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SUPPLEMENTAL DATA (5 figures)



Supplementary Figure 1. Immunomodulation during chronic schistosome

infection. A, Splenocytes were isolated from naïve mice and from mice infected with *S. mansoni* for 8 wks or 16 wks, and cultured *in vitro* in medium alone (open symbols) or with SEA (filled symbols) for 72 h, at which time levels of cytokines in culture supernatants were measured by ELISA. **B**, Splenocytes from acutely- of chronically-infected mice were labeled with CFSE and cultured with or without SEA, or with DCs or SEA-pulsed DCs (DC/SEA), for 72 h, after which CFSE dilution in CD4+ cells was measured by flow cytometry. Numbers represent the mean percentages of CD4+ T cells in which dilution of CFSE had occurred (3 mice/group).



Supplementary Figure 2. *In vivo* Th2 cell proliferation of Th2 cells localized to the liver. **A**, Leukocytes isolated from the livers of naïve or 8 wk or 16 wk infected 4get mice were analyzed for the expression of CD4 and eGFP by flow cytometry. Numbers are mean percentages of CD4+ cells that are IL-4/GFP+ (3 - 5 mice/group). **B**, BrdU incorporation into GFP+CD4+ cells isolated from the livers of naïve or acutely- or chronically-infected 4get mice, assessed *ex vivo* following a 7 d labeling period *in vivo*. Numbers represent mean percentages of cells that are BrdU+ (3 - 4 mice/group). Plots shown are from representative animals.



Supplementary Figure 3. Expression of T cell activation markers by Th2 cells during infection. Gated CD4+ splenocytes from infected and control mice were analyzed for the expression of CD62L (A), CD69 (B) and IL-4/GFP by flow cytometry. Plots shown and quadrant statistics are from representative animals. Bold numbers represent the mean percentages of IL-4/GFP+ cells expressing the marker (3 - 4 mice/group).



Supplementary Figure 4. Antigen-specific proliferation of Th2 and non-Th2 cells following infection. Sorted GFP+CD4+ and GFPneg CD4+ cells from naïve or 8 wk or 16 wk infected animals were restimulated *in vitro* with DCs pulsed with SEA (DC/SEA) or without (DC) SEA for 72 h. Proliferation was assessed using flow cytometry to determine the incorporation of BrdU during the 72 h culture period.



Supplementary Figure 5. Knockdown of GRAIL expression using small hairpin RNA. Sorted GFP+CD4+ cells from the popliteal LNs of mice injected in their rear footpads 8 days previously with schistosome eggs were stimulated with plate bound anti-CD3 and soluble anti-CD28 for 24 h prior to spin infection with virus that encodes a short hairpin RNA specific for GRAIL (GRAILhp) or, as a control, Luciferase (LUChp). 4 d after spin infection CD4+ cells were FACS-purified based on the expression of the huCD8 reporter and GRAIL expression was determined by real-time RT-PCR.