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*Cordyceps* is reputed for its broad biological activities and as a tonic for replenishing vital function in folk medicines.

Lipid peroxidation and oxygen free radical injure are major causes of the developement of atherosclerosis, cancer, liver disease, and the aging process.

This study was carried out to investigate the antilipidperoxidative activity of *Cordyceps staphylinidaecola*.

It was extracted with water. We determined CCl<sub>4</sub>-treated liver injured rats and measured liver homogenate MDA by TBARS assay and serum parameters.  
As a result, the activity increased by dose dependance.

[PD2-42] [ 04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3] ]

### Anti-Lipid Peroxidative Principles of the Stem Bark of *Kalopanax pictus* Nakai

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Hepatic lipid peroxide contents were examined in bromobenzene-treated rats after the oral administration of MeOH extract of the stem bark *Kalopanax pictus*, its n-BuOH fraction, EtOAc fraction and an alkali hydrolysate of the n-BuOH fraction and after intraperitoneal administration of hederagenin monodesmosides and bisdesmosides. The hederagenin monodesmosides, kalopanaxsaponin A and sapindoside C, exhibited significant anti-lipid peroxidation effects after intraperitoneal administration with 10-30 mmole/kg, whereas their bisdesmosides exhibited no significant activity. These two saponins were suggested to be contributable to the anti-lipid peroxidation of *K. pictus*.

[PD2-43] [ 04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3] ]

### Anticarcinogenic Effect of the Heartwood of *Rhus verniciflua* and Its Active Principles

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Many xenobiotic substances are activated via hepatic microsomal enzymes and induce disturbances of DNA strands as well as lipid peroxidation. In our concerning to the elucidation of anticarcinogenic principles from the heartwood of *Rhus verniciflua*, the anti-lipid peroxidation of the MeOH extract of *R. verniciflua* heartwood in vivo and antimutagenicity of the MeOH extract and its fractions in vitro were observed. In bromobenzene-treated rats, the MeOH extract inhibited microsomal cytochrome P450 enzymes and activated glutathione S-transferase, and finally it significantly reduced malondialdehyde contents. In Ames test, the addition of 1.0 mg/plate of MeOH extract and EtOAc fraction to *Salmonella typhimurium* TA100 inhibited the mutagenicity by aflatoxin B1 to a level of the spontaneous group. Column chromatographic isolation of EtOAc fraction yielded five flavonoids. By Ames test of these components, sulfuretin was found to scavenge electrophilic intermediate capable of mutation, whereas fustin was shown to be a direct antimutagen which is not involving in the inhibition of hepatic microsomal enzymes. These results suggest that the extract of *R. verniciflua* heartwood is a potent anticarcinogen and that its components of sulfuretin and fustin are active