Antitumor constituents from the sclerotium of Poria cocos

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The bioactivity-guided fractionation of an active methylene chloride extract of the sclerotium of Poria cocos led to the isolation of compounds 1-5.These compounds were tested in the human colon carcinoma and human breast carcinoma cell lines, compounds 3, 4, and 5 exhibited IC50 values of 10.8, 15.4, and 5.1 μg/ml against human colon carcinoma cell line. In addition, compounds 3, 4 and 5 showed moderate activities as inhibitors of Topoisomerase I and all compounds were inactive in the Topoisomerase II inhibition.

[PD2-7] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Preventive Agents against Sepsis and New Phenylpropanoid Glucosides from the Fruits of Illicium verum

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Abstract: The bioassay-guided fractionation of preventive agents against lethality due to septic shock from the fruits of Illicium verum lead to the isolation of two known racemic mixtures of phenylpropanoids (1 and 2), along with two known phenylpropanoid glucosides (3 and 5) and two new phenylpropanoid glucosides (4 and 6). Their chemical structures were elucidated on the basis of spectroscopic studies. Among them, 1 exhibited the highest survival rate in dose-dependent manner (100 % with a dose of 10 mg/kg against 40 % for the control experiment) and showed reduction of plasma alanine aminotransferase (ALT) value on the in vivo assay model of septic shock induced by tumor necrosis factor (TNF)-α.

[PD2-8] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Lignans from fruits of Schizandra chinensis

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Schizandra chinensis known as OMIJA belongs to Schizandraceae family, and is being used in the formulation of traditional medicine. Various column chromatographies with various solvent systems were used to isolate its compounds. To identify compounds isolated, instrumental analysis methods such as NMR and MS were employed.
From fruits of Schizandra chinensis, five lignans were isolated and identified as followed : Gomisin N (1), Wuweizisu C (2), Gomisin L1 (3), (+)-deoxyschizandrin (4) and Gomisin J (5),

respectively, on the basis of spectroscopic data. In addition, treatment of PC12 cells with Wuweizisu C (2) decreased dopamine content in a dose-dependent manner (39.8 % inhibition at 50 μg/ml for 24 hr).

[PD2-9] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Chemical constituents from the root of Dystaenia takeshimana (Nak.) Kitagawa

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Abstract : The Dystaenia takeshimana (Nak.) Kitagawa is distributed in Ulreung island and it is an endemic species in korea. The MeOH extract from the root of D. takeshimana (Nak.) Kitagawa shows a good activity in anti-inflammatory assay (sPLA2ΠA inhibition assay, COX-2 inhibition assay, 5-LO inhibition assay). Nine compounds were isolated and their chemical structures were identified as β-sitosterol (1), psoralen (2), 8-methoxypsoralen (3), scopoletin (4), umbelliferone (5), apigenin (6), luteolin (7), β-sitosteryl-3-O-β-D-glucopyranoside (8), mixture of β-sitosteryl-3-O-β-D-glucopyranoside, stigmasteryl-3-O-β-D-glucopyranoside, campesteryl-3-O-β-D-glucopyranoside (9) by physicochemical and spectrometric methods.

[PD2-10] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Isolation of flavonoids from Rhus verniciflua STOKES

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Rhus verniciflua STOKES (RVS) belongs to Anacardiaceae and grows Korea, China and Japan, distributed in the northeastern Asia. Rhus verniciflua STOKES has been used for anthelmintic medicine, stomachache, emmenagogue and constipation in oriental medicine. From the EtOAc fraction of 70% MeOH extracts, flavonoids were isolated by column chromatography using ODS, Sephadex LH-20 and silica gel. The structure of these compounds were identified on the ^{1}H-NMR, ^{13}C-NMR and FAB/MS spectroscopic methods.

[PD2-11] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Flavonoids from the Seeds of *Astragalus sinicus* Linne

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The Seeds of *Astragalus sinicus*(Leguminosae) is used for the treatment of excretion of urine, circulation of blood and the throat inflammation in Korean traditional medicine. Eight flavonoids were isolated from 80% Acetone extracts. The structure were elucidated as Quercetin 3-O-β-D-Xylopyranosyl-(1→2)-β-D-galactopyranoside,
ampelopsin and myricetin by phytochemical and spectral evidences. The other compounds are understudied by 2D-NMR.