

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- $\beta$ -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- $\beta$ -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 *Periploca* 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 *Periploca* cortex (*Periploca sepium*, Asclepiadaceae, CP 2000) has been used as cardiotoxic, anti-inflammatory, and sedative effect in china. These are called "Namogapi" of *Acanthopanax* cortex and "Bukogapi" of *Periploca* 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<sub>3</sub> MeOH H<sub>2</sub>O(70:30:4), Pet Et<sub>2</sub>O EtOAc HAc(20:3:0.5)], HPLC[C<sub>18</sub>, AcCN 1% H<sub>3</sub>PO<sub>4</sub>(15:85), PDA], and GC/FID/Mass[PEG, Oven Temp 150°C/3min->200°C/3min (rate 10°C/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- $\beta$ -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<sub>50</sub> 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  $\mu$ M. 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 bruises and asthma. On reviewing the literatures of this species, monoterpene glycosides, diterpenoids, triterpene glycosides, cyclic pentapeptides, oligopeptides and flavonoids <sup>1)</sup> were isolated and some pharmacological activities were investigated <sup>2)</sup>. In continuation of our search for bioactive 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