

(EDG)1, EDG3, EDG5 and EDG8 receptor existed in cat esophageal smooth muscle. In conclusion, SIP induces the contraction of cat esophageal smooth muscle cells which mediated by EDG receptor(s) coupled to PTX-sensitive G-protein. PLC was involved in this contraction as well as PKC and p42/44 MAPK.

[PA1-9] [ 2003-10-10 14:00 - 17:30 / Grand Ballroom Pre-function ]

### **Sauchinone, a Lignan from *Saururus chinensis*, Suppresses iNOS Expression through the Inhibition of Transactivation Activity of RelA of NF- $\kappa$ B**

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Sauchinone, a known lignan, was isolated from the root of *Saururus chinensis* as an active principle responsible for inhibiting the production of NO in LPS-stimulated RAW264.7 cells by activity-guided fractionation. Sauchinone dose-dependently inhibited not only the production of NO, but also the expression of iNOS mRNA and protein in LPS-stimulated RAW 264.7 cells. Furthermore, sauchinone prevented LPS-induced NF- $\kappa$ B activation, which is known to play a critical role in iNOS expression, assessed by a reporter assay under the control of NF- $\kappa$ B. However, electrophoretic mobility shift assay (EMSA) demonstrated that sauchinone did not suppress the DNA-binding activity of NF- $\kappa$ B or the degradation of I $\kappa$ B- $\alpha$  induced by LPS. Further analysis revealed that transactivation activity of RelA subunit of NF- $\kappa$ B was dose-dependently suppressed in the presence of sauchinone. Taken together, our results suggested that sauchinone could inhibit production of NO in LPS-stimulated RAW264.7 cells through the suppression of NF- $\kappa$ B by inhibiting transactivation activity of RelA subunit.

[PA1-10] [ 2003-10-10 14:00 - 17:30 / Grand Ballroom Pre-function ]

### **Gallic acid Inhibits Platelet Aggregation by Arachidonic Acid Liberation and Tx $A_2$ Synthase Activity**

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We have previously reported that green tea catechins (GTC) displayed anti-thrombotic activity, and that this might be due to anti-platelet rather than anti-coagulation effects. In the present study, we have studied the anti-platelet activity and mechanism of gallic acid (GCG), which is a component of GTC. GCG inhibited the collagen- and U46619-induced aggregation of rabbit platelets, with IC<sub>50</sub> values of 63.0 and 48.3  $\mu$ M, respectively. GCG also inhibited collagen-induced serotonin release and Tx $B_2$  formation in a similar manner of platelets aggregation. GCG potently inhibited collagen- induced arachidonic acid liberation from membrane phospholipids and diacylglycerol release in a dose-dependent manner. Whereas, GCG had little effect on the level of PGD<sub>2</sub>. Tx $B_2$  conversion from arachidonic acid and thromboxane A<sub>2</sub> synthase activity were significantly inhibited by GCG. GCG potently decreased the rise in [Ca<sup>2+</sup>]<sub>i</sub> at a concentration of 200  $\mu$ M. Taken together, these observations suggest that the anti-platelet activity of GCG may be mainly due to inhibition of arachidonic acid liberation by Ca<sup>2+</sup>-dependent cPLA<sub>2</sub> through the inhibition of Ca<sup>2+</sup> influx and of thromboxane A<sub>2</sub> synthase activity.

[PA1-11] [ 2003-10-10 14:00 - 17:30 / Grand Ballroom Pre-function ]

### **Pharmacological activities of *Dongchunghacho* strains**

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*Dongchunghacho* (*Dong-Chong-Xia-Cho* in Chinese) is one of entomogenous fungi that grow as parasites mainly to pupae or larvae. It includes many different genera such as *Cordyceps*, *Paecilomyces*, *Torrubiella* and *Podonectria*. The ethanolic extract of *Cordyceps scarabaeicola*, prepared from its fruiting bodies, showed significant inhibitory activity on angiogenesis, which was detected by chick embryo chorioallantoic membrane