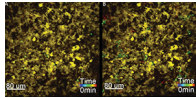


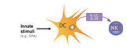
SUPPLEMENTAL MATERIAL

Chong et al., <http://www.jem.org/cgi/content/full/jem.20141678/DC1>

Video 1. Intravital two-photon imaging of the interaction between NK and DC in the LN draining site of uveitogenic immunization. (A) WT NK cells sorted from actin-GFP reporter mice (green) and CMTMR-labeled NK cells sorted from CXCR3^{-/-} mice (red) were co-injected intravenously at a 1:1 ratio into EAU-immunized CD11c^{YFP} recipients. After 24 h, NK cell DC interactions were imaged in the popliteal LN of an anesthetized mouse using 2P-IVM for 60 min. NK-DC interaction was defined as a sustained decrease in velocity on the part of the NK cell upon contact with a specific DC. (B) Green tracks indicate the path of WT NK cells and red tracks indicate the path of CXCR3^{-/-} NK cells. Zoom from x, y, z = 213 μm, 213 μm, 64 μm; merge of z-stack), time-lapse over 60 min (10 frames/s).

NK-DC interaction results in elicitation of an innate IFN-γ-IL-27 axis that dampens adaptive immunity and limits tissue-specific autoimmune disease.

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Video 2. NK-DC interaction for elicitation of an innate IFN-γ-IL-27 axis. Innate stimuli from the site of immunization (in this case, CFA) stimulate DC in the draining LN to produce IL-12 and IL-18, which act on the resident NK cells. In response, the NK cells produce IFN-γ, which acts on the DC. The DC respond by producing IL-27, which elicits more IFN-γ from the NK cells. IFN-γ triggers production of CXCR3 ligands by DC, which recruit additional CXCR3-expressing NK cells to the LN, to further amplify the positive feedback loop. The resulting IL-27 causes suppression of the Th17 response through direct and indirect effects, and the IFN-γ attenuates the Th1 and Th17 adaptive immunity by causing death of effector T cells. The positive feedback loop is ultimately mitigated by IL-10 produced in part by the interacting NK and DC cells themselves.