



CCR7 is involved in the migration of neutrophils to lymph nodes

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Increasing evidence suggests that neutrophils may participate in the regulation of adaptive immune responses, and can reach draining lymph nodes and cross-prime naive T cells. The aim of this study was to identify the mechanism(s) involved in the migration of neutrophils to the draining lymph nodes. We demonstrate that a subpopulation of human and mouse neutrophils express CCR7. CCR7 is rapidly expressed at the membrane upon stimulation. In vitro, stimulated human neutrophils migrate in response to the CCR7 ligands CCL19 and CCL21. In vivo, injection of complete Freund adjuvant induces a rapid recruitment of neutrophils to the lymph nodes in wild-type mice but not in *Ccr7*^{-/-} mice. Moreover, intradermally injected interleukin-17-and granulocyte-macrophage colony-stimulating factor-stimulated neutrophils from wild-type mice, but not from *Ccr7*^{-/-} mice, migrate to the draining lymph nodes. These results identify CCR7 as a chemokine receptor involved in the migration of neutrophils to the lymph nodes.

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