

Regulatory T cells in infection and autoimmunity

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The regulatory T cells (Treg) restrain immune responses through elaboration of suppressor function dependent upon expression of the transcription factor Foxp3. Despite a critical role for Treg cells in maintaining immune homeostasis, the molecular determinants of their differentiation, homeostasis and function remain unknown. We are investigating mechanisms of control of Treg development and Treg-mediated suppression operating at transcriptional and post-transcriptional levels using genetic approaches. Our studies suggest that Treg cells utilize multiple means to limit diverse types of immune responses and that these mechanisms, controlled by Foxp3 directly and indirectly are playing a discernable role in a particular inflammatory setting.

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