In the course of search for hepatoprotective constituents from medicinal plants, each methanol extract of Hedyotis diffusa Willd. and Gardenia jasminoides J. Ellis. showed significant hepatoprotective activity using the carbon tetrachloride (CCl4) or galactosamine (GalN)-injured primary cultures of rat hepatocytes as screening systems. Six phenylpropanoids from Hedyotis diffusa and seven phenyl propanoids including three novel lignans from Gardenia jasminoides were isolated as hepatoprotective components by the repetitive column chromatography on silica gel, Sephadex LH 20, MCI and HP 20 gel and further purification using HPLC.

[PD2-42] [ 10/19/2001 (Fri) 14:00 - 17:00 / Hall D ]

## Torilin from Torilis japonica, as a new class inhibitor of testosterone-5a-reductase

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The methanolic extract of Torilis japonica showed potent 5a-reductase inhibitory activity in vitro. Bioactivity-guided fractionation of the methanolic extract of the fruits followed by repeated silica gel chromatography led to the isolation of active principle and the structure was identified as torilin with spectroscopic data. IC50 value of torilin was lower than that of finasteride.

[PD2-43] [ 10/19/2001 (Fri) 14:00 - 17:00 / Hall D ]

## Screening of Mushrooms for antioxidative activity

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This study was carried out to investigate the antioxidative activities of mushrooms for purpose of development of novel antioxidant from natural products.
In order to search for antioxidants, MeOH extracts from about 40 kinds of mushrooms were investigated The DPPH radical scavenging activity and lipid peroxidation inhibitory activity of each extracts were measured. Inonotus gibba, Fomes fomentarius, cultivated Phellinus linteus showed potent antioxidative effects.

[PD2-44] [ 10/19/2001 (Fri) 14:00 - 17:00 / Hall D ]

## New Quinolone Alkaloid with Antioxidant Activity from the Aleurone Layer of Anthocyanin-Pigmented Rice

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The anthocyanin-pigmented rice(*Oryza sativa* cv. *Heugjinmi*) having dark purple-colored grains, is broadly known as an enriched rice for taste and health improvements. Cyanidin-3-O-$\beta$-*D*-glucoside having oxygen radical absorbing capacity, is most abundant in anthocyanin-pigmented rice grain.
As a part of our study on the bioactive components of the aleurone layer of pigmented rice grain, a new

quinolone alkaloid, 4-carbomethoxy-6-hydroxy-2-quinolone(1), showing a moderate antioxidative activity in a 1,1-diphenyl-2-picrylhydrazyl free-radical scavenging assay, was isolated from 0.5% HCl in ethylalcohol soluble fraction($IC_{50}$ = 28.9㎍/ml) by activity-guided fractionation method. The structure was determined on the basis of physical and spectroscopic evidences.

[PD2-45] [ 10/19/2001 (Fri) 14:00 - 17:00 / Hall D ]

## Isolation of Lignans from the Roots of Acanthopanax chiisanensis having Inhibitory Activity on Prostaglandin E2 Production

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The chloroform fraction from the roots of *Acanthopanax chiisanensis* exhibited a significant inhibition of TPA-induced $PGE_2$ production in rat peritoneal macrophages. Five lignans were isolated from the chloroform fraction and their structures were elucidated as l-sesamin, helioxanthin, savinin, taiwanin C and cis-dibenzylbutyrolactone. Among the lignans tested, taiwanin C showed the most potent inhibitory activity on $PGE_2$ production with a relative order of potency, taiwanin C ≫ cis-dibenzylbutyrolactone > savinin = helioxanthin. l-sesamin showed no inhibitory activity at 30 μM.

[PD2-46] [ 10/19/2001 (Fri) 14:00 - 17:00 / Hall D ]

## Monoamine Oxidase Inhibitory Component from the Fruits of Evodia officinalis

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MAO plays an important role in the metabolism of monoamines in the central nervous system and its inhibitors are expected to be useful in the therapy of psychosis, depression, schizophrenia, and so on. Up to now, many inhibitory compounds toward it have been isolated from natural substances or synthesized for development of medicine. To investigate the potential antidepressant activity, we had screened medicinal plants to search for MAO inhibitory compounds. By the screening results, we discovered that the MeOH extract of *Evodia officinalis* showed high inhibition against the MAO. According to the activity-guided fractionation, a MAO inhibitory compound was isolated from $CH_2Cl_2$ fraction by Silica gel column chromatography and Sepadex LH-20 chromatography. The compound was identified as 1-methyl-2-undecyl-4(1H)-quinolone. The compound showed selective inhibition of MAO-B with $IC_{50}$ value of 15.27 μM. It represented competitive mode at 0.02 ㎍/㎖ and 0.1 ㎍/㎖.

[PD2-47] [ 10/19/2001 (Fri) 14:00 - 17:00 / Hall D ]

## Inhibitors of 5α-Reductase from the Roots of Angelica koreana