D009

Cell Density-Dependent Regulation of Quorum Sensing System in the Mixture of *Escherichia coli, Pseudomonas aeruginosa* and *Staphylococcus aureus.*

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Quorum sensing is a cell-density-dependent bacterial intercellular signaling mechanism that enables bacteria to coordinate the expression of certain genes The purpose of this study artificially makes quorum sensing mechanism related biofilm forming by mRNA expression rate We have done quantitative analysis of mRNA expression of gene related autoinducer synthesis This quantitative analysis was measured by competitive RT-PCR First, we cloninged *las*I and *rhl*I in *Pseudomonas aeruginosa, yga*G in *Escherichia coli* and *lux*S in *Staphylococcus aureus* Then competitor genes of each target genes were cloned Second, we mixed three strains that were *Pseudomonas aeruginosa, Escherichia coli, Staphylococcus aureus* in LB broth And then we spreaded mixed culture on LB agar plate and incubated at 37℃. Sampling time was 1, 3, 5, 7 and 9 days Third, we purified total RNA from bacteria by trizol methods and then analyzed mRNA expression of *las*I, *rhl*I, *yga*G and *lux*S using the competitive RT-PCR

D010

Quantitative Analysis of *yga*G, *las*I, *rhl*I and *lux*S Gene Involved in Quorum Sensing in Infected Foley Catheter by Using Competitive RT-PCR.

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Catheter-associated urinary tract infection (CA-UTI), which is frequently occurring in the patients with indwelling Foley Catheter, can cause higher mortality in immune deficient patients On catheter matrix, CA-UTI is form with biofilm by infected bacteria when catheter matrix is filled with host proteins and microbial percolations Formation of biofilm is involved quorum sensing mechanism between infected bacteria and it has resistant to immune system of host and antibiotics These properties of biofilm prevent to treatment of CA-UTI with antibiotics Therefore, we need to study of quorum sensing mechanism and it's related bacteria.
In this study, *Escherichia coli*, *Pseudomonas aeruginosa* and *Staphylococcus aureus* were isolated from infected catheters We detected *yga*G(from *E coli*), *las*I(from *P aeruginosa*), *rhl*I(from *P aeruginosa*), *lux*S (from *S. aureus*) gene and it's competitors were previously made to perform competitive RT-PCR Then, we executed quantitative analysis of mRNA which was isolated from infected catheter of patients using competitive RT-PCR

D011

Cell Therapy Using CD8 T Cells Protected Mice Against Influenza A Virus Infections

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A CD8 T cells were administered by intranasal instillations to mice after inoculation of the influenza virus A/PR 8/34 (H1N1) strain by the same route The CD8 T cells ensured some protection against the experimental influenza infection. A significant decrease of the mortality rate and a significant increase of the rate of survival as compared to the untreated controls. In all compartments specific antibodies of IgG class were estimated by means of an enzymimmunoassay The results support the concept of a CD8 T cells therapy

D012

Cell Therapy Using CD4 T Cells Protected Mice Against Salmonella Typhymurium Infections.

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A CD4 T cells were administered by intranasal instillations to mice after inoculation of salmonella typhimurium(UK1) strain by the same route The CD4 T cells ensured some protection against the experimental salmonella infection A significant decrease of the mortality rate and a significant increase of the rate of survival as compared to the untreated controls In all compartments specific antibodies of IgG class were estimated by means of an enzymimmunoassay. The results support the concept of a CD4 T cells therapy