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This study was carried out to investigate the effects of godulbaegi (Ixeris sonchifolia H.) root extracts on the proliferation of several human cancer cells, such as SK-MEL-2, HT-29, MKN-28, MKN-45, MCF-7,
MDA-MB-231, and HepG2. We extracted the root of Ixeris sonchifolia H. with methanol and the methanol extract was suspended in H2O and successively partitioned with Et2O, EtOAc and n-BuOH. The EtOAc extract showed the most efficient anti-proliferative effects on the growth of human cancer cells. The EtOAc extract was subjected to silica gel column chromatography to give three fractions and one of the fraction showed efficient anti-proliferative effects on the growth of HepG2 liver cancer cells. The isolation and characterization of effective components are under investigation. Moreover, the role of this EtOAc extract on the induction of apoptosis is also under study.

[PA1-25] [04/20/2001 (Fri) 10:30 - 11:30 / Hall 4]

The Effect of two 1-naphthylmethyl analogs of Higenamine (YS-49 and YS-51) on LPS-induced Experimental Disseminated Intravascular Coagulation (DIC) in Rats

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Disseminated intravascular coagulation (DIC) is a pathological syndrome, which occurs following the uncontrolled widespread activation of blood coagulation, resulting in the intravascular formation of fibrin, which may lead to thrombotic occlusion of small and midium size vessels. This situation may compromise blood supply to various organs and may contribute to mutiple organ failure (MOF).
The indications for DICs include a decrease in the number of platelets in blood, a decrease of fibrinogen level and an increase of fibrin/fibrinogen degradation product (FDP) level in blood, and an extention of prothrombin time (PT) and activated partial thromboplastin time (aPTT). These indices for LPS-induced DIC were improved by the administration of YS-49 and YS-51, 1-naphthylmethyl analogs of higenamine. YS-49 and YS-51 prevented the decrease of the number of platelets and the concentration of fibrinogen in blood, the increase of FDP level, and the prolongation of PT and aPTT induced by LPS.
The parameters of multiple organ failure (MOF), such as serum glutamic oxalacetic transaminase (S-GOT), serum glutamic pyruvic transaminase (S-GPT) and blood urea nitrogen (BUN) were also suppressed by the oral administration of YS-49 and YS-51.

[PA1-26] [04/20/2001 (Fri) 10:30 - 11:30 / Hall 4]

Inhibition of Lipopolysaccharide-Induced NF-kappaB Activation by Dibenzylbutyrolactone Lignans Leads to Suppression of Nitric Oxide Synthase Expression in Macrophages

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Arctigenin and demethyltaxillagenin, dibenzylbutyrolactone lignans, exhibit anti-inflammatory effects. Nuclear factor-κB (NF-κB) activation and iNOS gene expression were studied in RAW264.7 cells as part of their immunomodulating effects. Activation of hepatic NF-κB and I-κBα degradation were assessed by gel mobility shift and immunoblot analyses. iNOS expression was monitored by Northern and Western blottings as well as nitrite production. Arctigenin inhibited LPS-induced nuclear NF-κB