

[P-35]**Screening of 357 Food or Medicinal Plants for Immunomodulatory Activity**

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Demand and effort to search for new immunomodulatory agents with limited toxicity has been expanded for the last decade in proportion to the increase in the number of patients with hypersensitivity or autoimmunity. The purpose of this study was to screen novel and effective immunomodulatory agents for immune-related diseases. Methanol extracts were prepared from 357 different plants that have been used as food or traditional medicines. To narrow down the number of candidates, we first used lymphoproliferation induced by mitogens such as LPS and Con A and then performed mixed leukocyte response. During these screening, we used single concentration (10 $\mu\text{g}/\text{m}\ell$) of the extracts and compared with no treatment control with criteria (percent of control: <20%, >200%). In the first lymphoproliferation step, 12 immunosuppressive and 9 immunostimulatory extracts were screened out. In the mixed leukocyte response test, 13 stimulants and 5 suppressants were selected. The effect of the extracts on the phagocytic activity of macrophage was also compared and expressed as the percent of control. We found 7 stimulants that showed the enhancement of macrophage function over 300%. Smaller group of extracts that have been selected during the three different screening steps were applied to the further assay systems including NK cell activity and Th1/Th2 cytokine production.

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