contact pressure induced low repeatability. In order to improve repeatability, the suction pump head was applied to the probe. It ensured constant pressure on the skin and resulted in improved repeatability. In vivo spectra were collected over the spectral range 1100～1750 nm. Partial least squares regression (PLSR) was applied for the calibration and validation for the determination of blood glucose.

[OD4-2] [2003-10-11 11:45 - 12:00 / ASEM Hall Meeting Room 203]

Dertermination of Alkylphenols, Chlorophenols and Bisphenol A in Various Samples by Freezing Filtration and GC/MS-SIM

Kim Hyub°
Sangju National University, TIC

A method for determination 11 endocrine disrupting chemicals of phenols in various samples was deloped.The alkylphenols, chlorophenols and bisphenol A were determined by gas chromatography/mass spectrometry-selected ion monitoring (GC/MS-SIM) followed by two work-up methods for comparison; isobutoxycarbonyl (isoBOC) derivatization method and tert-butyldimethylsilyl (TBDMS) derivatization method. Eleven endocrine disrupting chemicals (EDCs) of phenols in biological samples were extracted with acetonitrile and then acetonitrile layer was refrigerated at -60℃ for 2 hours (freezing filtration). Also, solid-phase extraction (SPE) was used to XAD-4 and subsequent conversion to isoBOC or TBDMS derivatives for sensitive analysis with the GC/MS-SIM mode.

[OF1-1] [2003-10-11 12:00 - 12:15 / ASEM Hall Meeting Room 203]

A survey analysis of Curriculum Reform Task Force of Yeungnam University

Yoo Bong Kyu°, Yong Chul Soon, Choi Han-Gon, Curriculum Reform Task Force of Yeungnam University
College of Pharmacy, Yeungnam University

We performed this survey to hear Yeungnam University Graduates' opinion on the current curriculum for the purpose of creating an education system of "practically competent person" instead of simply "competent person". Questionnaire was made up of 13 multiple-choice questions and 1 descriptive question by Curriculum Reform Task Force of Yeungnam University. The survey was administered to randomly chosen 50 graduates by e-mail on August 1, 2003 and was collected between August 1 and August 10, 2003 for the analysis of respondent's reply. The survey revealed that the "relatedness" of their current job and what they have studied in the University was greater in recent graduates (within the past 3 years) than earlier graduates (more than 3 years ago): 1.16 versus 1.20, 1 being "very related" and 5 being "not related at all". In "helpfulness" of what they have studied in the University, recent graduates responded with negative answer compared to earlier graduates: 2.56 versus 1.8, 1 being "very helpful" and 5 being "not helpful at all". Also, in "diversity" of the curricula they, recent graduates responded more negatively than earlier graduates: 3.32 versus 3.08, 1 being "very diverse" and 5 being "not diverse at all".We concluded that recent graduates are working at major-related job areas compared to the earlier graduates, however, they appear to be more dissatisfied with "helpfulness" and "diversity" of what they have learned in the University. Based on this survey we recently have reformed current major-curricula with emphasis on improvement of "helpfulness" and "diversity". The reformed curricula will be administered beginning spring semester of 2004.

[OA1-1] [2003-10-11 09:30 - 09:45 / ASEM Hall Meeting Room 208]

Inhibitory effect of DA-125 on cancer metastasis by downregulating MMPs and CAMs

Park Hyen Joo°, Hwang Hye Jin, Kim Won Bae, Kim Soon Hoe, Lee Sang Kook
College of Pharmacy, Ewha Womans University, Seoul 120-750, Korea, Dong-A Pharmaceutical Co. LTD., 47-5, Sanggal-ri, Kiheung-up, Yongin-si, Kyunggi-do, 449-905, Korea

Matrix metalloproteinases (MMPs) play an important role in tumor invasion and metastasis by extracellular matrix degradation. To analyze the effect of DA-125, a anthracyclin derivative, on the invasion or metastasis of cancer cells the expression of matrix metalloproteases (MMPs) was investigated in human fibrosarcoma HT1080 cells by RT-PCR or gelatin zymographic methods. As a result, DA-125 suppressed the expression of MMP-2 and 9 as well as tissue inhibitor of metalloproteinase-1 (TIMP-1), TIMP-2 and MT1-MMP with a time- and dose-

dependent manner. In addition, DA-125 inhibited cancer cell migration and colony formation, and also exhibited the inhibitory activities of invasion and motility with a matrigel and type I collagen assay. These results suggest that DA-125 inhibits tumor cell invasion and metastasis by suppression of MMPs and TIMPs in tumor cells. Further, cell adhesion molecules (CAMs) such as vascular cell adhesion molecule-1 (VCAM-1) and intercellular cell adhesion molecule (ICAM) have been reported to play an important role in cancer metastasis via the adhesive interaction between tumor cells and endothelial cells. We examined the effects of DA-125 on CAMs expression and its transcriptional regulatory mechanism in human microvascular endothelial cells (HMEC-1). Dose-dependent suppression of CAMs mRNA levels was observed in DA-125-treated HMEC–1. Taken together, anti-metastatic and anti-invasive effect of DA-125 might be an additional mechanism as a promising anticancer agent.

[OA4-1] [2003-10-11 09:45 - 10:00 / ASEM Hall Meeting Room 208]

Dihydrosphingosine 1-phosphate: New Biomarker for Fumonisin B1 Toxicity

Lee Yong-Moon°, Yoo Hwan-Soo, Oh Sei-Kwan, Lee Eun-Young, Kihara Akio, Igarashi Yasuyuki
College of Pharmacy, Chungbuk National University, College of Medicine, Ehwa University, Faculty of Pharmaceutical Sciences, Hokkaido University

Fumonisins are a family of mycotoxins produced from Fusarium verticillioides. Most of fumonisin B1 (FB1) toxicities can be explained by its ability to alter sphingolipid metabolism by inhibiting ceramide synthase. At least, the elevation in dihydrosphingosine (DHS) mediates the earliest toxicity of FB1. Some tissues such as kidney and liver, may be most affected by FB1 because they shows high rates of de novo sphingolipid synthesis. Recent review on FB1 toxicity by A.H. Merrill Jr. et al. suggested the possible role of dihydrosphingosine 1-phosphate (dihydroS1P), which sometimes elevated in cell- or tissue specific manners. In this study, we demonstrated that FB1 accumulated not only DHS but dihydroS1P, which was typically observed in FB1-sensitive pig kidney epithelial cells (LLC-PK1 cells). Moreover, dihydroS1P was suggested as a new indicator for FB1 exposure in rat plasma while sphingoid bases ratio was still useful in other organ tissues. For further study to elucidate the toxic mediator of FB1, we used mouse F9 embryonal carcinoma cells, which exhibits SPL -/- stable transformant (SPL lyase KO) and murine S1P phosphohydrolyase (mSPP1) stably overexpressed transformant (SPL lyase KO + mSPP1). Surprisingly, overexpression of mSPP1 in SPL -/- stable transformant showed strong resistance to FB1. Conclusively, the FB1 toxicity may be mainly mediated by endogenous dihydroS1P, which possibly exerted antagonistic action to S1P in intracellular mode.

[OB3-1] [2003-10-11 10:00 - 10:15 / ASEM Hall Meeting Room 208]

In vivo evidence for brain-to-blood efflux transport of taurine and regulation of this transport by tumor necrosis factor-α at the blood-brain barrier

Lee Na-Young°, Kang Young-Sook
College of Pharmacy, Sookmyung Women's University

The purpose of this study is to examine whether the efflux system for taurine from brain to blood is present on the blood-brain barrier (BBB) using the brain efflux index (BEI) method and taurine transport system is regulated by CNS cell damage with oxidative stress agent such as diethyl maleate (DEM) or tumor necrosis factor-α (TNF-α) in vivo. [^{3}H]Taurine was microinjected into parietal cortex area 2 (Par2) of the rat brain, and was eliminated from the brain with efflux transport rate of 1.22 10^{-2}/min, and the process is saturable with a K_m of 43.5 μM. This process was significantly inhibited by taurine transport inhibitors, such as unlabeled taurine, β-alanine, betaine, nipecotic acid and γ-aminobutyric acid (GABA). In addition, the effect of DEM or TNF-α on [^{3}H]taurine transport was investigated. [^{3}H]Taurine uptake was increased and efflux was reduced by pre-treatment with DEM or TNF-α. Also, [^{3}H]taurine efflux was decreased by TNF-α in time- and dose-dependent manner. In conclusion, the efflux pump for taurine at the BBB reduced taurine concentration in the brain interstitial fluid and this process was carrier mediated and also, was regulated by oxidative cell damage.

[OC1-1] [2003-10-11 10:15 - 10:30 / ASEM Hall Meeting Room 208]

Augmentation of constitutive nf-κb activation by bcl-2 in pc12 cells: implications for