Regulatory T cells in autoimmune and allergic disease

Juan J. Lafaille
Program of Molecular Pathogenesis, Skirball Institute of Biomolecular Medicine, New York University School of Medicine, New York, NY 10016

Regulatory T cells (Tregs, also referred to as Suppressor T cells) are important components of the homeostasis of the immune system, as impaired regulatory T cell activity can cause autoimmune diseases and atopy. It is now clear that the name “regulatory T cells” encompasses more than one cell type. For instance, CD4⁺CD25⁺ regulatory T cells have received attention due to their immunosuppressive properties in vitro and in vivo, but in several instances it has been shown that CD4⁺CD25⁻ T cell populations also contain potent regulatory activity. Recent progress in the field of regulatory T cells includes the improved understanding of the role of costimulatory molecules and the cytokines IL-10 and IL-2 in the induction and function of regulatory T cells, and the generation of CD25⁺ and CD25⁻ regulatory T cells in vivo through high-avidity T cell receptor interactions.

Data will be shown on two experimental models in which Tregs play a key role, spontaneous experimental autoimmune encephalomyelitis (EAE) and Hyper IgE responses.

References:

