

iNOS by various stimuli, resulting in over-production of NO, contributes to the pathogenesis of septic shock and some inflammatory and autoimmune diseases. Therefore, it would be valuable to develop inhibitors of iNOS for potential therapeutic use.

Bakuchiol derived from the seeds of *Psoralea corylifolia* showed inhibition of nitric oxide synthesis in a dose-dependent manner by murine macrophage-like RAW 264.7 cells stimulated with interferon- $\gamma$  plus lipopolysaccharide. The inhibition of NO synthesis of bakuchiol was reflected in the decreased amount of iNOS protein, as determined by Northern blotting.

[PD2-39] [ 10/20/2000 (Fri) 11:30 – 12:30 / [Hall B] ]

### **Screening of Inhibitory Activity of LTB<sub>4</sub> Binding to Human Neutrophil from Medicinal Plants**

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Leukotriene B<sub>4</sub> (LTB<sub>4</sub>) is a pro-inflammatory mediator synthesised in myeloid cells from arachidonic acid and elevated levels of LTB<sub>4</sub> has been found in a number of inflammatory diseases. Because LTB<sub>4</sub> interacts with cells through specific cell surface receptors, LTB<sub>4</sub> receptor blockade is the most specific approach to reduce the pathogenic role of LTB<sub>4</sub>. In order to find LTB<sub>4</sub> receptor antagonist from plants, we screened the LTB<sub>4</sub> receptor antagonistic activity of herbal drugs. The ability of samples to inhibit specific binding of [<sup>3</sup>H]-LTB<sub>4</sub> to human peripheral neutrophils was used as assay to evaluate the antagonistic activity of plant materials. Among the tested methanol extracts of herbal drugs, Mori Radicis Cortex, Perillae Semen, Armeniacae Semen and Sophorae subprostratae Radix showed potent inhibitory activity above 70% at the concentration of 100  $\mu$ g/ml. We anticipate new LTB<sub>4</sub> receptor antagonist from herbal drugs, and the block of LTB<sub>4</sub> effects may provide beneficial in neutrophil mediated diseases such as inflammation and bronchial asthma.

[PD2-40] [ 10/20/2000 (Fri) 11:30 – 12:30 / [Hall B] ]

### **Antiviral screening of Korean sea weeds**

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More than 350 million world wide people are persistent carriers of hepatitis B surfaces antigen. Infection with HBV may lead to severe liver diseases, including liver failure, cirrhosis and hepatocellular carcinoma. Interferone and lamivudine are used for the treatment of HBV infection, but these have severe dose-dependent side effects and cross-resistance, respectively. Thus we tested anti-HBV assay with the Korean sea weeds and we also carried out anti-HIV and anti-HIV reverse transcriptase screening for the search of a new lead from marine resources. Among the 30 sea weeds tested, methanolic extracts of SSI-6, SSI-12 and S-33 showed anti-HBV activity and SSI-1, SSI-5, SSI-6, SSI-7 showed significant anti-HIV integrase and anti-HIV reverse transcriptase activity. On the basis of these results, organic solvent fractionation and subsequent bioactive-guided column chromatography are being progressed for the isolation and elucidation of active constituents.