Poster Presentations – Field D2. Pharmacognosy

[PD2-1] [ 10/17/2002 (Thr) 09:30 - 12:30 / Hall C ]

Relationship Between Flavonoid Structure and Inhibition of Farnesyl Protein Transferase

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Flavonoids are a diverse group of phytochemicals that are produced by various plants in high quantities. Dietary flavonoids in edible plants can be further subdivided into several structural groups. The large number of compounds arises from various combinations of multiple hydroxyl and methoxyl groups substituting the basic flavonoid skeleton. The chemopreventive activity of flavonoids is dependent on their structural features. The studies of structure–FPTase inhibitory activity indicated that the number, position and substitution of hydroxyl groups of the A and B rings, and saturation of the C2–C3 bond are important factors affecting flavonoid inhibition on FPTase.

[PD2-2] [ 10/17/2002 (Thr) 09:30 - 12:30 / Hall C ]

Discrimination of Cnidium Rhizome using PCR-mediated RFLP

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Cnidium Rhizome is a frequently prescribed herbal medicine in Korea, Japan as well as China, which has been successfully used in these countries for the treatment of diseases related to gynecology, blood circulation and dental troubles in the name of 川芎. And it is circulated as the same Chinese character, which is 川芎, although original plants are different as Cnidium officinale in pharmacopoeia of Korea or Japan and Liguisticum chuanxiong Hort. in that of China. Furthermore, other plants such as Conioselinum kamtschaticum Ruprecht, Angelica polymorpha and Liguisticum chuanxiong var. officinale have been alternated or substituted for Cnidium Rhizome as folk medicines in Korea.

Recently a lot of herbal medicines are imported from China and it is very difficult to distinguish a Cnidium officinale Makino, which is prescribed as original plants of Cnidium Rhizome in Korean Pharmacopoeia from others by organic or physicochemical experiments. In this report, PCR-mediated RFLP method using ITS primers and restriction enzymes such as Hae III, Nla IV, Apo I, Eco RV, Sma I and Mbo II was given a trial to identify origin of these herbal medicines. The ITS regions of nuclear ribosomal DNA were analyzed to determine original plants and to design a molecular identification method for the herbal medicine in Korea, Japan and China.

[PD2-3] [ 10/17/2002 (Thr) 09:30 - 12:30 / Hall C ]

Ginsenosides Content of The Manufactured Ginseng Radices Extracts

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The ginsenosides content of ginseng radices extracts were investigated in the Food Code and the Shibata
methods. Crude saponins and each ginsenosides content of the manufactured ginseng radix alba extracts were revealed to be higher than those of the manufactured ginseng radix rubra extracts. A large amount of a ginseng radix rubra specific component (ginsenoside Rg3) was shown in the manufactured ginseng radix rubra extracts. Also, a large amount of ginsenoside Rg3 was shown in the manufactured ginseng radix alba extracts.

[PD2-4] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C ]

On the Contents of Alkaloids in the Cho O by Processing Methods

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Mesaconitine and hyapoconitine were isolated from Cho O and identified by the spectroscopic methods. The contents of alkaloid (mesaconitine, aconitine and hyapoconitine) in the Cho O and its processed products were determined by high performance liquid chromatography. Processed 1 and 2 methods reduced the contents of alkaloid than those of processed 3 and commercially processed Aconiti Tuber powder. The contents of aconitine and hyapoconitine in MeOH extract by 10 min irradiation processing and mesaconitine by 5 min were comparable to those of commercialized Aconiti Tuber Powder.

[PD2-5] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C ]

Five compounds from leaves of Hovenia dulcis T.

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Fruits of Hovenia dulcis T. (Rhamnaceae) was called 'jiguja' in oriental medicine which has been used for diuresis, remove of hangover and leaves has been used for detoxified the alcohol. From the MeOH Extraction, five compounds were isolated by column chromatography and elucidated as quercetin, quercetin-3-O-ramnose, quercetin-3-O-gal(6′→1)ra, quercetin-3-O-glc(6′→1)glc. and kaemferol through spectroscopic methods.

[PD2-6] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C ]

Three Cytotoxic compounds isolated from the seeds of Pharbitis nil

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Pharbitis nil Choisy (convolvulaceae) is an annual vine plant and grows at the wayside of Korea, Japan, China and India. The seeds of blue or red Pharbitis nil Choisy, Pharbitidis Semen, is black or red-brown. This seeds have been used as a purgative. From a preliminary experiment, Pharbitidis Semen exhibited anti-cancer activity. MeOH extract of this seeds was subsequently fractionated into four parts : methylene chloride, ethylacetate, n-butanol and water fractions. Ethylacetate and n-butanol fractions showed cytotoxicity against HT–29 and HepG2 cell lines and DNA Topoisomerase I and II inhibitory activity. Chromatographic separation of the ethylacetate fraction has yielded three compounds. Their structure were elucidated by chemical and spectral evidences.