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In the course of screening for hepatoprotective activity from Korean medicinal plants, the dichloromethane fraction of Rhei Rhizoma was found to have a promising activity *in vitro*. From the dichloromethane fraction, three anthraquinone derivatives were isolated (compounds **1-3**). The structures of **1** and **2** are identified as chrysophanol and emodin, respectively, by comparisons of spectral data with those of literature. The structure elucidation of **3** is in progress. Of these, emodin showed the significant hepatoprotective effect on tacrine-induced cytotoxicity in Hep G2 cells with EC_{50} value of 19.4 μg/ml. Silymarin used as a positive control, exhibited an EC_{50} value of 38 μg/ml. Emodin was also significantly reduced the activities of GOT released from tacrine-intoxicated hepatocyte. From these results, emodin is a good hepatoprotective compound against tacrine-induced cytotoxicity.

[PD2-25] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

Secoiridoid glycoside with free radical scavenging activity of the leaves of Syringa dilatata

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Activity-guided fractionation of the EtOAc and MeOH extract of the leaves of *Syringa dilatata* NAKAI furnished one free radical scavenger, secoiridoid glucoside oleuropein (**3**), together with secoiridoid glycoside, ligstroside (**1**) and iridoid glycoside, syringopicroside (**2**). Compound **1** interacted with the stable free radical, 1,1-diphenyl-2-picrylhydrazyl (DPPH), and showed an IC_{50} value with 53.8 μM. L-Ascorbic acid as a positive control showed the IC_{50} value with 480 μM.

[PD2-26] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

Isolation of inhibitory components on tyrosinase activity from the radix of Glycyrrhiza glabra

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Tyrosinase is a key enzyme in the process of melanin polymer biosynthesis in the melanosome of melanocyte. Therefore, the enzyme inhibitors have been of great concern as cosmetics to have skin-whitening effects on the local hyperpigmentation.
We have been screening the tyrosinase inhibitors from natural resources by the mushroom tyrosinase assay method for several years.
As a part of these research, we isolated eight active compounds from the ethyl acetate soluble part of MeOH extract of the root of *Glycyrrhiza glabra* by the activity guided fractionation monitoring the inhibitory effect on tyrosinase activity. The chemical structures of these compounds, including isoflavonoids, charcone and their derivatives were identified on the basis of analysis of spectral data and chemical reactions. Among the isolated compounds, isoliquilitigenin 2'-O-methyl ether showed the most potent inhibitory effect on the mushroom tyrosinase activity in vitro.