#### Flavonoids from Herb of Smilax china

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For the investigation of medicinal resources in Smilax, species, the aerial parts of Smilax, china (Liliaceae) were used and the studies of constituents in this plant were carried out. The Smilax species have been used in treating scrofular, goat, frambesia.

In this study the constituents of herb of Smilax. china were carried out. The MeOH extract of the plant was partitioned sucessively with CHCl3, dis. H2O, 20%MeOH, 40%MeOH, 60%MeOH, 100% MeOH. From the fractions obtained, 3 apigenin glycosides were isolated by column chromatography with Diaion, Sephadex LH-20, MCl gel, ODS gel.

In the aqueous fraction and 60%MeOH fraction of MeOH extract, apigenin glycosides were isolated. The structures of isolated compounds were identified apigenin glucoside and apigenin galactoside.

[PD2-54] [ 10/20/2000 (Fri) 11:30 - 12:30 / [Hall B] ]

# Discrimination of <I>Cervidae</I> Antlers from <I>Rangifer</I> Antlers Based on the Sequences of Mitochondrial Cytochrome b Gene

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In order to develop the discriminative method of *Cervidae* antlers from *Rangifer* antlers, PCR-RFLP (polymerase chain reaction-restriction fragment length polymorphism) technique has been employed in the range of mitochondrial cytochrome b genes. When digested the amplified PCR products with *Hae*III and *Hpa*II, *Cervidae* antlers showed quite different PCR-RFLP patterns from *Rangifer* antlers. Based on this finding, the base sequences of amplified PCR products from 8 *Cervidae* (Chinese deer, Russian deer, Hong Kong deer, New Zealand deer, Kazakhstan deer, Red deer, Elk and Sika deer) antlers and 2 *Rangifer* antlers were determined and subjected to restriction analysis. The result showed that *Rangifer* species are almost the same biological origin as Sika deer, and their antlers could be simply disciminated with other 7 *Cervidae* antlers by PCR-RFLP analysis using *Alu*I or *Sau*3AI(*Mbo*I) in the range of mitochondrial cytochrome b gene. *Taq*I could be also one of promising enzyme in molecular discrimination of *Cervidae* antlers from *Rangifer* antlers by PCR-RFLP analysis, except antler from Kazakhstan deer. It was confirmed that the restriction analysis was consistent with our experimental results.

[PD2-55] [ 10/20/2000 (Fri) 11:30 - 12:30 / [Hall B] ]

## Pharmacognostical Studies on the "Yong Dam"

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The Chinese crude drug, "Yong Dam(龍膽)" which is derived from the root of Gentiana plants of the family Gentianaceae, has been used as remedies for stomachic, intestinal catarrh, convulsion, etc. With regard to the botanical origin of "Yong Dam", it has been considered to be Gentiana

species of Gentianaceae, especially Gentiana scabra, but there has no pharmacognostical confirmation on it. To clarify the botanical origin of "Yong Dam", we studies on the anatomical characteristics of Gentiana species growing wild in Korea i.e. Gentiana scabra var. buergeri, G. uchiyamai, G. triflora, G. axillariflora var. coreana and of "Yong Dam" from Korea on korean market. Through our studies, the botanical origin of "Yong Dam" from Korea was proved to be Gentiana scabra var. buergeri and Geniana axillariflora var. coreana.

[PD3-1] [ 10/19/2000 (Thr) 15:00 - 16:00 / [Hall B] ]

### A Study on the Extraction Quantity of Amygdalin in Armenicae Semen

Chang KW, Sung HK, Lee JH and Hong SP

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Armeniacae semen is the natural medicine which has been generally used for asthma, dyspnea, edema, etc. Armeniacea semen has been usually used as powders after it is peeled off in korean traditional medicine.

Amygdalin, major ingredient of armeniacae semen, is decomposed to benzaldehyde, HCN, glucose by emulsin, the enzyme, in water. Therefore, amygdalin are almost decomposed when the armeniacae semen are made into the form of the decoction of armeniacae semen powder. To understand the decomposed extent of amygdalin, we have studied making differences of the particle sizes and extractants. The results indicated that amygdalin were not almost decomposed in organic solvent(extractant) such as methanol in which emulsin didn't work on. And the larger particle size was, the lower decomposition rate we could get in water.

The separation and quantitation of amygdalin was carried by high- performance liquid chromatography.

[PD3-2] [ 10/19/2000 (Thr) 15:00 - 16:00 / [Hall B] ]

#### A Study on the Extraction Quantity of Amygdalin in Persicae Semen

Lee SS, Cho JY, Lee JH and Hong SP

Department of Oriental Pharmaceutical Science, College of Pharmacy, Kyung Hee University

Persicae semen is the natural medicine which has been generally used for relieving cough, removing the phlegm and blood stasis in korean traditional medicine. Persicae semen has been usually used as powders without peeled off.

Amygdalin, major ingredient of persicae semen, is decomposed to benzaldehyde, HCN, glucose by emulsin, the enzyme, in water. Therefore, amygdalin are almost decomposed when persicae semen are made into the form of the decoction of persicae semen powder.

To understand the decomposed extent of amygdalin, we have studied making differences of the particle sizes and extractants. The results indicated that amygdalin were not almost decomposed in organic solvent(extractant) such as methanol in which emulsin dodn't work on. And the larger particle size was, the lower decomposing rate we could get in water. In powder, the extraction rate of amygdalin was  $5\sim6\%$  in contrast to 65 % in whole.

[PD3-3] [ 10/19/2000 (Thr) 15:00 - 16:00 / [Hall B] ]

Studies on the Essential Oils of Dendranthema zawadskii Tzv.