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Genomics of Tolerance

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Immune tolerance is imparted by central and peripheral mechanisms, including apoptotic elimination of self-reactive cells, but also deviation into alternative lineages. The molecular determinants of Treg differentiation, homeostasis and function remain unclear. We are investigating pathways of clonal deletion and Treg lineage specification, operating at transcriptional and post-transcriptional levels, using genetic and genomic approaches. Our studies suggest that genetic variation affects tolerance pathways, and that diverse Treg phenotypes can be elicited in different settings.

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