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 µg/ml. Rutanol extract of *Juncus effusus* and CHCl₃ 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 cosmetology 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 Polygonum multiflori Radix, Dalbergiae odoriferae Lignum, Solanum nigrum 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 µg/ml. CHCl₃ extracts (1.0 µg/ml) of *Saussurea chinensis* and *Chloranthus japonicus* significantly inhibited aggregation of HL–60 cells without cytotoxicity.