[PD2-9] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Isoquinoline Alkaloids from Corydalis ochotensis

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Corydalis ochotensis(Fumariaceae) is widely distributed in Korea. This plant has been used in traditional chinese medicines as antipyretic, analgesic and diuretic agents.
Chemical investigation of the aerial parts of C. ochotensis has led to the isolation of five isoquinoline alkaloids. From the chloroform fraction two spirobenzyl isoquinoline alkaloids were isolated, and from the n-BuOH fraction two phthalide isoquinoline and a tetrahydroprotoberberine alkaloids has been isolated.

[PD2-10] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Anti-allergic Activity from Crassirhizomae Rhizoma

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Crassirhizomae Rhizoma is the dried rhizome of *Dryopteris crassirhizoma* Nakai (Aspidiaceae), known to be rich in anthelmintic phloroglucinol derivatives. As part of our search for new anti-allergic agents from natural products, extracts of thirty one medicinal plants were tested for their inhibitory activity against the release of hexosaminidase in RBL-2H3 cells. Of these, *n*-hexane extract of Crassirhizomae Rhizoma showed the most significant activity. Bioassay-guided fractionations resulted in the isolation of two active compounds. The activity of compound 1 was stronger than that of quercetin, a positive control used in the assay.

[PD2-11] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Phytochemical constituents of Actinidia arguta

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As part of our systematic study of korean medicinal plants, Actinidia arguta was studied. The root of Actinidia arguta has been used as an ascites, edema and inflammation in Chinese medicine.This experiment describes isolate and elucidate structure of the components from roots of Actinidia arguta. These results suggested that the antioxidant activity of root of Actinidia arguta may be due to flavonoid components. The most active EtOAc, CH2Cl2 fraction was repeatedly chromatographed over silica and Sephadex LH-20 to afford Seven compounds.

[PD2-12] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Isoprenylated Flavan as Inhibitor of Nitric Oxide Synthase Expression from Broussinetia kazinoki

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The overproduction of nitric oxide (NO) by inducible nitric oxide synthase (i-NOS) is one of the major characteristic features of inflammation and sepsis. We intended to find the i-NOS inhibitors from plants by using the macrophage cell culture system. RAW 264.7 cells were activated by lipopolysaccharide (LPS) in the presence of plant samples, and the amounts of NO formed by i-NOS were determined by using Griess reagent in the form of NO_2^-. One active compound was purified from *Broussinetia kazinoki* by activity-guided fractionation, and the structure was identified as kazinol B from the spectral analysis. This compound showed strong inhibitory activity of NO production in LPS-activated macrophages and the IC_{50} value (the concentration required for the 50% inhibition of NO production compared to the LPS control) was 21.6 μM. The co-treatment of kazinol B with LPS to the cells caused the decrease of NO production, while the post-treatment of sample didn't. These results might come from the inhibition of i-NOS expression by kazinol B in LPS-treated macrophages, not from the inhibition of i-NOS enzyme activity.

[PD2-13] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Isolation of Monoamine Oxidase-B Inhibitory Compounds from the fruit and the stem of Opuntia ficus-indica var. saboten

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Three kinds of citric acid methylesters and malic acid monomethylester were isolated from the fruit and the stem of *Opuntia ficus-indica* var. *saboten* Makino using *in vitro* monoamine oxidase inhibition assay-guided isolation method. The MAO-B IC_{50} values of citric acid monomethylester, citric acid dimethylester, citric acid trimethylester, and malic acid monomethylester were 0.35mg, 0.40mg, 1.27mg, and 0.27mg, respectively. However, the MAO-A IC_{50} values showed the only marginal activities. These data indicated that the separated organic acid methylesters inhibited MAO-B activity more strongly than that of MAO-A.

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

A Bioactive Aliphatic Diamine, Harmonine, from Ladybird Beetles

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A known alkaloid, harmonine, has been isolated from two ladybird beetles, *Aiolocaria hexaspilota* and *Harmonia axyridis*. Harmonine was known as a defensive chemical of ladybird. The compound showed a significant toxicity to brine shrimp larvae and cytotoxicity against human tumor cells.

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

Phytochemical constituents and Biological activities from aerial part of Angelica gigas Nakai.