

# Dendritic Cells and B Cells Cooperate in the Generation of CD4<sup>+</sup>CD25<sup>+</sup>FOXP3<sup>+</sup> Allogeneic T Cells

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**Background:** CD4<sup>+</sup>CD25<sup>+</sup>Foxp3<sup>+</sup> regulatory T cells (Treg) play an essential role in immune tolerance, suppressing responses against self-antigens. Additionally, Treg play an important role in maintaining immunosuppression to alloantigens as well as to other antigens. It is well known that in the gut, a subset of dendritic cells produces retinoic acid (RA), which together with transforming growth factor (TGF- $\beta$ ) is able to differentiate naïve T cells into Treg. The aim of this study was to establish the role of antigen-presenting cells (APC) in the differentiation of allogeneic Tregs under the effect of RA and TGF- $\beta$ . **Methods:** Splenic CD4<sup>+</sup>CD25<sup>-</sup> naïve T cells from C57BL/6 mice were co-cultured with splenic CD11c-enriched APC from Balb/c mice in the presence of TGF- $\beta$ , RA, and interleukin (IL-2). After 6 days of culture, cells were analyzed for the expression of Foxp3 by flow cytometry. Additionally, we investigated the role of B cells and dendritic cells (DCs) and their stimulatory capacity in