

Chemokines, Novel Lymphocyte Subsets and Lymphocyte Trafficking

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Chemokines control lymphocyte trafficking and microenvironmental positioning. I will discuss recent observations that 1) reveal the role of constitutive tissue-specific epithelial-cell chemokines in effector and antibody secreting cell homing to mucosal and cutaneous sites; 2) use chemokine and homing receptor expression patterns to identify novel T cell subsets, including separable CD4 subsets responsible for B help and DTH; 3) demonstrate that specific homing properties are induced rapidly by local microenvironments during the naive to effector/memory transition in lymphoid tissues; and 4) redefine the rules and significance of chemokine receptor association with Th1 and Th2 cells. These novel findings will be considered in the context of the combinatorial control of lymphocyte trafficking, and its intimate interrelationship with lymphocyte differentiation and function.

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