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Title: CXCR1 is dispensable for allergy-driven airway leukocyte recruitment in vivo

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Body: Chemokines recruit inflammatory cells to sites of inflammation. Human CXCL8 (Interleukin 8) represents the prototypical chemokine for neutrophil migration by binding to the G-protein coupled chemokine receptors CXCR1 (IL-8RA, CD181) and CXCR2 (IL-8RB, CD182). While the role of CXCR2 has been investigated in detail by genetic deletion or pharmacologic inhibition, the distinct contribution of CXCR1 remains incompletely understood. The murine homologue of human CXCR1 has recently been identified. Here we studied the role of CXCR1 in leukocyte recruitment by using recently generated CXCR1 knock-out mice and in vivo models of airway inflammation (ovalbumin and house dust mite models of allergic asthma), infection-triggered cell recruitment and chemotaxis. In contrast to human CXCR1, murine CXCR1 was dispensable for the recruitment of neutrophils, monocytes, dendritic cells or T cells in models of allergic or bacterial inflammation. These studies demonstrate that CXCR1 is dispensable for allergy-driven airway leukocyte recruitment and inflammatiory cell migration in vivo. The functional role of murine CXCR1 in cell recruitment and pulmonary inflammation remains to be solved in future studies.