To clarify the botanical orgin of "Ha Go Cho", the anatomical characteristics of Prunella vulgaris L. var. lilacina Nakai and Thesium chinese Turcz. were studied. As a result, it was clarified that "Ha Go Cho" from Korea was the herba of spica of Prunella vulgaris var. lilacina, and some was the herba of Thesium chinese.

[PD2-50] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Dibenzylbutyrolactone lignans from Torreya nucifera Protect Cultured Rat Cortical Neurons from Glutamate-Induced Excitotoxicity

Jang YP°, Kim SR, Jung WJ, Lee JH, Kim YC

College of Pharmacy, Seoul National University

In the course of our search for neruoprotective compounds against glutamate-induced toxicity from natural sources, a methanolic extract from the barks of *Torreya nucifera* (Taxaceae) exhibited significant neuroprotectivity.
Activity-guided fractionation and further separation using several chromatographic techniques resulted in the isolation of three dibenzylbutyrolactone lignans. By several spectroscopic methods, the structures of isolated lignans were identified to 2-4"-hydroxy-3"-methoxybenzyl-3-3',4'-dimethoxybenzylbutyrolactone (arctigenin), 2-4"-hydroxy-3"-methoxybenzyl-3-3',4',5'-trimethoxybenzylbutyrolactone (traxillagenin) and 2-4"-hydroxy-3"-methoxybenzyl-3-4'-hydroxy-3', 5'-dimethoxybenzyl butyrolactone, respectively.
These lignans had significant neuroprotective activity at concentrations ranging from 0.1 μM to 10.0 μM on glutamate-induced excitotoxicity in primary cultures of rat cortical cells.

[PD2-51] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Phenolic Compounds of Phyllanthus ussuriensis

DMN Wang0, WK Whang

Dept. of Pharmacy, Chung-ang Univ.

The herbaceous species of subgenus Phyllathus are the most widely used medicinal plants in this genus.
For the phytochemical studies Phyllanthus ussuriensis (Euphorbiaceae) has been reported on anti hepatitis viral effect.
From the aqueous fraction of methanolic extract, one flavonoid(quercetin-3-0-rutinoside), two phenolic acid(gallic acid, methyl gallate), and two ellagitannin(corilarin, geraniin) were isolated through fractionation and repeated column chromatography using XAD-4, ODS gel, sephadex LH-20.
The structures of these compounds were determinated on the basis of IR, FAB-Mass, EI-Mass, 1H-NMR and 13C-NMR spectral data.

[PD2-52] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Leucomentin-5 and -6, Two New Leucomentin derivatives from Paxillus panuoides

Yun BS°, Lee IK, Yoo ID

Antibiotics Research Lab., Korea research Institute of Bioscience and Biotechnology

Peroxidative disintegration of cells and organellar membranes by free radicals has been implicated in various pathological processes and especially involved in the pathgenesis of diseases such as myocardial and cerebral ischemia, atherosclerosis, diabetes, rheumatoid arthritis, and cacer-initiation, and aging process. Thus free radical scarvengers have the potential as protective agents against these diseases. In our continuing investigation for biologically active novel constituents, especially free radical scarvengers, from basidiomycetes, we have isolated two new leucomentin analogues, leucomentin-5, and -6 from the methanolic extract of fruit body of *Paxillus panuoides*. Leucomentin-5, and -6 were purified through solvent partition, silica gel and sephadex LH-20 column chromatographies and reserve-phase HPLC. Their structer were assigned as new *p*-terphenyl compounds on the basis of spectroscopic analysis. Leucomentin-5, and -6 showed strong lipid peroxidation inhibitory activities with IC_{50} values of 0.11 and 0.06 mg/ml, respectively.Leucomentin-6 was about twenty times as active as vitamin E (IC_{50} 1.5 mg/ml) used as a control

[PD3-1] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Studies on the Standardization of Korean Herbal Pharmacopeia

Riu R°, Kim HK, Baik WS, Kim KH, Lee SY, Song MJ, Seo TW

Korea Drug Test Laboratory

The efficiency of crude drugs cannot be demonstrated by just one component or special constituents, so it must be controlled comprehensively by several components such as total norms, description, identification, purity, ash, acid-insoluble ash, extracts, volatile oil and assay. In 1998, it was carried out that substantial evaluation of 16 crude drugs. As the second study we carried out specification of 51 crude drugs which are domestic and imported ones, compared analysis with the standard values of Japan and China.
The result of this study showed that it is required that amendment of standards of 26 crude drugs : Chrysanthemi flos, Arctii semen, Asteris radix, Osterici koreani radix, Angelicae decurisivae radix, Alpiniae officinari rhizoma, Cinnamomi ramulus, Pruni nakaii semen, Sanguisorbae radix, Codonopsis pilosulae radix, Psoraleae semen, Aconiti tuber, Clematidis radix, Euryales semen, Agastachis herba, Raphani semen, Viticis fructus, Scirpi rhizoma, Ligustri fructus, Olibanum, Cistanchis herba, Uncariae ramulus et uncus, Aurantii fructus, Kochiae fructus, Kalopanacis cortex and Ulmi cortex. We hope that this study will be contributed to successful quality control of crude drug, which is widely used through the establishment of proper specification.

[PD3-2] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Antraquinones from Hedyotis diffusa

KIM SK°, KIM JS, RYU SY

Korea Research Institute of Chemical Technology

Antraquinones are potently bioactive compounds characterized as anticancer agents. Hedyotis diffusa Willd is one of several species of the genus Hedyotis (Rubiaceae) which are growing throughout China and Korea and it has been used in chinese medicine as useful drug for some tumours.
From this whole plant, we reported recently two novel furocoumarins and two coumarin derivatives. To continue our search for new constituents from this plant, an methanolic extract of this plant was investigated, using SRB bioassay to direct the fractionation. This work has resulted in the isolation and structure elucidation of three antraquinones. This is the first report of the occurrence of these compounds from H.diffusa.