than that of adriamycin.

[PD2-18] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Studies on the constituents of Rhodiola rosea

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Rhodiola rosea (Crassulaceae) is mainly distributed in the high cold region of China. The root of this plant has been prescribed for hemostatic, antibechic and tonic purposes in Chinese traditional preparations and used as an endermic liniment for burns and contusions. The aqueous extract of this crude drug showed the antioxidative effect in DPPH radical scavenging method.
For the isolation of antioxidative constituents, an aqueous extract subjected to a Amberlite XAD-2 column chromatography to afford H2O and methanol elution fractions. Methanol fraction was purified by Sephadex LH-20 and silica gel column chromatography to obtain 4 compounds. The structure elucidation and biological activities of these compounds will be discussed.

[PD2-19] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Isolation of Tissue Factor Inhibitors from Amaranthus deflexus and the Changes of Tissue Factor Inhibition by Blanching

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Tissue Factor(TF), tissue thromboplastin, is a membrane-bound glycoprotein which can be found mainly in brain, lung, placenta tissues and which triggers both intrinsic and extrinsic pathway of blood clotting cascade. Many edible plants, seaweed, legumes, cereals, soy paste, traditional pharmaceutics were screened for TF inhibitory activity. Among them, *Amaranthus deflexus* was selected for isolation of TF inhibitors. From a water fraction, compound I was isolated and was proved to be allantoin. Unknown compound X which behaved with tryptophan was isolated from a butyl alcohol fraction but not identified. IC_{50}/TF unit of allantoin and tryptophan were measured as 4.3 and 421μg, respectively. Allantoin content in water extract of *A. deflexus* was measured by HPLC with Lichrosorb RP-18 column and with gradient solution of acetonitrile and water as mobile phase. Maximum amount was achieved at 60min extraction at 95℃ in dry basis. The higher temperature or the longer extraction time, the more allantoin was eluted. Allantoin amount and total TF inhibitory activity were significantly correlated.

[PD2-20] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Chemical constituents of Adonis amurensis and their inhibition of tube-like formation of HUVE Cells

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Several plant materials collected in Keryong mountain were tested for antiangiogenic effect on

HUVEC (Human Umbilical Vein Endothelial Cell) as well as cytotoxicity on L1210 cell and A549 cells. Among the materials tested, Adonis amurensis (Ranunculase) showed strong antiangiogenic activity. Activity-guided fractionation resulted in isolation of three cardenolides which possessed antiangiogenic activity. One of them exhibited an selective antiangiogenic effect on HUVEC. The others showed cytotoxic activity on A549 cells, but hardly on L1210 cells.

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

New cytotoxic dilignans from underground parts of Saururus chinensis

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Two new dilignans including two known dilignans, manassantin A and B were isolated from underground parts of *Saururus chinensis* (Lour.) Baill. (Saururaceae). Their chemical structures were evaluated using several spectroscopic data. These lignans showed selective cytotoxic activities against HL-60 cell line.

[PD2-22] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Additional Cytotoxic Polyacetylenes from the Marine Sponge Petrosia sp.

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Ten new polyacetylenic alcohols (1-6, 8-11), along with a known compound petrocortyne C (7), were isolated from the marine sponge Petrosia sp. The gross structures were established based on NMR and MS data, and the absolute configuration was determined by the modified Moshers method. These compounds displayed considerable cytotoxicity against a small panel of human solid tumor cell lines. Compounds 1-11 were further evaluated for in vitro inhibitory activity on DNA replication.

[PD2-23] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Isolation of Virus-Cell Fusion Inhibitory Components from Eugenia caryophyllata

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HIV human immunodeficiency virus) is a retrovirus that causes acquired immune deficiency syndrome (AIDS).1 In order to get successful anti-AIDS therapeutic medicines, simple and sensitive tests to identify agents that interfere with viral replicative cycle need to be developed. The syncytia formation inhibition assay, which is based on the inhibition of the interaction between the HIV-1 envelope protein gp120 and the cellular membrane protein CD4. In a previous study,8 methanolic extracts of various plants and crude drugs representing about 50 plants were tested for their activity to inhibit virus-cell fusion.
By means of bioassay-directed chromatographic fractionation, four tannins, eugeniin (1), casuarictin (2), 1,3-di-O-galloyl-4,6-(S)-hexahydroxydiphenoyl-?-glucopyranose (3) and tellimagrandin I (4), and two chromones, biflorin (5) and isobiflorin (6) were isolated from E. caryophyllata. Among the isolated compounds, tellimagrandin I (4) and eugeniin (1) showed strong inhibition of virus-cell fusion with IC50 values of 15.14 and 18.62 ug/ml, respectively.