

Cinnamomi Ramulus, Scutellariae Radix, exhibited antihyperlipidemic effects. Therefore, some herbal prescriptions which is formulated above those herbal medicines have been evaluated for antihyperlipidemic effects on HMG-CoA reductase and DPPH free radical scavenging effect in vitro, and on experimental hyperlipidemic rats and mice induced by Triton WR 1339 and hypercholesterol diet respectively in vivo. Among them, Gamigwarluhaebaekwhanggum-Tang formulated on the bases of Gwarluhaebaekbaekju-Tang, Gwarluhaebaekbanha-Tang listed in the traditional medicinal references showed more significant antilipidemic effects than the other prescriptions.

[PD2-46] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Effect of the stem extracts from *Acanthopanax senticosus* on hyperlipidemia in rats

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The effects of the water extracts from *Acanthopanax senticosus* self grown in Baik-Du mountain area on lipid metabolism were evaluated in hyperlipidemic rats induced by lipid rich diet and poloxamer 407. *A. senticosus* extract, when administered orally for 3 consecutive days in hyperlipidemic rats induced by poloxamer 407 (1 ml of 30%) was found to cause a significant decrease in plasma cholesterol and triglyceride concentrations. The water extracts, when treated orally for 5 consecutive days also showed a significant inhibition of serum total cholesterol and triglyceride in rats treated with lipid rich diet (15% cholesterol). HDL-cholesterol, however, was increased significantly. These results suggested that the mode of hypolipidemic activities caused by *A. senticosus* might be in part due to the inhibition of HMG-CoA reductase and/or induction of lipoproteinlipase activities.

[PD2-47] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Biological activities of the herb of *Chrysanthemum zawadskii*

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The herb of *Chrysanthemum zawadskii*(Compositae), which is called Gu-Jul-Cho, has been used in traditional medicine for pneumonia, bronchitis, cough, common cold, pharyngitis, bladder-related disorders, women's diseases, gastroenteric disorders, and hypertension, etc. In this study various biological activities including acute toxic, antipyretic, antiinflammatory, analgesic, and antihepatotoxic properties, were screened in both mouse and rat using linarin, main compound of *Chrysanthemum zawadskii*, and its MeOH extract. In this study, the lethal dose of linarin was over 2,000 mg/kg. Linarin and its MeOH extract exerted antifebrile activity and antiinflammatory effect similar to Aspirin in antipyretic test using Brewers yeast and antiinflammatory test using arachidonic acid and *o*-tetradecanoylphorbol 13-acetate, respectively, and they showed superior to Silymarin in antihepatotoxic test using CCl₄.

[PD2-48] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Effects of *Angelica keiskei* on the Hepatic Bromobenzene-Metabolizing Enzyme System in Rats and Its Bioactive Component, Cynaroside

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The effects of *Angelica keiskei* Koidz. on the hepatic lipid peroxide and the activities of free radical generating and scavenging enzymes were investigated in bromobenzene-induced rats. The level of lipid peroxide elevated by bromobenzene was significantly reduced by the methanol extract from the aerial parts of *A. keiskei* and its component, cynaroside. Epoxide hydrolase activity was decreased significantly by the treatment of bromobenzene. The enzyme activity was restored in liver of rats given the methanol extract and cynaroside. However, the extract and compound did not influence the activities of other enzymes. These results showed that *A. keiskei* has antihepatotoxic activity in bromobenzene-intoxicated rats. We suggest that under our experimental conditions cynaroside, one of the bioactive constituents might prevent the hepatotoxicity by enhancement of the activity of epoxide hydrolase, an epoxide-removing enzyme.

[PD2-49] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Diterpene Constituents from *Aster oharai*

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Aster species has been used in traditional chinese medicine for treatment of a bruise and asthma. On reviewing the literatures of this species, monoterpene glycosides, diterpenoids, triterpene glycosides, cyclic pentapeptides, oligopeptides and flavonoids¹) were isolated and some pharmacological activities were investigated²). In continuation of our search for bioactive components from Korean medicinal plants, *Aster oharai* (Compositae) was studied. This plant was collected at Ullung Island and extracted with MeOH and fractionated using solvents (n-hexane, methylene chloride, ethyl acetate and BuOH). The repeated column chromatographic separation of the n-hexane layer resulted in the isolation of eight diterpenoids. Their structures have been established by spectroscopic means. The determination of the structures 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)

[PD2-50] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Aromatic Amines of *Bombycis corpus* 101A

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Bombycis corpus is killed silkworm larvae by inoculation of the fungi, *Beauveria bassiana* and the traditional medicine to treat paralysis, headache, epilepsy and tuberculosis¹). The sample used in this study was *Bombycis corpus* 101A inoculated by *Beauveria bassiana* 101A, which was developed in National Institute Agricultural Science and Technology. We previously reported the isolation of two cytotoxic steroids²) and two cytotoxic cyclodepsipeptides³) from this sample. Our