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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 activites 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

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[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, Beauberia bassiana and the traditional medicine to treat paralysis, headache, epilepsy and tuberculosis1). The sample used in this study was Bombycis corpus 101A inoculated by Beauberia bassiana 101A, which was developed in National Institute Agricultural Science and Technology. We previously reported the isolation of two cytotoxic steroids2) and two cytotoxic cyclodepsipetides3) from this sample. Our

continuing investigations for the bioacive constitutuents of this sample resulted in the isolation and the characterization of six aromatic amines. Isolated compounds were screened cytotoxic activity against cultured human tumor cell lines, A549 (non small cell lung adenocarcinoma), SK-OV-3 (ovarian), SK-MEL-2 (skin melanoma), XF498 (CNS) and HCT15 (colon) in vitro.

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[PD2-51] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Phytochemical Constituents of Erechtites hieracifolia L.

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In the course of our research for bioactive components from Korean medicinal plant, Erechtites hieracifolia was studied. Two senecio alkaloids1), seven syringyl alcohol derivatives2) and essential oil constituents3) were reported from this plant. Eerechtites hieracifolia was collected in the neighborhood of Sung Kyun Kwan university, Suwon and extraced with MeOH. The repeated column chromatographic separation of the extract resulted in the isolation of seven compounds (1-7). Their structures have been established by spectroscopic means to be 6-hydroxy-2,6-dimethyl-hepta-2,4-dienal(1) , 3,7-dimethyl-octa-3,5-diene-1,2,7-triol(2) , 3-hydroxy-5,6-epoxy-β-ionone(3) , 3-hydroxy-5,6-epoxy-β-iononol(4) , 3-oxo-a-ionyl-O-β-D-glucopyranoside(5) , eugenyl glucopyranoside(6) , 2-hydroxyeugenyl glucopyranoside(7).

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[PD2-52] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Five Novel Neuroprotective Triterpene Esters of Ulmus davidiana var. japonica

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Investigation of the constituents of the stem and root barks of *Ulmus davidiana* var. *japonica* resulted in the isolation of five new triterpene esters named ulmicin A - E (1-5). Their structure were determined as 3β, 11α, 15α-trihydroxylup-20(29)-ene-11-(3'-methoxy-4'-hydroxybenzoyl ester) (1), 3β, 11α, 15α-trihydroxylup-20(29)-ene-11-(4'-hydroxybenzoyl ester) (2), 3β, 11α, 15 α-trihydroxylup-20(29)-ene-11-(3'-methoxy-4'-hydroxybenzoyl)-15-(4'-hydroxybenzoyl ester) (3), 3β, 11α, 15α-trihydroxy-lup-20(29)-ene-11, 15-di(3'-methoxy-4'-hydroxybenzoyl ester) (4) and 3β, 11α, 15α-trihydroxylup-20(29)-ene-11-(3'-methoxy-4'-hydroxybenzoyl)-15-(benzoyl ester) (5) using several spectroscopic techniques. All the five compounds showed significant neuroprotective activities against glutamate-induced neurotoxicity in primary cultures of rat cortica cells.