G101 Cytokine-mediated suppression of cytochrome P450 1A1 in Hepa-1c1c7 cells by Extract of larvae of a Allomyrinma dichotoma .

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This study investigated the effects Extract of larvae of a *Allomyrinma dichotoma* (ADE) on the regulation of cytochrome P450 (P450) 1A1 expression in an in vitro model, using murine hepatoma cell line Hepa-1c1c7 and murine macrophage cell line RAW 264.7 cell cultures. ADE added directly to Hepa-1c1c7 cells had no effect on 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-induced P450 1A1-specific 7-ethoxyresorufin O-deethylase (EROD) activity. However, TCDD-induced EROD activity and P450 1A1 mRNA levels were markedly suppressed when Hepa-1c1c7 cells were cultured with ADE-treated conditioned media from RAW 264.7 in a dose-dependent manner. Concomitant treatment with ADE and pentoxifylline, a TNFalpha synthesis inhibitor, to RAW 264.7 cells decreased the suppressive effects of OE on TCDD-induced EROD activity. In ADE-exposed RAW 264.7 cell cultures, TNFalpha and IL-6 levels increased in a dose-dependent fashion. When antibodies to TNFalpha or/and IL-6 were added to ADE-treated conditioned media from RAW 264.7, the suppression of EROD activity was inhibited. These results suggested the suppression of P450 1A1 by ADE was mediated exclusively by TNFalpha and IL-6, released from macrophages.

G102 Expression of Allogenic Class II MHC and B7.1 (CD80) in a B-Lymphoma Cell Line Enhances Anti-tumor Immunity

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We expressed allogenic class II MHC antigen and B7.1 co-stimulatory molecule in A20 B-lymphoma cells to test their efficacy as immuno-stimulating adjuvant agents in inducing tumor-specific immunity. The transduction of allogenic $I-A^b$ and chain genes into A20 cell results in surface expression of allogenic class II MHC molecules. The expression of allogenic class II MHC antigen enhanced the stimulating capacity in mixed lymphocyte reaction and in vitro CTL generation against parental cells. The B7.1 gene, which is known to be a most important co-stimulatory molecule, was also transduced and expressed in A-20 cells either alone or in combination with $I-A^b$. The B7.1 transduction alone leads to similar in vitro immune enhancing effect as $I-A^b$. When both $I-A^b$ and B7.1 genes were transduced, the in vitro immunostimulating capacity was further enhanced. Finally, we also tested the A20 cells transduced with I-Ab and/or B7.1 for their efficacy as preventive tumor vaccines in vivo. The results indicate that the A20 cells expressing both $I-A^b$ and B7.1 are more potent vaccine compared to the cells expressing either molecule alone.

G103 Establishment of screening sytems for cellular protiens interacting with HCV proteins

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Studies of immune response to HCV infection face many difficulties because viral in vitro proliferation system is not yet established and laboratory animal model of practical use did not developed. Despite of immune response to HCV, patients lose control over virus and suffer chronic liver

disease. To understand the viral immune escape mechanism, the cellular proteins interacting with viral proteins should be screened systematically. CD81 was proposed as a candidate of viral envelope protein E2. In this research, we are going to screen cellular proteins bind to HCV E2, Core proteins. We produced secretory E2/hIgG chimera to investigate how to affect in cell on the bilateral action between E2 and CD81. Other receptor screening will be performed with the chimeric protein. Searching the cellular proteins interacting with E2 and Core proteins will be performed through Yeast two hybrid screening work in which the baits are HCV E2 and Core antigens.

G104 Influence of Nramp1 Expression in the Murine Macrophage line RAW264.7

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In mice, the Bcg/Nramp1 gene of the chromosome 1 has been implicated in natural resistance or susceptibility to infection by intracellular microbes. Nramp1 encodes an integral membrane protein abundantly expressed in the endosomal-lysosomal compartment of macrophages and is recruited to the phagosomal membrane following phagocytosis. To devise an in vitro assay for Nramp1 function, we previously introduced a wild-type Nramp1G169 cDNA into RAW264.7 macrophge cell line, which contains and endogenous, nonfunctional mutant allele in Nramp1. As nitric oxide(NO) has been reported to be a potent antimycobacterial agent produced by macrophges, which is also regulated by Nramp1, the in vitro ability of macrophges to produce NO in response to infection was compared. As infected, transfected Nramp1 RAW264.7 produced higher amounts of NO than nontransfected RAW264.7. These results indicate that Bcg/Nramp1 gene regulate macrophge resistance or susceptibility to virulent M. marinum by a differential capability of these cells to produce NO.

G105 만성C형간염 바이러스 감염환자에 있어서 IFN치료효과와 HCV 유전자형 및 혈청형

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간암을 일으키는 중요한 병인으로 인식되는 C형간염바이러스는 숙주의 면역반응을 피하여 만성 지속성 감염을 잘 일으키는 특징을 가지고 있어, HCV감염 환자에서 진단체계의 개선이 필수적이며 조기진단, 질병의 경과 및 치료에 대한 반응을 파악함이 중요하다. 특히 유전자형의 분석은 치료효과와 예후의 판정, 병인분석에 유용하다. 혈청형 분석은 신속성과 간편성으로 임상적으로 유용성이 높을 것으로 기대되며, 이에 면역 Blot법과 RT-PCR-Hybridization 검사를 비교하고, NS4 peptide를 이용한 혈청형법과 Line Probe assay를 이용한 유전자형법을 비교했고, 인터페론 치료의 효과와 유전자형의 발현관계를 규명코져 했다. 면역 blot법의 진양성율(88.6%),RT-PCR-Hybridization 법과의 일치율(89.3%), 한국인의 HCV 혈청아형은 ?형(57.1%), ?형(42.8%), 유전자 아형은 대부분 1b와 2a로 구성되었다. 혈청형과 유전자형 검사의 일치율은 85.7%, 인터페론 치료효과는 완전관해(40.8%)불완전 관해(10.2%), 무반응은(48.9%). HCV 스크리닝에는 면역블롯법, 확진으로는 RP-PCR-Hybridization을 시행하는 것이 추천된다. IFN Efficacy, HCV Genotyping and Serotyping in Patients with Chronic Hepatitis C Soon Mo Chang* and Sook Jae Seo Department of Biology, Kyungsang National University To determine the clinical usefulness of Immuno Blot test and RT-PCR-Hybridization test, 160 samples from the patients with chronic HCV infection were analyzed by two test. true positive rate of immuno blot test was 88.6% and concordance rate was 89.3%. In