

In this report, water-, treated water- and ethanol-extracts of Pini resina, and water-extracts of branches of Mori albae were prepared and growth-inhibitory effects of these extracts, mixtures of extracts and sodium chloride against some representative oral bacteria were estimated by using agar diffusion methods and standard disk susceptibility testing procedures. In addition, dentifrice preparations containing these samples were also tested. The tested bacteria included Streptococcus mutans, Streptococcus sanguis, Actinomyces viscosus and Lactobacillus acidophilus for the agar diffusion methods and only S. mutans was used for the disk susceptibility tests.

MIC (Minimal Inhibitory Concentration) data of the tested samples were ambiguous to interpret due to the low solubility of these samples except the case of sodium chloride. Qualitative data from disk susceptibility test with ethanol-extracts of Pini resina suggested some potential applicability of this sample to the prevention of the periodontal diseases.

From this study, the following conclusions were made: In salt containing dentifrice, MIC is 5% (w/v%). 50% ethanol extracts are most inhibiting extracts on S. mutans, it was proved by performance standards for antimicrobial disk susceptibility tests. In Pini resina and treated Pini resina solution, its inhibition diameter is significantly equal to inhibition diameter of 1% chlorhexidine gluconate in 6.25, 12.5, 25 µg inoculation.

Pini resina and treated Pini resina extracts, Pini resina and treated Pini resina extracts containing dentifrice might be useful for elimination of periodontal disease.

[PC1-16] [ 10/19/2001 (Fri) 09:00 - 12:00 / Hall D ]

### **Mechanism of Manassantin A and B induced-differentiation in human leukemia HL-60 cell**

Seo BoRim<sup>o</sup>, Choi JungHye, Park JaeHoon<sup>1</sup>, Lee KyungTae

College of Pharmacy and medicine<sup>1</sup>, Kyung Hee University, Seoul 130-701, Korea

We already reported the differentiation inducing effect of Manassantin A and B, isolated from Saururus chinensis, in HL-60 human leukemia cells. These differentiation effect was further confirmed by esterase, phagocytosis and morphology change. The mechanism of differentiation was performed both western blot and RT-PCR techniques. Both Manassantin A and B exhibited a strong induction of mRNA and protein level of p21, CDK inhibitor at a concentration of 5 µg/ml. The mRNA and protein level of c-myc was markedly suppressed in dose and time dependent manner. These results suggest that Manassantin A and B induced differentiation of HL-60 through up-regulation of p21 and down-regulation of c-myc mRNA and protein expression.

[PC1-17] [ 10/19/2001 (Fri) 09:00 - 12:00 / Hall D ]

### **Suppression of RelA Transactivation Activity by Lignoids isolated from Saururus chinensis.**

Hwang BangYeon, Nam JeongBum<sup>o</sup>, Lee JeongHyung, Koo Taehyeon, Kim HangSub, LeeJung Joon

Anticancer Research Laboratory, Korea Research Institute of Bioscience and Biotechnology

In search for NF-κB inhibitors from natural resources, a novel dineolignan as well as four known dineolignans named manasantin A (MNSA), manasantin B (MNSB), saucermetin, and saucerneol methylether were isolated from the MeOH extract of Saururus chinensis by activity-guided fractionation. The structure of a new compound was elucidated as saucerneol B on the basis of spectroscopic evidences. All of these compounds inhibited induced NF-κB activation by LPS or TNF-α in a dose-dependent manner. The relative potency of these compounds in NF-κB reporter assay was: MNSA = MNSB > saucerneol B > saucerneol methylether > saucermetin. However, these compounds did not