

fractionation. The gross structures were established based on NMR and MS analysis. The stereochemistry was defined by combined use of NMR, CD spectroscopy, or chemical degradation, optical rotation. The compounds were evaluated for cytotoxicity against five human tumor cell lines to exhibit moderate to significant activity.

[OD-2] [ 04/19/2002 (Fri) 15:10 - 15:20 / Hall A ]

### Curtisians block the neurodegeneration by neurotoxin through iron chelation

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Among the neuroprotective approach for stroke treatment, calcium-induced excitotoxicity was widely accepted as a key event after cerebral ischemia. Activation of excitatory receptors by glutamate increase  $Ca^{2+}$  entry into neurons and accumulation of the  $Ca^{2+}$  into mitochondria followed oxidative damage leads to the cell death. To select neuroprotective agents, we concentrated on antioxidants with lipid peroxidation inhibitory activity. In our continuing investigation for lipid peroxidation inhibitors from mushroom extracts, we have isolated *p*-terphenyls named curtisians from *Paxillus curtisii*. Curtisians showed very significant lipid peroxidation inhibition activity, especially in lipid peroxidative assay system used iron as oxidant, comparing with superoxide and DPPH radical scavenging effects. It suggested that curtisians were implicated in iron chelating properties.

In the present study, we have investigated the mode of action of curtisians including superoxide and DPPH radical scavenging activity, neuronal cell protective activity in mouse cortical cell cultures, and iron-chelating activity using DNA single strand breakage method. The neuroprotective effect of iron chelator desferrioxamine in the hypoxia-ischemic immature mouse brain recently reported supported the fact that iron chelation was a prominent effect of curtisians. In conclusion, our results suggested that neuroprotective activity of curtisians would act as an iron chelator but not as a free radical scavenger.

[OD-3] [ 04/19/2002 (Fri) 15:20 - 15:30 / Hall A ]

### Diagnostic Patterns of Capillary Electrophoretic Urinary Nucleoside Profiles from Patients with Thyroid cancer

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An efficient capillary electrophoretic profiling method in micellar electrokinetic capillary chromatography (MEKC) mode was combined with simple pattern recognition methods for the correlation between urinary nucleosides and thyroid cancer. For the urinary nucleoside profiles, free nucleosides were extracted by SPE in affinity mode with the subsequent analysis by MEKC. A total of 15 nucleosides were positively identified urine samples from patients with thyroid cancer and normal subjects studied. Multivariate statistical analyses appropriate for the correlation between urinary nucleosides profiles and thyroid cancer was investigated. The present nucleoside profiling and simple pattern recognition methods appear to be useful for the comparative analysis of urinary nucleosides among groups of normal subjects and patients with thyroid cancer.