Cross-regulatory mechanisms of interferon and allergic stimulation

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IFN-α/β inhibits human Th2 development

... but not mouse

FcεR1 cross-linking impairs influenza-induced IFN-α secretion from human plasmacytoid dendritic cells

IFN-α/β negatively regulates Th2/17 development

Michelle A. Gill
The role of dendritic cells in asthma
Journal of Allergy and Clinical Immunology, Volume 129, Issue 4, 2012, 889 - 901
Interferon inhibits Th2 cells

Allergic stimulation (IgE) inhibits interferon production

Viral infections trigger interferon production

Allergic individuals produce less interferon in response to viral infections than non-allergic individuals
TLR-3/7/9
Virus
Intracellular bacteria

DC

IFN-α/β

Th2

IL-4

IgE

B