

***Christopher A. Hunter***

## **The biology of IL-27 and limiting infection-induced inflammation**

Christopher A. Hunter  
School of Veterinary Medicine, University of Pennsylvania

IL-27 is a heterodimeric cytokine composed of p28 and EBI3 that is closely related to other members of the IL-6/12 family. While IL-27 has a number of roles in promoting immune function, in the context of many infections it appears to have a critical role in limiting T cell mediated inflammation (Villarino et al., 2003). Consistent with this idea, IL-27 is a potent antagonist of the production of IL-2, TH17 cells and can also promote the production of the anti-inflammatory cytokine IL-10 (Stumhofer et al., 2006; Stumhofer et al., 2007; Villarino et al., 2006). More recent reports have suggested that the different sub-units of IL-27 may have distinct biological effects and our studies indicate that p28 alone is an antagonist of signaling through gp130, the receptor sub-unit used by IL-6 and IL-27. In addition, while p28 transgenic mice can generate T-independent antibody responses, they have a major defect in their capacity to generate germinal centers and T-dependent antibodies. Together, these studies suggest that IL-27p28 alone may provide a useful therapeutic approach to manage conditions associated with excessive signaling through gp130.

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