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Tacrine(THA) is the only drug currently approved for the treatment of Alzheimer's disease. It has been reported that the major side effect of THA is hepatotoxicity. In this study, we tried to find the hepatoprotective natural products on THA's toxicity. A methanolic extract of *P. linteus* is prepared, and this extract has been partitioned with organic solvents of the different polarities to afford n-hexane, dichloromethane, ethylacetate, n-butanol, and aqueous soluble fractions.
The protective effect of this six samples against THA-induced cytotoxicity was determined by MTT assay, and antioxidative effects were estimated by DPPH radical scavenging action and MDA formation by TBA method. THA showed cytotoxicity in the time and dose-dependent manners against Hep G2 cell lines. Among six samples, dichloromethane and ethylacetate fractions exhibited the moderate protective effect on THA-induced cytotoxicity. Silymarin was used as a positive control. These two fractions also showed the moderate effects on DPPH radical scavenging action and MDA formation. It is necessary for isolation of active constituents in these fractions to develop the hepatoprotective agent.

[PD2-37] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

α-Viniferin and Kobophenol A, acetylcholinesterase inhibitors from Caragana chamlague

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In the course of our search for acetylcholinestrase inhibitor from natural product, it was found that a total methanolic extract of *Caragana chamlague* LAM. (Leguminosae) showed significant inhibitory effects on acetylcholinestrase. Further activity-guided fractionation of the extract resulted in the isolation and purification of stilbene oligomers, α-viniferin and kobophenol A. The IC_{50} values of α-viniferin and kobophenol A were 16.64 μM and 115.8 μM, respectively.

[PD2-38] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]

Microbial Metabolism Studies of Silybin, an Antihepatotoxic Flavonolignan

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Silybin is the major component of silymarin, the active principle isolated from the ripe fruits of *Silybum marianum* (L.) Gaertn. (*Cardus marianus* L.) (Asteraceae), which has considerable therapeutic potential in protecting intact or damaged liver cells.
An important aspect of the development of any drug is the study of its metabolism. Drug metabolism studies have mainly relied on the use of small animal models or *in vitro* enzyme systems. Microorganisms have been successfully used as predictive models for mammalian drug metabolism. A number of microorganisms were screened for their ability to metabolize silybin. *Trichoderma koningii* (KCTC6042) was selected for preparative scale transformation. Scale-up fermentation with *T. koningii* has resulted in the production of two major microbial metabolites.

[PD2-39] [04/21/2000 (Fri) 14:50 - 15:50 / [1st Fl, Bldg 3]]