suggest that KML-C is a novel lectin related to cytotoxicity of Korean mistletoe, and its cytotoxic activity against tumor cells is due to apoptosis mediated by Ca2+/Mg2+-dependent endonucleases.

[PD2-21] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

A novel flavonol lyxoside of Orostachys japonicus herb

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A novel flavonol lyxoside was isolated from the aerial part of *Orostachys japonicus* (Crassulaceae). Its structure was determined as gossypetin 8-O-α-D-lyxopyranoside using several spectral data and chemical method. Lyxoside of flavonoid was isolated for the first time from the nature.

[PD2-22] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

Isolation of biologically active principles from the fruits of Acanthopanax sessiliflorum

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In the course of the evaluation of biologically active principles from the fruits of Acanthopanax sessiliflorum, seven constituents were isolated from various fractions by repeated column chromatography.Their chemical structures were elucidated as a mixture of b-sitosterol and stigmasterol(1), 6,7-dimethoxycoumarin(2), sesamin(3), hyperin(4), 3,5-dihydroxybenzoic acid(5), 3-hydroxy-12-ursen-28-oic acid(6) and inositol(7) on the basis of physico-chemical and spectral analysis. Among them, compound 2, 4, 5, 7 are first isolated from this plant part.

[PD2-23] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

Cytotoxic Polyacetylenes from the Marine Sponge Petrosia sp.

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Five new polyacetylenic alcohols (1-5) have been isolated as cytotoxic principles from the marine sponge *Petrosia* sp. These long chain polyacetylenic alcohols were composed of 46-48 carbons. Their structures have been established using combined spectroscopic and mass spectrometric methods and the absolute configuration was determined by the modified Mosher's method. These polyacetylenes have been tested for the cytotoxicity against a number of human cancer cell lines and DNA replication inhibitory effect. The isolation, structure elucidation, and biological activities will be presented.

[PD2-24] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

Hepatoprotective effect of emodin isolated from Rhei Rhizoma

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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.