

week for 9 weeks. During the treatment of BPA, the food uptake and body weight increase were not significantly changed. BPA resulted in the increased stereotype behaviors (jumping rearing and forepaw tremor) 6 or 9 weeks after treatment. The time response to tail flick and locomotor activity were decreased by the treatment of BPA, whereas the time for rotarod was increased by the treatment of BPA. The expression of estrogen receptor alpha and beta was increased in the brain and pituitary gland. Maximum expression was found in the rat brain after 9 week of 100 mg/kg BPA treatment and in the pituitary gland after 6 week of 100 mg/kg BPA treatment. Tyrosine hydroxylase was increased in dose and time dependent manners in the brain. The present data show that exposure of BPA in the young rats could alter expression estrogen receptors and dopamine synthesis pathway, thereby modulate neuro-behavior patterns (increase of stereotype behaviors but decrease locomotors activity).

[PA1-20] [ 04/17/2003 (Thr) 14:00 – 17:00 / Hall P ]

### Further Triterpene Glycosides from *Echinosophora koreensis*

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We have previously reported three new oleanene-type glycosides and kudzusaponin A<sub>3</sub> methyl ester and subproside II methyl ester from the roots of *Echinosophora koreensis*. Further study has now led to the isolation of three known oleanen-type glycosides, sophoraflavoside I , azukisaponin V , and kudzusaponin SA<sub>3</sub> as their methyl esters. The structures of theses compounds were characterized by spectroscopic and chemical methods.

[PA1-21] [ 04/17/2003 (Thr) 14:00 – 17:00 / Hall P ]

### Regulatory Effect of Atopic Allergic Reaction by *Pachydictyon coriaceum*

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We studied the effect of methanol extract of *Pachydictyon coriaceum* (PC) on atopic allergic reaction. PC dose-dependently inhibited interleukin (IL)-8 and tumor necrosis factor (TNF)- $\alpha$  secretion from the PMA- plus A23187- stimulated HMC-1. PC also dose-dependently inhibited the histamine and  $\beta$ -hexosaminidase release from mast cells. PC had no cytotoxic effect. These results suggest that PC has the inhibitory effect of atopic allergic reaction and this might be useful for clinical application to treat several allergic diseases such as atopic dermatitis.

[PA1-22] [ 04/17/2003 (Thr) 14:00 – 17:00 / Hall P ]

### Enhancement of nerve growth factor production and release by buthanol fraction of *Liriope platyphylla* in C6 cells and rat cultured astrocyte