Three pseudoguaianolide type sesquiterpenes, bigelovin, 2,3-dihydroaromaticin, and ergolide were isolated as inhibitory constituents against inducible nitric oxide synthase (iNOS) from the flowers of *Inula britannica*. Bigelovin exhibited a highly potent inhibitory activity on iNOS in murine macrophage RAW 264.7 cells with an IC_{50} value of 0.14 μg/ml, which is about 4 times more potent than the known selective inhibitors of iNOS, L-N^6-(1-Iminoethyl)lysine (IC_{50} = 0.65 μg/ml). 2,3-Dihydroaromaticin and ergolide also exhibited potent inhibitory activity on iNOS with IC_{50} values of 0.26 and 0.21 μg/ml, respectively.

[PD2-56] [10/19/2001 (Fri) 14:00 - 17:00 / Hall D]

Studies on antifungal activities of essential oil components in Agastache rugosa

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The antifungal activities of essential oil components in *Agastache rugosa* were investigated by micro broth dilution method and disc diffusion method. As the result, the total oil fraction separated by simultaneous steam distillation-extraction(SDE) from the plants exhibited significant inhibiting activities against *Aspergillus niger, A. flavus, Trichoderma viride, Candida albicans, C. utilis, C. tropicalis, Cryptococcus neoformans, Trichosporon mucoides, Trichophyton tonsurans* and *Geotrichum capitatum*.

[PD2-57] [10/19/2001 (Fri) 14:00 - 17:00 / Hall D]

Antitumor activity of Diarylheptanoids from Barks of Alnus japonica on mouse melanoma cell line.

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The cytotoxic activity of several diarylheptanoids which were isolated from barks of Alnus japonica on mouse melanoma cell line were evaluated by 3-(4,5-dimethylthiazole-2-yl)-2,5-diphenyl-2H-tetrazalium bromide (MTT) colorimetric method. 1,7-bis-(3,4-dihydroxyphenyl)-5-hydroxyheptane, oregonin, hirsutanolol, hirsutenone were shown significant cytotoxic activity at 10-30㎍/㎖ concentration. Especially, aglycones and monoglycosides of diarylheptanoid showed potent cytotoxic activities on mouse melanoma cell line but diglycosides of diarylheptanoids did not show cytotoxicity.

[PD2-58] [10/19/2001 (Fri) 14:00 - 17:00 / Hall D]

Sesquiterpenes with Hepatoprotective Activity from Torilidis Fructus on Tacrine-induced Cytotoxicity in Hep G2 Cells

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Bioassay-guided fractionation of the EtOH extract of Torilidis Fructus furnished two hepatoprotective *sesquiterpenes, torilin* (1) *and torilolone* (2), together with a new 1-hydroxy-torilin (3). Compounds 1 and 2 showed the hepatoprotective effects on tacrine-induced cytotoxicity in human liver-derived Hep G2 cells. The EC_{50} values of compounds 1 and 2 were 18.6 and 3.9 μM, respectively. Silybin as a positive control showed the EC_{50} value with 69.0 μM.

[PD2-59] [10/19/2001 (Fri) 14:00 - 17:00 / Hall D]

The anti-inflammatory activity of Kalopanax pictus bark extract (III). Anti-inflammatory effects of alkaline hydrolysate from BuOH fraction

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We have reported the active components of *Kalopanax pictus* (KP) extract were monodesmoside saponins from EtOAc fraction. The BuOH fraction which is rich in bidesmoside saponins can afford monodesmoside saponins by alkaline hydrolysis. In the present study we had performed alkaline hydrolysis of BuOH fraction to search what we could obtain more potent anti-inflammatory compounds. The hydrolysates of BuOH fraction was partitioned to EtOAc and BuOH fractions, of which pharmacological assays were performed. The results showed that oral treatment of EtOAc and BuOH fractions of the hydrolysate showed significant inhibition of vascular permeability at a dose of 500 mg/kg in mice and carrageenan-induced paw edema at a dose of 300 mg/kg in rats. The column chromatography of the EtOAc fraction which may be rich in monodesmoside saponins afforded compounds 1, 3 and 4. These compounds were identified as kalopanaxsaponin A, kalopanaxsaponin A methyl ester and kalopanaxsaponin I, respectively. All the compounds showed significant inhibition of vascular permeability at the doses of 60 mg/kg, but only compound 3 exhibited anti-carrageenan activity at a dose of 50 mg/kg.

[PD2-60] [10/19/2001 (Fri) 14:00 - 17:00 / Hall D]

Antihepatotoxic activity and phytochemical study on Rosa davurica

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Bromobenzene is a xenobiotic liver toxin that is known to produce centrilobular hepatic necrosis through the formation of reactive epoxides as the toxic intermediates. The methanol extract of the underground parts of Rosa davurica reduced the activity of aniline hydroxylase that increased by bromobenzene, while did not affect the activities of aminopyrin N-demethylase and glutathione S-transferase in bromobenzene-induced rats. The extract recovered the activity of epoxide hydrolase decreased by bromobenzene. These results showed that the extract from the underground parts of R. davurica has *antihepatotoxic activity by reduction of the activity of aniline hydroxylase*, an epoxide-producing enzyme along with enhancement of the activity of epoxide hydrolase, an epoxide-removing enzyme in bromobenzene-intoxicated rats. From title plant, gallic acid, methyl gallate, protocatechuic acid, *quercetin and rosamultin were isolated and characterized by spectral data*