

methanolic extract of the leaves of *Juglans sinensis* was found to have a promising activity. Assay-guided fractionation of this extract has been furnished DPPH free radical scavenging flavonoids and stilbens.

[PD2-44] [ 10/17/2002 (Thr) 09:30 ~ 12:30 / Hall C ]

#### Screening of monocyte chemoattractant protein-1-induced chemotaxis inhibitors from medicinal herbs

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Blood monocytes are the precursors for the lipid-laden foam cells of early atherosclerotic lesions. Monocyte chemoattractant protein-1 (MCP-1), a CC chemokine, and chemokine receptor 2 (CCR2) play a crucial role in the recruitment of monocytes to the vascular lesion. Using the human monocyte THP-1 cell line, we investigated the inhibitory effects of methanol extracts of 127 medicinal herbs on MCP-1-induced chemotaxis. Seven kinds of methanol extracts of medicinal herbs showed above 40% inhibitory effect with the concentration of 25  $\mu\text{g/ml}$ . Butanol extract of *Juncus effusus* and  $\text{CHCl}_3$  extract of *Clematis mandshurica* showed significant inhibitory activities (above 50% inhibition) at the same concentration.

[PD2-45] [ 10/17/2002 (Thr) 09:30 ~ 12:30 / Hall C ]

#### Tyrosinase and melanin biosynthesis inhibitory activities of crude drugs

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Melanin biosynthesis inhibitors are useful not only for the materials used in cosmetics as skin-whitening agents but also for the remedy of hyperpigmentation. In order to find the new skin-whitening compounds from the natural products, screening of tyrosinase and melanin biosynthesis inhibitory activities in vitro has been carried out. The MeOH extracts and/or fractions of *Polygoni multiflori Radix*, *Dalbergiae odoriferae Lignum*, *Solnani nigri Herba*, *Polygoni cuspidati Radix*, *Polygoni multiflori Ramulus*, *Salviae Radix* showed tyrosinase inhibitory effects. Four methanolic extracts also showed melanin biosynthesis inhibitory effects in B-16 melanoma cell line.

[PD2-46] [ 10/17/2002 (Thr) 09:30 ~ 12:30 / Hall C ]

#### Inhibitory Effects of Natural Plant extracts on ICAM-1/LFA-1 Mediated Adhesion of HL-60 Cells

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Atherosclerosis is a progressive disease characterized by the accumulation of lipids and fibrous elements in the arteries. Monocytes/macrophages are involved in many aspects of the development of atherosclerotic plaques. It is known that the intercellular adhesion molecule-1 (ICAM-1) expressed preferentially on endothelial cells of atherosclerotic plaque, promotes local adhesion and transendothelial migration of monocytes, neutrophils, and lymphocytes. Using the human promyelocytic leukemia HL-60 cell line, we investigated the inhibitory effects of methanol extracts of 175 plants on ICAM-1/LFA-1 mediated cell adhesion. Eight kinds of methanol extracts of tested plants inhibited PMA-induced homotypic aggregation of HL-60 cells without cytotoxicity at the concentration of 6.25  $\mu\text{g/ml}$ .  $\text{CHCl}_3$  extracts (1.0  $\mu\text{g/ml}$ ) of *Saururus chinensis* and *Chloranthus japonicus* significantly inhibited aggregation of HL-60 cells without cytotoxicity.