

Poster Presentations – Field D3. Oriental Medicine

[PD3-1] [04/18/2003 (Fri) 13:30 – 16:30 / Hall P]

Free Radical Scavenging and Hepatoprotective Effects of Osumokkya-tang

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In order to find the new hepatoprotective agents the preliminary screening of 12 prescriptions which have been used for the treatment of hepatic disease in Oriental traditional medicine has been carried out. Both DPPH free radical scavenging and hepatoprotective effect on tacrine-induced cytotoxicity in Hep G2 cells are performed.

Osumokkya-tang which is one of the prescription belongs to interior-warming properties showed the DPPH free radical scavenging effect as well as hepatoprotective activity significantly. Mutual assistant effect between Evodiae Fructus and Chaenomelis Fructus also exhibited.

[PD3-2] [04/18/2003 (Fri) 13:30 – 16:30 / Hall P]

Hispidin from the Mycelial Cultures of Phellinus linteus Inhibits A β -Secretase (BACE1) and proyl endopeptidase

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The γ - and β -secretase are one of the most important proteases, which cleave amyloid precursor protein (APP) into neurotoxic A β peptide in Alzheimer's type dementia.

In the course of screening for anti-dementia agents from natural products, the mycelial culture of mushroom Phellinus linteus showed potent inhibition against β -secretase (BACE1). The inhibitor was isolated from the culture broth of P. linteus and the active substance was identified as hispidin [6-(3,4-dihydroxystyryl)-4-hydroxy-2-pyrone] by spectral analysis and chemical synthesis. The IC₅₀ value of hispidin against BACE1 was 48.3 μ M. Hispidin also effectively inhibited proyl endopeptidase (IC₅₀=15.9 μ M), which has been known as a tentative γ -secretase, but it was less inhibitory to other proteases such as chymotrypsin, trypsin, and elastase.

The maximal hispidin production was reached at twelve days after onset of inoculation.

[PD3-3] [04/18/2003 (Fri) 13:30 – 16:30 / Hall P]

Study on the Inhibition of anti-platelet and Anticoagulant activity from Rhus verniciflua Stokes