

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, antiechic 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 pharmaceuticals 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. IC₅₀/TF unit of allantoin and tryptophan were measured as 4.3 and 421 μ g, 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 $^{\circ}$ C 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