

Studies on the regulation of contact hypersensitivity reaction by cytokines

Takayuki Yoshimoto

Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University

In contact hypersensitivity (CHS) induced by haptens such as 2,4-dinitrofluorobenzene (DNFB), CD8⁺ T cells producing IL-17 (Tc17) are important effector cells. Tc17 cells also produce IL-22, which promotes dermal inflammation, and IL-27 is an inhibitory cytokine for the differentiation to helper T-17 cells. The present study suggests that IL-22 produced by Tc17 cells is essential for the CHS reaction at the elicitation phase and that IL-27 inhibits it by suppressing the Tc17 differentiation.