

T lymphocyte trafficking in immunity and autoimmunity

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T lymphocytes have the daunting task of patrolling virtually every tissue of the body. They scan dendritic cells in lymphoid organs in search of specific antigens and, once primed, they migrate to follicles to help B cells to produce antibodies, and to sites of antigen exposure to deliver the appropriate effector or regulatory function thus inducing or dampening inflammation. By orchestrating T cell traffic chemokine receptors best serve this functional specialization. Chemokine receptors have been particularly useful to identify distinct subsets of effector and memory T lymphocytes with distinct migratory capacity and effector function. These studies, mostly performed in the human system, are at the basis of our current distinction of central memory, follicular helper and effector memory T cells and of our capacity to discriminate between Th1, Th2, Th17 and possibly other T helper cell subsets using surface markers.