Lactobacillus paraplantarum 698 suppresses IgE production and induces Foxp3+ cells ex vivo

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The beneficial effects of Lactobacillus strains as probiotics have been described in many diseases. In this study, the author investigated the anti-inflammatory and immuno-regulating effects of Lactobacillus paraplantarum 698 from Meju, Korean traditional fermentation food, via ex vivo screening system using the mesenteric lymphocyte (MLN) of Foxp3-GFP mice. As results, the secretion of IL-12 was decreased in MLN of Foxp3-GFP mice co-cultured with L. paraplantarum 698 (MLN: Lactobacillus ratio=1:10), while production of IL-10 (anti-inflammatory cytokine) was increased. A significant increase of Foxp3 expression was observed in MLN co-cultured with with L. paraplantarum 698. In addition, we investigated the effect of with L. paraplantarum 698 on IgE production in atopic dermatitis (AD) model induced by house dust mite. The IgE production was reduced in total lymphocyte from draining lymph nodes co-cultured with L. paraplantarum 698. Taken together, L. paraplantarum 698 may be useful for the modulation of inflammatory immune disorders.

Biography
So Lim Park has completed her MS at the Pukyong National University. Currently, she is working as fermentation researcher at Korea Food Research Institute, Republic of Korea. She has published more than 15 papers in reputed journals.

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