constituents exhibited a potent antioxidant activity on the free radicals and lipid peroxidation and a notable protective effect on the t-BuOOH induced oxidative damage. In vivo test of skin damage induced by UVB irradiation, the extract of C. chinensis and a constituent, piceatannol, exhibited a significant protective effect. The life-span of the HEK-N/F cells were extended by 1.21-2.12 fold as a result of the continuous administration of 3 μg/ml of C. chinensis and the active constituents compared to that of the control. These observations were attributed to the inhibitory effect of the C. chinensis extract and its constituents on the age-dependent shortening of the telomere. Consequently, it is suggested that C. chinensis and its constituents can protect the skin cells from oxidative stress and thereby prevent cellular aging.

**[OD2-4] [ 2003-10-11 11:00 - 11:15 / ASEM Hall Meeting Room 203 ]**

## New inhibitors of the NF-κB activation and NO production from Artemisia sylvatica

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Three new guaianolide type of sesquiterpene lactones, 8α-angeloyloxy-1α-hydroxy-3α,4α-epoxy-5α,7αH-10(14),11(13)-guaiadien-12,6α-olide (1), 8α-methylbutyryloxy-1α-hydroxy-3α,4α-epoxy-5α,7αH-10(14),11(13)-guaiadien-12,6α-olide (2), and 8α-isovaleryloxy-1α-hydroxy-3α,4α-epoxy-5α,7αH-10(14),11(13)-guaiadien-12,6α-olide (3), together with six known sesquiterpenes, artemisolide (4), 3-methoxytanapartholide (5), deacetyllaurenobiolide (6), moxartenolide (7), arteminolide B (8), and arteminolide D (9) were isolated by bioassay-guided fractionation using the NF-κB mediated reporter gene assay system. All the isolated compounds showed strong inhibitory activity on both NF-κB activation and NO production with $IC_{50}$ values of 0.49 μM ~ 7.17 μM and 1.46 μM ~ 6.16 μM, respectively. These results suggest that arteminolides, sesquiterpene lactone guaianolides and moxartenolide are novel inhibitors of NF-κB activation and NO production and could be used as anti-inflammatory agents.

**[OD2-5] [ 2003-10-11 11:15 - 11:30 / ASEM Hall Meeting Room 203 ]**

## Four new lanostane-type triterpenes from Ganoderma applanatum

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Four new lanostane-type triterpenes were isolated from $CH_2Cl_2$ fraction of Ganoderma applanatum (Polyporaceae). There structures were determined as (20S)-3β, 7 β,20,23ζ-tetrahydroxy-11,15-dioxolanosta-8-en-26-oic acid, (20S)-7β,20,23ζ-trihydroxy-3,11,15-trioxolanosta-8-en-26-oic acid, 7β,23ζ-dihydroxy-3,11,15-trioxolanosta-8,20E(22)-dien-26-oic acid, and 7β-hydroxy-3,11,15,23-tetraoxolanosta-8,20E(22)-dien-26-oic acid methyl ester on the basis of spectral data.

**[OD4-1] [ 2003-10-11 11:30 - 11:45 / ASEM Hall Meeting Room 203 ]**

## Noninvasive blood glucose monitoring system based on NIR spectroscopy with a contact pressure control device

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The purpose of this study is to improve repeatability of a non-invasive blood glucose measurement. The portable NIR system that was newly integrated by our lab includes a tungsten halogen lamp, a specialized reflectance fiber optic probe and a photo diode array type InGaAs detector, which was developed by a microchip technology based on the lithography. Reflectance NIR spectra of finger tip were recorded by using a fiber optic probe. The probe was fixed in the system and subjects put their finger on the probe head. But, difference of