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Liriope platyphylla (LP) Wang et Tang has been used for tonic, anti-tussive and expectorant in Korea. In the current study, we found that buthanol fraction of Liriope platyphylla-conditioned media of C6 and primary astrocyte induced the neurite outgrowth of PC 12 cells, which effect was reversed by addition of NGF-antibody. We demonstrated that buthanol fraction of Liriope platyphylla increased the expression and secretion of NGF through RT-PCR and ELISA. Taken together, our results suggested that NGF enhanced by buthanol fraction of Liriope platyphylla was responsible for induction of neurite outgrowth of PC 12 cells. We also investigated the effect of this extract on the phosphorylation of MAPkinase (Erk1/2), which plays a crucial role in the survival and differentiation of neurons. Buthanol fraction of LP increased MAP kinase activity in PC12 cells, and probably activated MAP kinase signal pathway to cause neurite outgrowth. These neurotrophic effects on PC12 cells were inhibited by PD98059, which blocks NGF action by inhibition of MAP kinase cascade. These result suggest that buthanol fraction of LP may have neurotrophic like action as well as neurotrophic inducers by activation of Trk tyrosine kinase downstream.

[PA1-23] [04/17/2003 (Thr) 14:00 - 17:00 / Hall P]

Regulatory Effect of Atopic Allergic Reaction by *Sargassum hemiphylum*

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We studied the effect of methanol extract of *Sargassum hemiphylum*(SH) on atopic allergic reaction. SH dose-dependently inhibited interleukin (IL)-8 and tumor necrosis factor (TNF)- α secretion from the PMA- plus A23187- stimulated HMC-1. SH also dose-dependently inhibited the histamine and β -hexosaminidase release from mast cells. In addition, SH (0.1 mg/ml) decreased NF- κ B activation (about 7 fold) compared with untreated 293 T cells. SH had no cytotoxic effect. These results suggest that SH has the inhibitory effect of atopic allergic reaction and this might be useful for clinical application to treat several allergic diseases such as atopic dermatitis.

[PA1-24] [04/17/2003 (Thr) 14:00 - 17:00 / Hall P]

Inhibitory Effect of Rat Aortic Vascular Smooth Muscle Cell Proliferation by Luteolin

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It was previously reported that luteolin, a flavone compound, displayed the potent anti-oxidant and anti-inflammatory effects, which have also been successful in reducing vascular smooth muscle cells (VSMCs) proliferation after arterial injury. Proliferation of VSMCs plays an important role in development of atherosclerosis. In this study, a possible anti-proliferative effect and its