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

Soo-Jin Kim*, Hayyoung Lee[1], Kwang Il Kang[1], Young Sang Kim[2], and Sang-Gi Paik

Department of Biology, [1]Biochemistry, [2]Institute of Biotechnology, College of Natural Sciences, Chungnam National University, Daejeon 305-764, Korea

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

장순모*, 서숙재

경상대학교 생물학과

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

49 cases stuided with genotypes and serotype, genotype 1b, 1b/2b, 2a, 2a/2c and 2b were 51, 2.0, 34.6, 8.1 and 4.0%. There were no significant difference in responce to alpha-interferone tretment of HCV infection with the subtype 1b or 2a. The serotypes ?type and ?type were 57.1% and 42.8%, respectively and mached with genotypes in 85.7%, and seemed to be easy to perform. This study demonstrates that immunoblot assay is more useful to screen the HCV infection and RT-PCR-Hybridization test is choice of confirming the HCV infection in patients with positive immunoblot results, and that serotype test was preferred to genotype for monitoring progression or response to treament.

G106 NKT CELL ASSOCIATED IMMUNE RESPONSE: ENHANCED TUMOR VACCINE EFFECT

Changwan Hong[1*], Wonhee Lee[1], Jihye Choi[1], Sooyoung Kim[1], Rho Hyun Seong[2] and Se-Ho Park[1]
[1]Graduate School of Biotechnology, Korea University, Seoul 136-701 [2]Institute of Molecular Biology and Genetics and School of Biological Sciences, Seoul National University and International Vaccine Institute, Seoul 151-742

NKT cells are a subset of novel population, which is believed to perform immune-regulatory functions. We found that activation of NKT cells at the time of immunization can greatly enhance cytotoxic killer cell associated immune responses. In this report, tumor vaccine against B16 melanoma was directly investigated under the condition where NKT cells were specifically stimulated. Treatment of alpha-galactsylceramide (*α*GalCer), a specific NKT cell antigen, at the time of tumor vaccination showed great enhancement of viability upon live tumor (B16) injection in mouse model.

G107 Prostaglandin E2 induce hypermethylation of the 5'regulatory region of IFN- gene by elevation of the intracellular cAMP and NO in the human Jurkat T-cells

Sung Min Ju and Won Sin Kim
Division of life Science, College of Natural Sciences, Wonkwang University

Expression of cytokine by T lymphocytes is a highly balanced process, involving stimulatory and inhibitory intracellular signalling pathways. Prostaglandin E_2 (PGE_2) induced a strong inhibition of IFN- mRNA expression and this inhibition was assumed to be related to intracellular cAMP concentration and nitric oxide generation. However, it remains to be clarified how these factors inhibit production of IFN-. In this context, we examined the relationship of the inhibitory effects of PGE_2 and DNA methylation on INF- gene expression in the human Jurkat T-cells. The CpG islands within the TATA proximal regulatory element of the IFN- gene were methylated by treatment of the Jurkart T-cells with PGE_2. The methylation was not induced by treatment of the Jurkart T-cells with db-cAMP or SNAP alone. However, IFN- gene was methylated by treatment of the Jurkart T-cells in combination with db-cAMP and SNAP. These results suggested that PGE_2 inhibit IFN- production by inducing hypermethylation of IFN- gene through elevation of the intracellular cAMP and NO in the human Jurkat T-cells.

G108 Role of SRG3 in the Inhibition of Glucocorticoid-Induced Apoptosis of Immature Thymoma Cells in Response to TCR/CD3 Signaling

Myung-gon Ko, Jiho Jang,and Rho H Seong
Institute of Molecular Biology and Genetics, College of Natural Sciences, Seoul National University