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Eight compounds were isolated from the MeOH extracts of *Erythrina senegalensis* for HIV–1 protease inhibitors. Their structures were elucidated as eight isoflavonoids by spectroscopic analysis. These compounds showed dose dependent inhibitory activities on HIV–1 protease with IC₅₀ values from 0.5 to 30.0 μM.

[PD2–33] [10/17/2002 (Thr) 09:30 – 12:30 / Hall C]

Xanthorrhizol inhibits pro-inflammatory mediators in mouse macrophage cells

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Prostaglandins (PGs) and nitric oxide (NO) are essential to maintain homeostasis and defense systems in human beings. However, overproduced PGs and NO by inducible cyclooxygenase (COX–2) and inducible nitric oxide synthase (iNOS), respectively, cause tissue damages, chronic inflammation, and carcinogenesis. In this view, the potential COX–2 or iNOS inhibitors have been considered as anti-inflammatory or cancer chemopreventive agents. In this study, we investigated the potential capacities of xanthorrhizol, a sesquiterpenoid isolated from the rhizome of *Curcuma xanthorrhiza*, as anti-inflammatory or cancer chemopreventive agent. Xanthorrhizol exhibited potent inhibitory activities against LPS-induced prostaglandin E₂ production (IC₅₀ = 0.9 μM) and nitrite formation (IC₅₀ = 4.6 μM) in cultured RAW264.7 cells. Using western blot and RT–PCR analysis, xanthorrhizol showed the suppression of COX–2 and iNOS protein expression, and COX–2 mRNA expression in a dose–dependent manner. In addition, xanthorrhizol also suppressed matrix metalloproteinase–2 (MMP–2) mRNA expression in human fibrosarcoma cells, and possessed growth inhibitory activities in colon cancer cells. These findings suggest that xanthorrhizol might be a potential lead candidate for anti-inflammatory or cancer chemopreventive agent.

[PD2–34] [10/17/2002 (Thr) 09:30 – 12:30 / Hall C]

Antioxidative activity of compounds from cultivated Phellinus linteus

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Phellinus linteus has been used as anti-tumor and immuno stimulating agents in folk remedies. From precipitate of MeOH ex. by activated guided fractionation, 5,8-epidioxy ergosta-6,22-dien-3ol, palmitic acid, linoleic acid, and methyl linolate, 3,4-dihydroxybenzoic acid methylster and 4-(3’4’-Dihydroxyphenyl)-3-buten-2-one were isolated. DPPH method was used to examine of antioxidative activity of the isolated compounds. As the result, 3,4-dihydroxybenzoic acid methylster, and phenolic compound, 4-(3’4’-Dihydroxyphenyl)-3-buten-2-one were found to be a scavenger of 1,1-diphenyl-2-picrylhydrazyl radical.

[PD2–35] [10/17/2002 (Thr) 09:30 – 12:30 / Hall C]

*In vitro* antioxidant triterpenoids from *Prunus serrulata* var. *spontanea*

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