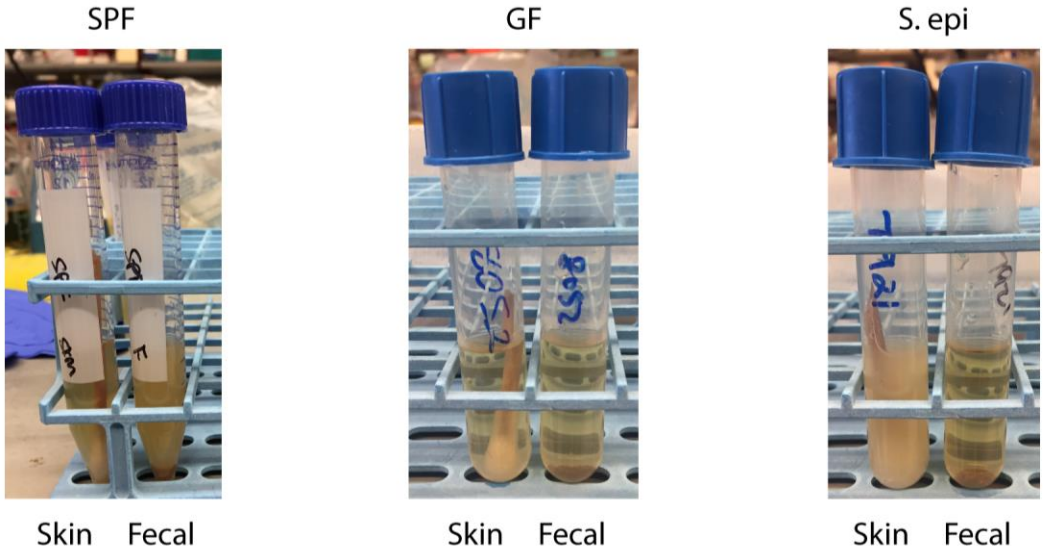
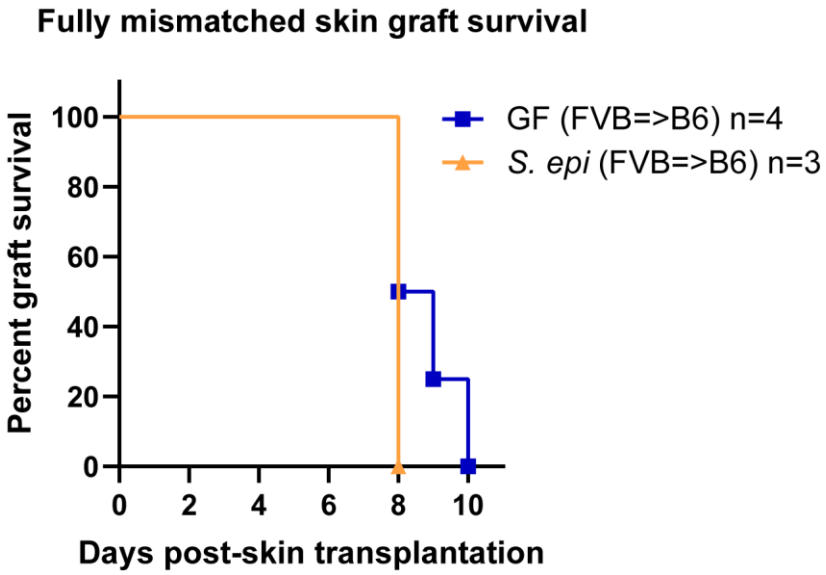
Supplemental Figures and Tables

Genes	Sequences
IFNγ	F: AAAGAGATAATCTGGCTCTGC
	R: GCTCTGAGACAATGAACGCT
TNFα	F: CTGTAGCCCACGTCGTAGC
	R: TTGAGATCCATGCCGTTG
IL6	F: GCTACCAAACTGGATATAATCAGGA
	R: CCAGGTAGCTATGGTACTCCAGAA
IL12A	F: TCAGAATCACAACCATCAGCA
	R: CGCCATTATGATTCAGAGACTG
IL18	F: CAAACCTTCCAAATCACTTCCT
	R: TCCTTGAAGTTGACGCAAGA
18S rRNA	F: GTAACCCGTTGAACCCCATT
	R: CCATCCAATCGGTAGTAGCG
β Actin	F: TGGAATCCTGTGGCATCCATGAAAC
	R: TAAAACGCAGCTCAGTAACAGTCCG

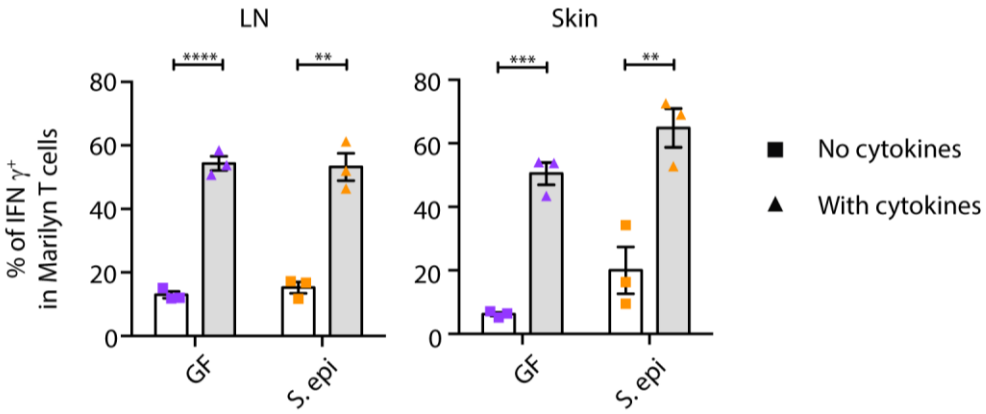
Table I: qPCR primer sequences.



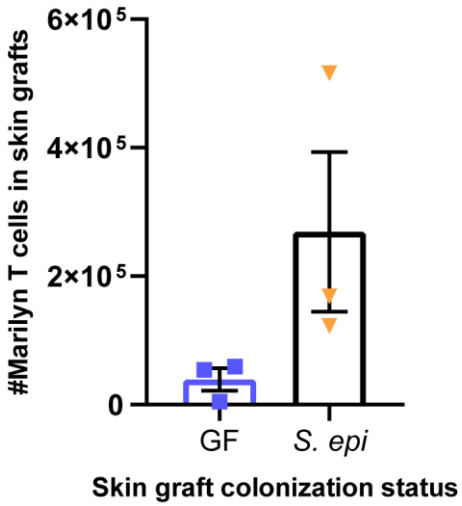
Supplemental Figure 1. *S. epi* colonized the skin but not the gut of oral vancomycin-treated gnotobiotic mice. GF mice were painted with *S. epi*. After 10 days, skin swabs and fecal samples were cultured in aerobic conditions overnight. Cloudy broths demonstrate bacterial growth whereas clear broths denote the sterility of the culture.



Supplemental Figure 2. Donor skin *S. epi* trends towards accelerating rejection of a fully mismatched skin graft. Eight GF FVB male mice (H-2^q) were put on vancomycin-supplemented water and 4 mice were painted with *S. epi*. After 10 days, skin from GF FVB or cutaneous *S. epi*-monocolonized FVB mice was transplanted onto female C57BL/6 recipients on vancomycin-supplemented water. One recipient died during transplantation. Graft survival was evaluated daily after bandage removal on day 7. p=0.1797 by log rank test.



Supplemental Figure 3. Exogenous addition of inflammatory cytokines results in augmented effector function by donor-reactive T cells. APCs ($2x10^5$) from the LNs or flank skin of GF and 10 day-painted *S. epi*-monocolonized mice were incubated with Marilyn T cells ($5x10^4$) in the presence or absence of exogenous IL-6+IL-12 for 3 days. Cells were then restimulated with PMA + ionomycin for 4h and analyzed by flow cytometry for IFNγ expression by Marilyn T cells. Data represent the mean +/- SEM. Statistical analysis using the unpaired t-test.



Supplemental Figure 4. Trend toward increased numbers of donor-reactive T cells in *S. epi*-colonized skin grafts. Spleen and LNs from CD45.1$^+$ Marilyn TCR-TgxRAG-KO mice were CFSE-labeled and transferred (10^6) into GF female C57BL/6 mice 4 days after transplantation with male GF (n=3) or *S.epi*-monocolonized (n=3) skin grafts. Animals were sacrificed on day 10, hematopoietic cells extracted from the skin grafts and CD45.1$^+$TCRβ^+ cells enumerated by flow cytometry. Data represent the mean +/- SEM.