treat rheumatism by moxibustion in Chinese medicine. A small carbohydrate fraction of approximately 1,000 dlaton from the water-soluble extract of the Artemisia Folium promoted survival of the mouse thymocytes in culture. A mouse gene array study suggested that the fraction might modulate Fas/FasL dependent apoptotic cell death and thus had influence on the survival of the thymocytes in culture. RT-PCR analysis confirmed the down-regulation of the Fas gene by the treatment, supporting that the fraction modulated thymocyte death by suppressing the Fas gene expression.

[PB4-8] [2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function]

Effects of anti-inflammation and cell protection through biphenyl dimethyl dicarboxylate on Rat Microglia

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Biphenyl dimethyl dicarboxylate (DDB) is a by-product produced in process of synthesizing Schizandrin-C. Generally, DDB has known to protect hepatocytes and to decrease the index of liver enzyme (e.g. GOT and GPT) in chronic hepatitis. The present study was aimed to demonstrate whether DDB can protect the brain cell, especially the Alzheimer brain in vitro. As Alzheimers disease can be induced by activated microglia, a macrophage in the brain, through Abeta peptide (Aβ) produced from amyloid precursor protein (APP). Results showed that DDB attenuated the production of proinflammatory repertoire such as IL-1β, TNF-α, and Nitric oxide(NO) in 10μM to 25μM of DDB with the highest pick value at 24h. The attenuation was started from 6h and lasted up to 48h with clear evidences of cell protection (DAPI). The study suggested that DDB plays a important role in protecting the brain cells from the progressive Alzheimer's disease by inhibiting the chronic inflammation. In conclusion, we found that DDB can be used in neurodegenerative disease caused by inflammation and cell damages from stresses.

[PB4-9] [2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function]

Inductive Effects of Vibrio vulnificus Infections on Cytotoxic Activity and Expression of Inflammatory Cytokine Genes in Human Intestinal Epithelial Cells

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Vibrio vulnificus, a Gram-negative estuarine bacterium, is the causative agent of food-borne diseases, such as life-threatening septicemia. V. vulnificus penetrating into the intestinal epithelial barrier stimulates an inflammatory response in the adjacent intestinal mucosa. Therefore, interaction between V. vulnificus and intestinal cells is important for understanding of both the immunology of mucosal surfaces and V. vulnificus. In this study we investigated the effects of V. vulnificus infection on cytokine gene expression of human intestinal epithelial cells, Caco-2 and INT-407 cells. V. vulnificus infection significantly induced the expression of pro-inflammatory cytokines such as IL-1, IL-6, IL-8, IL-12, and IL-18 in both incubation time- and MOI-dependent manners, while did not affect TGF-beta, etc. expression. Especially, infection with V. vulnificus increased IL-8 mRNA level and also increased the binding activity of transcription factor NF-kB to the kB sites in both Caco-2 and INT-407 cells. Furthermore treatment with inhibitors for NF-kB activation and translocation abrogated the enhanced IL-8 gene expression by V. vulnificus infection, indicating that V. vulnificus infection induced IL-8 gene expression by increasing NF-kB binding activity in human epithelial cells.

[PB4-10] [2003-10-10 09:00 - 13:00 / Grand Ballroom Pre-function]

Allergenecity of soybean and soybean-based products

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