

Retinoic acid generates regulatory T cells in experimental transplantation

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Regulatory T cells play a key role to inhibit effector lymphocytes, avoid, autoimmunity, and restrain allogeneic immunity. Retinoic acid is an important cofactor that stimulates the generation and expansion of regulatory T cells. Naive T cells, coincubated with allogeneic antigen-presenting cells and retinoic acid, in conjunction with transforming growth factor (TGF) β and interleukin (IL) 2, generated allogeneic regulatory T cells de novo. These cells were able to inhibit skin rejection in adoptive transfer experiments. The generation of regulatory T cells ex vivo with retinoic acid, TGF- β , and IL-2 represents a new step toward specific regulation of allogeneic immune responses. © 2011 by Elsevier Inc. All rights reserved.