



Tumor immunotherapy targeting regulatory T cells

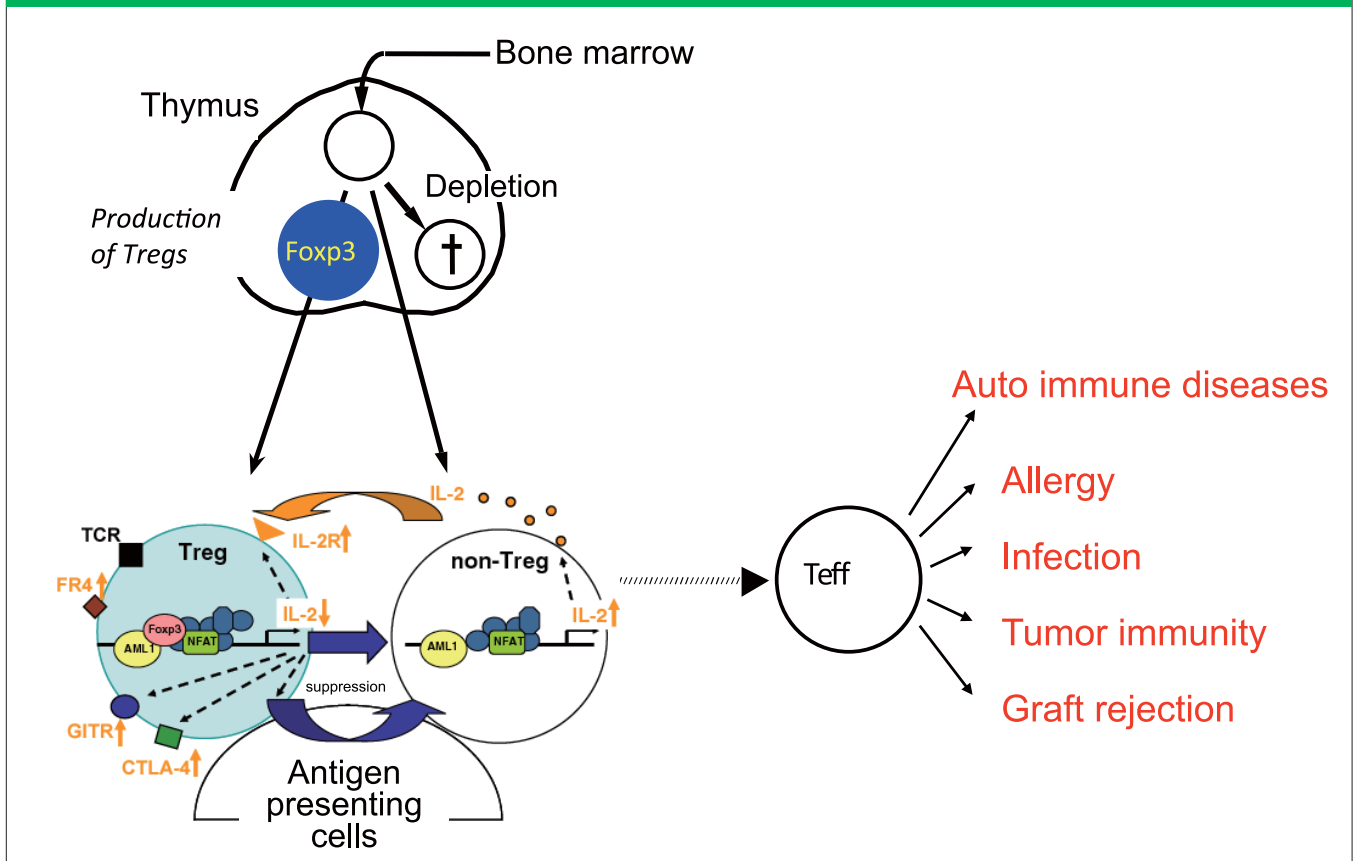
Outline

Immune therapy against progressive malignant tumors are widely studied in recent years with some hopeful results. We have shown that natural regulatory T cells suppress a variety of immune reaction including tumor immunity. Depletion of regulatory T cells and blocking of their suppressive activity could effectively enhance tumor immunity in mouse models. In this project, we will make a novel tumor-therapy targeting regulatory T cells and also establish a standard method to monitor immune reactions differentiating effector cells and regulatory T cells.

Expected Outcome

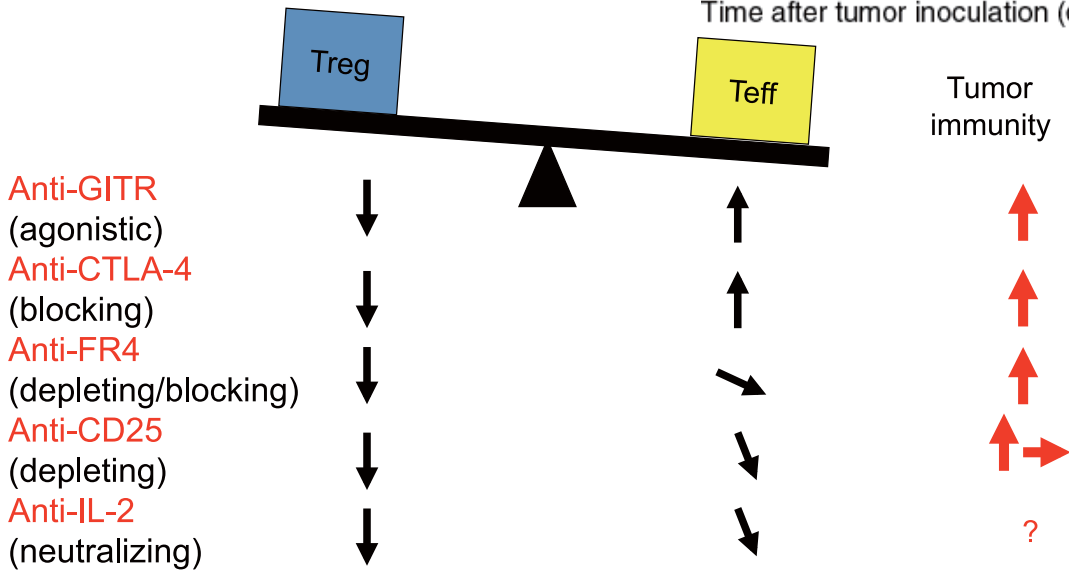
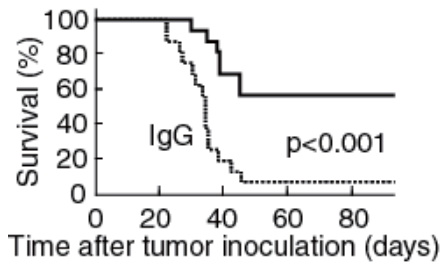
A tumor therapy targeting regulatory T cells is a new strategy to treat malignancy. This means that this therapy may be effective even in patients with progressive tumor that cannot be treated with any standard therapy. Monitoring of immune reactions in patients is required to understand and improve not only the therapy targeting regulatory T cells but also any novel immune therapy.

FoxP3⁺ regulatory T cells suppress a variety of immune reactions



Depletion and blocking of Tregs can enhance tumor immunity

Depletion of regulatory T cells with FR4-antibody enhances tumor immunity in mouse models



Human regulatory T cells can be divided into two different fractions with FoxP3/CD25/CD45RA staining

