Aldehyde and active form of free oxygen produced in alcohol metabolism in liver are the cause of liver cell damage. The main system of alcohol metabolism is composed of alcohol dehydrogenase(ADH), aldehyde dehydrogenase(ALDH) and cytochrome P4502E1. Alcohol dehydrogenase is reversible in alcohol metabolism. To block the backward reaction and enhance alcohol oxidation, acetaldehyde trapping agents were assayed. The assay was carried out by measuring decreasing NADH at 340nm, using acetaldcehyde and NADH as substrate and coenzyme respectively. Semicarbazide, cysteine, L-alginine, taurine as aldehyde trappping agents were tested.

**[PC2-4] [ 2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function ]**

## Characteristics of Chitosanase from Aspergillus fumigatus KB-1

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Two chitosanses produced by Aspergillus fumigatus KB-1 were purified by ion exchange and size exclusion chromatographies. Molecular weights of chitosanses were 111.23 KDa (chitosanase Ⅰ) and 23.38 KDa (chitosanase Ⅱ). The N-terminal amino acid sequence of chitosanase Ⅱ was determined: YNLPNNLKQIYDKHKGKXSXVLAK(?)GFTN. The optimum pH of the chitosanase Ⅰ and Ⅱ were 6.5 and 5.5 respectively. The optimum temperatures were 60℃ and 70℃. Two chitosanases were most stable at 10℃. The stability of chitosanase Ⅰ was declined along with increase of pH, but chitosanase Ⅱ stability was less variable to pH. Chitosanase Ⅰ was strongly inhibited by $Bi^{2+}$, $Cu^{2+}$, $Fe^{2+}$ and $Hg^{2+}$. Chitosanase Ⅱ was also inhibited by $Cu^{2+}$. Hydrolysis products of two chitosanases were analyzed by HPLC and GPC. Chitosanase Ⅰ was exo-splitting type which hydrolyzed substrate to glucosamine. Chitosanase Ⅱ showed endo-splitting mode which produced dimer, trimer and tetramer of glucosamine.

**[PC2-5] [ 2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function ]**

## Distribution of Pathogenic Genes and Molecular Typing of Yersinia pseudotuberculosis isolated from Spring Water in Seoul

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In order to investigate the pathogenic genes and genetic relationships of Y. pseudotuberculosis, we isolated 9 strains of Y. pseudotuberculosis from about 380 spring water sites in Seoul and carried out antibiotic susceptibility test, biological test and molecular typing. All isolated strains were distributed throughout the northeast area in Seoul (Mt. Bookhan, Mt. Soorak, Mt. Boolam and etc...).Antibiotic susceptibility test revealed that all the strains were susceptible to chloramphenicol, gentamicin, neomycin and amoxicillin/clavulanic acid, but were resistant to novobiocin and vancomycin.For the identification of pathogenic Y. pseudotuberculosis, the strains were analyzed for chromosomal virulence gene( inv) and plasmid-borne genes( yadA and lcrF ) by PCR., All the strains were positive for the inv, but only five strains were positive for the yadA and lcrF.Finally, RAPD-PCR and PCR-Ribotyping were carried out and the strains were grouped with 90% similarity. RAPD-PCR revealed 4 clusters of the strains and PCR-Ribotyping revealed 2 clusters. The results of these tests confirmed the view that RAPD-PCR had stronger discriminating power than PCR-Ribotyping.

**[PC2-6] [ 2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function ]**

## Antiallergic Activity of Ginsenoside $R_{h2}$

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Ginseng (the root of Panax ginseng C.A $M_{EYER}$, family Araliaceae) is frequently used as a crude substance in Asian countries as a traditional medicine. The major components of ginseng are ginsenosides, which have been reported to