[PD2-29] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Phenylpropanoids from Scrophularia buergeriana Protect Cultured Rat Cortical Neurons from Glutamate-Induced Neurotoxicity

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We previously reported phenylpropanoids isolated from *Scrophularia buergeriana* Miquel (Scrophulariaceae) attenuate glutamate-induced neurotoxicity in primary cultures of rat cortical neurons. In the present study, we investigated their neuroprotective mechanisms *in vitro* culture system. Phenylpropanoids isolated from *S. buergeriana* diminished the calcium influx that routinely follows glutamate neurotoxicity, and inhibited subsequent overproduction of NO in glutamate-treated cells. The neuroprotective compounds were more potent against the toxicity induced by N-methyl-D-aspartate than that mediated by kainate. These results demonstrate that phenylpropanoids isolated from *S. buergeriana*: (1) exerted significant neuroprotective effects on cultured cortical neurons; and (2) may be efficacious in protecting neurons from oxidative damage produced by exposure to L-glutamate.

[PD2-30] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Anti-HIV-1 Protease Activity and Phytochemical Study on the Aerial Parts of Orostachys japonicus

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Inhibitory effect on Human Immunodeficieny Virus Type 1 protease (PR) and phytochemical study on the aerial parts of Orostachys japonicus A. Berger (Crassulaceae), which is used as the antitumor agents in Korean folklore medicine were investigated. The PR inhibitory activity was determined by incubating the extract in a reaction mixture containing PR and substrate His-Lys-Ala-Arg-Val-Leu-(pNO2-Phe)-Glu-Ala-Nle-Ser-NH2 at pH 5.0 to perform proteolytic cleavage reaction. The cleaved product was measured by reverse-phase HPLC, using a gradient of acetonitrile/0.1% trifluoroacetic acid as a mobile phase. The methanol extract of title plant showed a strong inhibition at 0.1 mg/ml. The methanol extract from aerial parts of O. japonicus was fractionated into dichloromethane, ethyl acetate, n-butanol and aqueous fractions. Column chromatography of ethyl acetate and n-butanol soluble fractions afforded four aromatic acids and five flavonoid compounds.

[PD2-31] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Antioxidative and Antihepatic Effects of Galla Rhois(Rhus javanica Linne)

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Reactive oxygen species(ROS) are produced at a high rate continuously as a by-product of aerobic metabolism. A major portion of living organisms has defense system as superoxide dismutase or catalase against demage produced by ROS. Several lines of evidence provided that ROS appears to