demonstrate that BPA induces changes in the mouse mammary gland development that differ depending on the exposure dose.

[PC1-20] [04/19/2001 (Thr) 15:30 - 16:30 / Hall 4]

Human cord blood derived mast cells cultured with rhSCF in serum deprived culture medium, AIM-V, undergo exocytosis in response to polycationic non-immunological compounds

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Mast cells have been regarded as one of the most important effector cells in IgE-dependent allergic response. There are at least two distinct population of rodent mast cells. One is connective mast cells (CTMC) and the other is mucosal mast cells (MMC). One of the phenotypic differences of these two population is the responsibility to polycationic non- immunological compounds, such as compound 48/80 and substance P. These compounds stimulate CTMC but not MMC. Coculture of mouse bone marrow derived mast cells (BMMC) with 3T3 fibroblasts in the presence of the stromal cytokine, c-kit ligand (KL) result in morphological and functional development toward a more mature CTMC-like phenotype. On the other hand, human mast cells are divided into two phenotype by their protease expression. One is MCT which express tryptase but not chymase and the other is MCTC which express tryptase and chymase. Human skin mast cells response to polycationic non-immunological compounds and their phenotype is MCTC. It is well known that human cord blood derived mast cells (CBMC) which culture with rhSCF in serum containing media are the phenotypic mixture of MCT and MCTC but they are not activated by polycationic non-immunological compounds.
We cultured the cord blood mononuclear cells for 10 weeks with rhSCF in serum deprived media. These CBMC were MCT/MCTC phenotype as cultured in serum containing media. But they aquired the reactivity to the polycationic non-immunological compounds, such as human skin mast cells. CBMC that cultured with serum deprived media did not change their responsibility to the polycationic non-immunological compounds by coculture with human skin fibroblast, SK1059. But, in the presense of rhIL-6, these CBMC were developed toward a more mature human skin mast cell-like phenotype.

Poster Presentations - Field C2. Microbiology

[PC2-1] [04/19/2001 (Thr) 15:30 - 16:30 / Hall 4]

Alcohol Dehydrogenase Inhibitors contained in Natural Products

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Alcohol dehydrogenase(ADH) is the first main system of alcohol metabolism. The increase of the aldehyde produced by ADH may cause serious adverse effects on the liver. Therefore, using alcohol dehydrogenase inhibitors could result in beneficial pharmacological effects such as antialcohol abuse,

antidipsotropic activity and antialcohol intoxication. We found out resveratrol, daidzein, genistein, rhaponticin, rutin and quercetin as alcohol dehydrogenase inhibitors. The assay was carried out at room temperature, using 5mM ethanol and 1mM NAD+ as a substrate and coenzyme, respectively.

[PC2-2] [04/19/2001 (Thr) 15:30 - 16:30 / Hall 4]

Antiplatelet and antithrombotic activities of Yangkyuksanwha-tang

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As part of our continuing search for biological active anti-stroke agents from the herbal medicinal resources. We examined the possibility of Yangkyuksanwha-tang and its ingradients as a novel antithrombotic agents *in vitro* and *ex vivo*, and its antithrombotic effect *in vivo*.
Gardeniae Fructus, Ledebouriellae Radix and Nepetae Spica potently inhibited ADP-and collagen-induced rat platelet aggregation in a dose-dependent manner *in vitro*. Yangkyuksanwha-tang and most of its ingradients did not affect coagulation parameters as APTT, PT and TT in human plasma. However, Menthae Herba and Nepetae Spica potently protected plasma clotting. Yangkyuksanwha-tang, Lonicerae Folium, Forsythiae Fructus and Menthae Herba significantly inhibited *ex vivo* rat platelet aggregation. Yangkyuksanwha-tang, Lonicerae Folium, Forsythiae Fructus and Gardeniae Fructus showed significantly protection from death due to pulmonary thrombosis in mice.

[PC2-3] [04/19/2001 (Thr) 15:30 - 16:30 / Hall 4]

Purification and Characterization of the chitosanase from Aspergillus fumigatus KB-1

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The chitosanases produced from Aspergillus fumigatus KB-1 were purified by ion exchange and gel permeation column chromatographies. Molecular weight of the enzyme is 23.38 KDa. The N-terminal amino acid sequence was YNLPNNLKQIYDKHKGKXSXVLAXX(X is not determined). The purified chitosanase seemed to have an unique N-terminal amino sequence because chitosanases with the same N-terminal amino acid sequence were not found on NCBI's BLAST search. TLC analysis of the enzymatic reaction products showed that the chitosanase mainly produced diglucosamine, not glucosamine. Optimum pH and temperature were 5.5 and 70℃, respectively. The activities of the chitosanase were strongly inhibited by metal ions such as Cu2+ and Hg2+.

[PC2-4] [04/19/2001 (Thr) 15:30 - 16:30 / Hall 4]

Induction of glycosaminoglycan(GAG) degrading enzymes in Bacteroides stercoris HJ-15 by GAG as carbon sources

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