compound was isolated as Mulberroside A($C_{26}O_{14}H_{32}$), molecular weight 568. Mulberroside A inhibited ADH noncompetitively against ethanol or NAD+.

[PC2-2] [10/20/2000 (Fri) 15:30 - 16:30 / [Hall B]]

Inhibitory Component of Puerariae Radix on Alcohol Dehydrogenase Activity

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Puerariae Radix is one of the medicinal plants used in oriental medicine for hangover. There are several reports dealing for the pharmacological effects such as antialcohol abuse, antidipsotropic activity and antialcohol intoxication. In connection with Puerariae Radix effects, a activity-guided purification of active substance on alcohol dehydrogenase(ADH) was carried-out. The most active compound was isolated as puerarin ($C_{21}H_{20}O_9$), molecular weight 416. Puerarin inhibited ADH noncompetitively against ethanol or NAD+.

[PC2-3] [10/20/2000 (Fri) 15:30 - 16:30 / [Hall B]]

β-Glucuronidase-inhibitory tectorigenin protects CCl4-induced hepatotoxicity.

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It has been known that liver damage caused by virus or chemicals increases activity of β-glucuronidase in blood and inhibitors of this enzyme are effective to liver damage. Here we isolated β-glucuronidase inhibitor, tectoridin, from the flower of *Pueraria thunbergiana* and measured its hepatoprotective activity on CCl_4-induced hepatotoxicity of mice.

CCl_4 treatment caused drastic increases in plasma ALT, AST and LDH activities in mice. Pretreating mice with tectoridin at daily oral dose of 100mg/Kg for 3 day significantly suppressed the CCl_4-induced increase in plasma ALT and AST activities. The inhibitory effect of tectoridin was much more potent than dimethyl diphenyl bicarboxylate (DDB), a synthetic intermediate of schizandrin C. However when tectoridin was intraperitoneally administrated to mice, it did not show hepatoprotective activity. When tectorigenin was intraperitoneally administrated to mice, it exhibited hepatoprotective. In addition when tectoridin was incubated with human intestinal bacteria, it was transformed to tectorigenin. These results suggest that tectoridin, which is a inhibitor of β-glucuronidase, should be a prodrug for hepatoprotective.

[PC2-4] [10/20/2000 (Fri) 15:30 - 16:30 / [Hall B]]

Antiplatelet and antithrombotic activities of Chungpesagan -tang

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As part of our continuing search for biological active anti-stroke agents from the medicinal resources. We examined the possibility of Chungpesagan-tang and its ingradients as a novel

antithrombotic agents *in vitro* and *ex vivo*, and its antithrombotic effect *in vivo*. Chungpesagan-tang, Rhei Rhizoma and Scutellariae Radix potently inhibited ADP-, collagen-induced rat platelet aggregation in a dose-dependent manner *in vitro*. Chungpesagan-tang and most of its ingradients did not affect such coagulation parameters as APTT, PT and TT in human plasma. However, Rhei Rhizoma potently protected plasma clotting. Chungpesagan-tang treated group was significantly inhibited platelet aggregation in orally administered rats *ex vivo*. Puerariae Radix and Rhei Rhizoma also showed significant prolongation of tail bleeding time in conscious mice. Chungpesagan-tang showed significantly protection from death due to pulmonary thrombosis in mice.

[PC2-5] [10/20/2000 (Fri) 15:30 - 16:30 / [Hall B]]

Purification and Characterization of novel salt-inducible heparinase II from Bacteroides stercoris HJ-15

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Bacteroides stercoris HJ-15, which is human colon gram-negative rod cell, has been known to degrade heparin, acharan sulfate and chondroitin sulfate. Recently we found to produce new five heparinases: one heparinase I , three heparinase II , one heparinase III . Among three heparinase II , one is a salt-inducible enzyme. In the present study, we tried to purify the enzyme. *Bacteroides stercoris* HJ-15 was cultured in 100L of tryptic soy broth containing hepain, collected, sonicated and centrifuged at 18,000rpm for 70min at 4℃. From the supernatant, the salt-inducible heparinase II was purifed to homogeneity by QAE-cellulose, DEAE cellulose, CM Sephadex C-50, hydroxyapatite and phosphocellulose. The specific activity of the purified heparinase II was 81.3㎛ole/㎖/㎎. Its molecular weight was 94KDa. The optimal activity was observed to be pH 7.3 containing 50mM KCl. Cu^{+2}, Ni^{+2}, Co^{+2}, Fe^{+2} and Zn^{+2} inhibited the enzyme activity. These findings suggest that the biochemical properties of the purified enzyme should be different from the previously purified heparinase II .

[PC2-6] [10/20/2000 (Fri) 15:30 - 16:30 / [Hall B]]

Purification and Characterization of Staphylococcus epidermidis Urease

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The multi-subunit urease from *Staphylococcus epidermidis* ATCC12228 was purified 1,127-fold by ion exchange and gel filtration chromatography. The enzyme activity was highest when the cells were grown up to late exponential phase in LB supplemented with 50μM nickel chloride.

The specific activity of the purified urease was 993.8μmol urea degraded min^{-} . The enzyme was shown to have a M_r of 409,000 and consist of three different subunits of 73.3, 22.7, and 13.8 kDa. The Michaelis constant (K_m) was 8.9 mM urea. Activity gel-staining of the native urease with urea and cresol red revealed two major peptide bands.

[PC2-7] [10/20/2000 (Fri) 15:30 - 16:30 / [Hall B]]

Expression control of the dnak operon in Streptococcus pneumoniae