Ca2+-free WP and the aggregation was examined. The aggregation was recovered by the addition of CaCl2 at the concentration of 1mM by 70-80%, whereas it was inhibited by EGCG in a concentration-dependent manner.
These results suggest that the influx of extracellular calcium is important in the platelet aggregation and EGCG inhibit the calcium influx from the medium.

[PA3-13] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Regulation of Caspase Activation and cis-diamminedichloroplatinum(II)-induced cell death by KC-1

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Cisplatin (cis-diamminedichloroplatinum, CDDP) is a widely used antineoplastic agent, cisplatin may cause acute renal failure after even a single dose. The underlying mechanism of this nephrotoxicity is still not well known. LLC-PK1 cells express many characteristics of renal proximal tubule epithelia. We report here the use of this cell line to investigate the regulation of caspase activation by KC-1 and the possible mechanisms of alleviative effect of CDDP-induced renal toxicity by KC-1 cisplatin. First, The time- and dose dependency of cisplatin-induced cytotoxicity were established by exposing LLC-PK1 cells to different concentration (0.1 to 100 uM) of cisplatin from 4 to 48 hours. As a result, the cell viability of the 48 Hr-exposured cell has been shifted from 69.5 ± 2.68 (%) at 10 uM to 9.5 ± 1.01 (%) at 50 uM. Second, the protective effect of KC-1 against cisplatin-induced cytotoxicity was studied. The influence of KC-1 was determined by measuring the cell viability. The data showed that the IC50 of the 48 hrs exposured cell has been shifted from 15 uM in an CDDP single treatment to 30 uM in an KC-1 with an range of 50-100 uM. Third, A family of intracellular cysteine proteases, the caspases, is often activated and plays an important role in the dismantling of cell structures during apoptosis initiated by both the external and internal pathways. caspase-3, previously called CPP32/Yama/Apopain, is an ICE-like protein which could be detected in high rate during an apoptosis, as the result of an overexpression. Recently, we are trying to demonstrate an order of the pathway by providing evidence of the regulation of caspase activity and cisplatin-induced cell death pathway by KC-1.

[PA3-14] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Effects of Phellinus linteus extracts on immune function in normal and cyclophosphamide-treated mice.

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The purpose of this research was to investigate immunnomodulating effects of Phellius linteus hot water extract(PL-W) and methanol extract(PL-M) in normal and cyclophosphamide(CY)-treated mice. PL-M or PL-W was adminstered p.o. single(400, 800, 1600 mg/kg) or once a day for 5 days in normal and CY-treated mice, and then splenic IgM plaque forming cells(PFC) against SRBC was assayed. IgM PFC against SRBC was significantly and dose-dependently increased as compared with normal group. Mouse splenocytes was incubated in the presence of various concentration of PL-W(0.5, 1.0, 2.5, 5.0, 7.5 mg/ml) and PL-M (0.1, 0.5, 1.0, 2.5, 5.0 mg/ml) and after 48hrs, splenocyte proliferation(SP) was assessed in vitro by MTT assay. PL-W and PL-M increased significantly and dose-dependently the proliferation of normal mouse splenocytes. PL-M showed higher activity than PL-W. We also examined the effect of Phellius linteus extract on the mitogen (Con A, LPS)-induced splenocyte proliferation. PL-W and PL-M inhibited CY-induced suppression of SP against mitogen. These results suggest that Phellius linteus extract has immunostimulative

effect and activity to inhibit immunotoxicity induced CY.

[PA3-15] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Head Space-Solid Phase Microextraction analysis for methamphetamine in Urine.

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Head Space Solid-Phase MicroExtraction (SPME) is a relatively new technique that allows the samplings of small amout of substances from an aqueous medium and direct GC and GC/MS analysis.
It's an simple and rapid method for quantifing and qualifing various drugs and chemicals without solvent extraction.
This paper describes the application of head space SPME to methamphetamine(MA) , amphetamine (AM) and major metabolite analysis in urine by GC-TSD.
A vial containing a urine sample, internal standard and potassium carbonate was heated at 80 ℃ for 2i5 mn.
The extraction fiber in the needle of a SPME was exposed for 4 min in the head space of the vial.
The standard cureves were a straight line between 6.7 and 8.3 ppm for AM and 0.83-6.7 ppm for MA.
The calibration curves showed correlation coefficients of 0.996 for both drugs.
The proposed method is also suitable for the analysis of amphetamine-like compounds in urine.

[PA3-16] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Measurement and Distribution of Cadmium, Lead, Mercury, Selenium and Zinc in Human Tissues

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In the past, particular interest has been attracted to the distribution and interaction between the toxic and essential elements in animals and human, since such interactions might have adaptive implications to environmental pollution. We previously have reported the distribution of 15 elements in 91 Korean cadavers. The current study was performed for monitoring of toxic elements to the human tissues and to assess the correlation between toxic and essential elements. Toxic elements, such as Cd, Pb, Hg, and essential elements such as Se and Zn, were analyzed on internal organs of 82 Korean cadavers. The tissues were digested with microwave digestion system and elements were determined by ICP-AES. High correlation between age and elemental concentration was observed in the following cases : Cd in kidney cortex and kidney medulla ; Pb in liver and testis ; Hg in cerebrum and heart. A significantly high correlation between Hg and Se was observed in all tissues tested, while a significant correlation between Pb and Se was observed in liver, kidney cortex, kidney medulla, heart, lung, spleen, testis and bone. The correlation between Cd and Zn was significant in liver, kidney cortex, kidney medulla, lung, testis and bone. These results indicate that the distribution of toxic elements is similar to that of essential elements in all tissues.

[PA3-17] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Estrogenic activities of alkylphenols and curcumine derivatives

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