the flavonoid glycoside at the dose of 150mg/kg. The structure of the catechin-7-O-β-D-apiofuranoside that has anti-inflammatory activity was established by spectroscopic methods, including 2D-NMR.

[PD2-9] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Discrimination between Acanthopanax Cortex and Periplocae Cortex

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Acanthopanax cortex (Acanthopanax sessiliflorum, Araliaceae, KP VIII), an important herbal drug, has been used as tonic, antistress and immuno-enhancing drugs in Korea. And Peiplocae cortex(Periploca sepium, Asclepiadaceae, CP 2000) has been used as cardiotonic, anti-inflammatory , and sedative effect in china. These are called "Namogapi" of Acanthopanax cortex and "Bukogapi" of Periplocae cortex in Chinese herbal market. These herbal medicines are sometimes circulated as the same herbal medicine "Ogapi". It's mistaken clearly. So we showed that these herbal medicines were discriminated by organic senses, microscopic identification, and spectroscopic evidences of HPTLC[silica gel, $CHCl_3$ MeOH H_2O(70:30:4), Pet Et_2O EtOAc HAc(20:3:0.5)], HPLC[C_{18}, AcCN 1 %H_3PO_4(15:85), PDA], and GC/FID/Mass[PEG, Oven Temp 150℃/3min->200℃/3min (rate 10℃/min), He].

[PD2-10] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Antioxidant and inhibitor of matrix metalloproteinase-1 expression from leaves of Zostera marina L.

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Apigenin-7-O-β-$_D$-glucoside, chrysoeriol, and luteolin were isolated from the aqueous ethanolic extract of Zostera marina L. leaves as the scavengers of reactive oxygen species (ROS) with the SC_{50} values of 0.18 mM, 0.68 mM, and 0.18 mM against 1,1-diphenyl-2-picrylhydrazyl (DPPH) and 0.04 mM, 0.03 mM, and 0.01 mM against superoxide radicals in the xanthine/xanthine oxidase system, respectively. The luteolin suppressed the expression of matrix metalloproteinase-1 (MMP-1) up to 44% at 4.0 μM. Also, it inhibited the production of interleukin 6 (IL-6), which were known as cytokines of MMP-1.

[PD2-11] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Terpene Constituents from Aster spathulifolius

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Aster species has been used in traditional chinese medicine for treatment of a bruies and asthma. On reviewing the literatures of this species, monoterpene glycosides, diterpenoids, triterpene glycosides, cyclic pentapeptides, oligopeptides and flavonoids [1] were isolated and some pharmacological activites were investigated [2]. In continuation of our search for bioative components from Korean medicinal plants, we have examined Aster spathulifolius, collected from Jeju island on August 2001. The MeOH extract of the aerial parts of this source was

subjected to successive solvent partitioning to give n-hexane (32g), methylene chloride (20g), ethyl acetate (8g) and BuOH (30g) soluble portions. The repeated column chromatographic separation of the n-hexane layer resulted in the isolation of eight terpenoids. Their structures have been established by spectroscopic means. The isolation and characterization of the compounds will be discussed in this poster. 1) Imann, F., Jakupovic, J., Hashemi-Nejad, M., Huneck, S., Clerodane diterpenoids from Aster alpinus. Phytochemistry, 24(3), 608-610 (1985) 2) Cheng, D., Shao, Y., Terpenoid glycosides from the roots of Aster tataricus. Phytochemistry, 35(1), 173-176 (1994)

[PD2-12] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Hepatoprotective flavonol glycosides from the aerial parts of Rodgersia podophylla

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Activity-guided separation for the aerial parts of Rodgersia podophylla A. Gray gave a new acylated flavonoid, quercetin 3-O-α-L-(5²-acetyl)-arabinofuranoside (1), together with six known flavonoids (2-7). Their hepatoprotective activities were determined by using the primary cultures of rat hepatocytes injured by H_2O_2. Quercetin 3-O-α-L-(3²-acetyl)-arabinofuranoside (3), kaempferol 3-O-α-L-rhamnopyranoside (5) and quercetin 3-O-α-L-rhamnopyranoside (6) exhibited hepatoprotective activities comparable to silybin at the concentration of 50 mM (45.7, 50.8 and 57.3 %, respectively), and the new flavonoid 1 showed hepatoprotective activity at the concentration of 100 mM (50.1 %).

[PD2-13] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Nitric Oxide and PGE_2 production Inhibitory Activities of Phenolic Compounds from Sophora japonica Linne

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Phytochemical examination of Sophorae Fructus yielded six phenolic compounds. The structures were elucidated as genistein(1), genistin(2) and genistein 7-O-α-L-rhamnopyranoside(3) by phytochemical and spectral evidences. The other compounds(4, 5, 6) are understudied by 2D-NMR. Nitric Oxide and PGE_2 production inhibitory activities in INF-γ, LPS stimulated RAW 264.7 cell were examined. Compound 2 and 4 showed significant nitrogen monoxide(NO) production inhibitory activity in IFN-γ, LPS stimulated RAW 264.7 cell. These compounds also showed significant PGE_2 production inhibitory activity. These results suggest that the phenolic compounds which were isolated from Sophora japonica might be developed as a anti-inflammatory agent.

[PD2-14] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Platelet Anti-aggregating and Anti-oxidative Activities of 12-O-(4'-O-methyl-galloyl)-bergenin, a Novel Compound Isolated from Crassula cv. "Himaturi"

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Platelets play critical roles in both hemostasis and thrombosis. It was reported that platelet aggregation is associated with an increase in superoxide production and can be inhibited by hydroxyl radical scavengers. In the course of our search for the anti-platelet, anti-coagulant and/or anti-oxidative components from plants, the MeOH extract of Crassula cv. "Himaturi" (Crassulaceae) was observed to have both anti-aggregatory and anti-coagulant effects. A novel compound, 12-O-(4'-O-methyl-galloyl)-bergenin (1), was isolated as an active component from the EtOAC soluble fraction. The structure of the compound was determined by IR, MS, ^1H- and ^{13}C-NMR spectral data including HMBC and COSY etc. Compound 1 showed 100~140 folds higher potency on arachidonic acid induced platelet aggregation (IC_{50} ; 0.64μM) than acetylsalicylic acid. It also showed strong antioxidative