

【Biological Sciences】

Title of Project	Molecular basis of the function and generation of Foxp3-expressing regulatory T cells
Principal Investigator Name	Shimon Sakaguchi, Kyoto University, Institute for Frontier Medical Sciences, Professor
Abstract of Research Project Number of Researchers : 8 Term of Project: 2008–2012	Naturally arising regulatory T cells (Tregs), which specifically express the transcription factor Foxp3, are engaged in the maintenance of immunological self-tolerance (i.e., immunological unresponsiveness to self-constituents) and immune homeostasis. Dysfunction of Tregs can be a cause of autoimmune disease, allergy, and immunopathology. In this project, we plan to decipher at the molecular level how Foxp3 controls the generation and function of Tregs, in particular how Foxp3 confers suppressive activity to Tregs. Our ultimate goal is to devise new ways of controlling suppressive function of Tregs to treat and prevent immunological diseases.