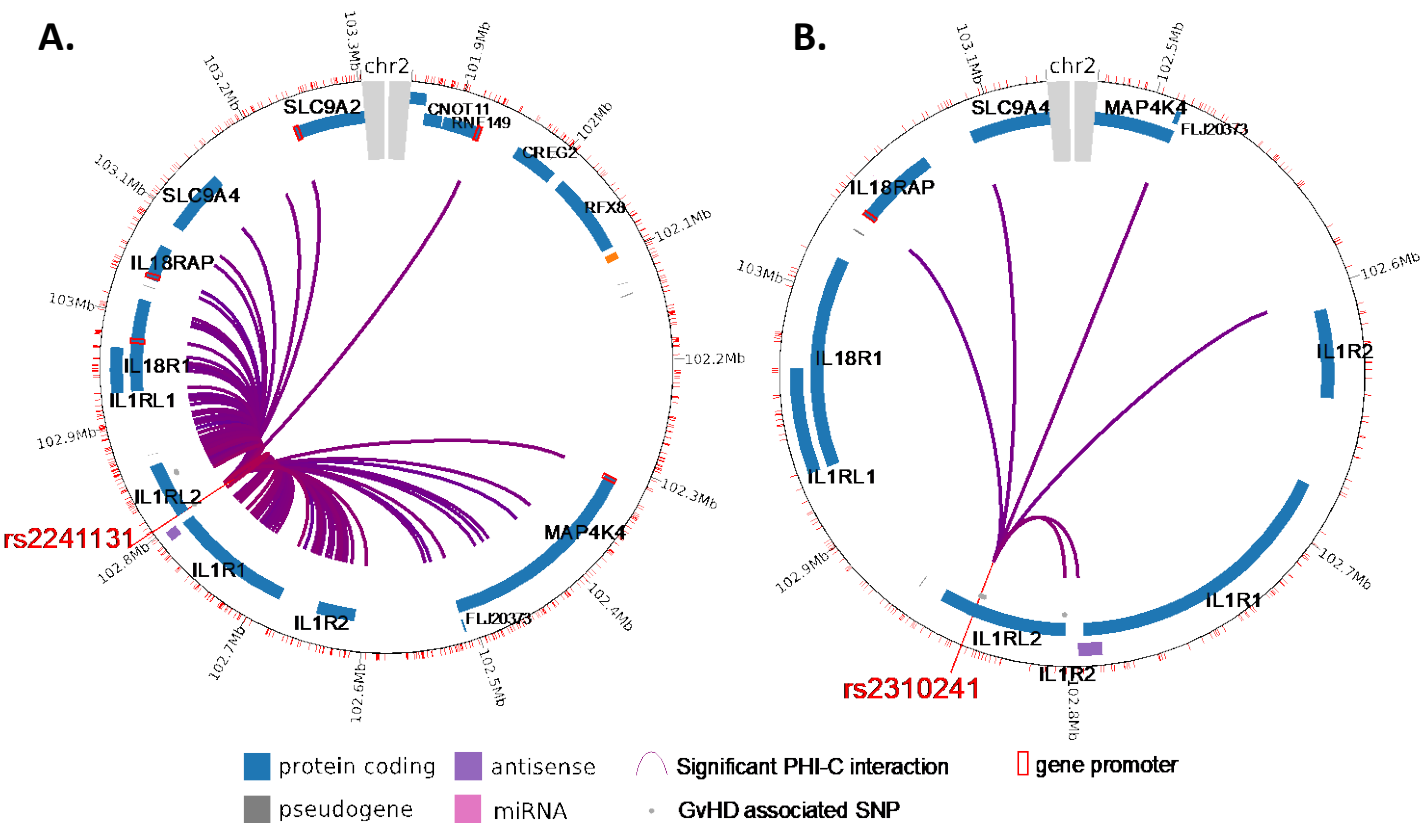


Supplemental Figure 1. Details on the infection deaths.

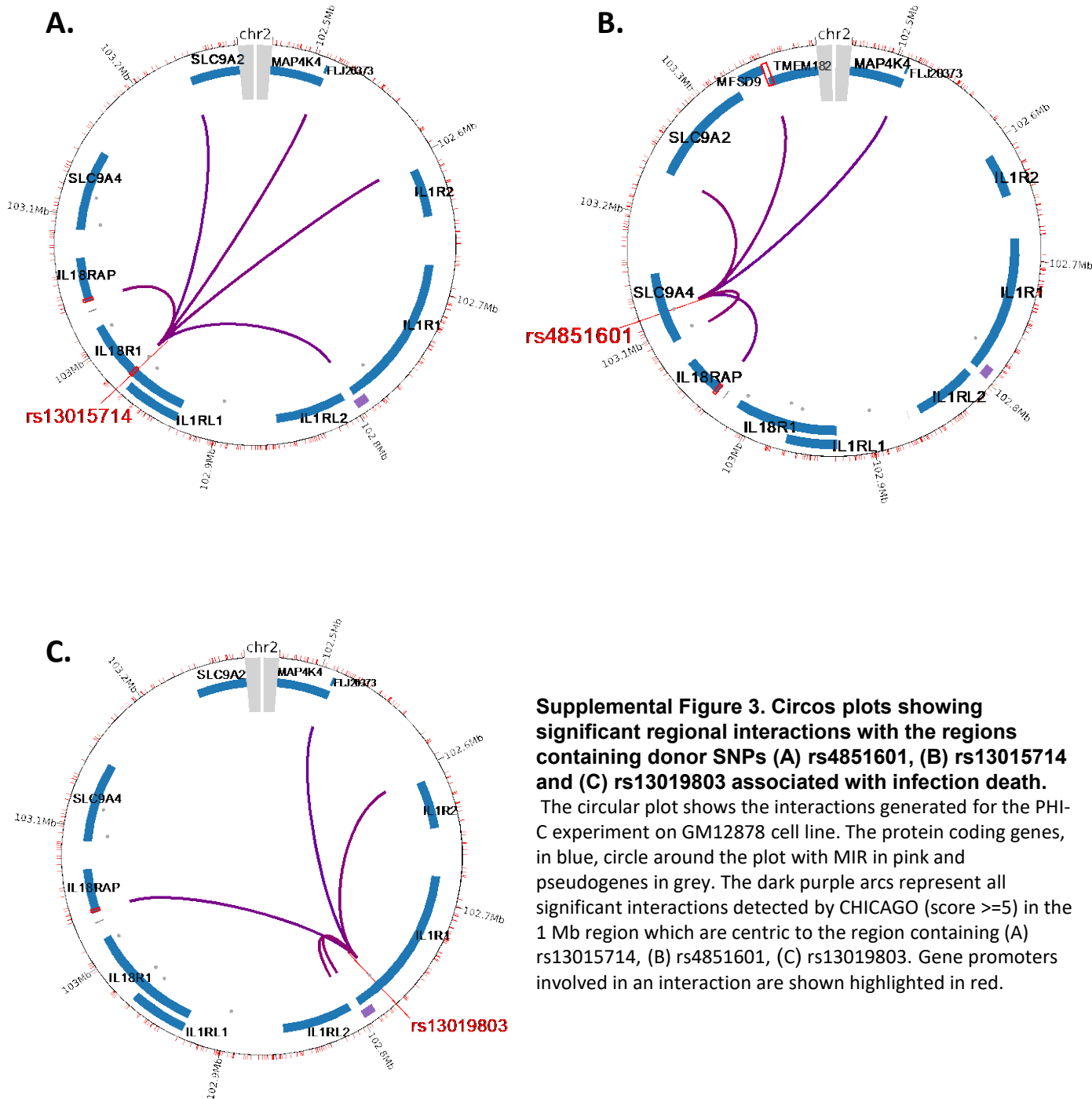
Pie charts show the proportions of patients died from infection for different infection types **(A)** and effected organs **(B)**



Supplemental Figure 2. Circos plots showing significant regional interactions with the regions containing donor SNPs (A) rs2241131 and (B) rs231024 associated with aGVHD death.

The circular plot shows the interactions generated for the PHI-C experiment on lymphoblastoid cell line (LCL) GM12878. The protein coding genes, in blue, circle around the plot with MIR in pink and pseudogenes in grey. The dark purple arcs represent all significant interactions detected by CHICAGO (score ≥ 5) in the 1 Mb region which are centric to the region containing SNPs. Gene promoters involved in an interaction are shown highlighted in red. **(A)** Region containing rs2241131 interacts with multiple promoter regions near RNF149, MAP4K4, IL18R1 and SLC9A2 genes. **(B)** One of the significant bait-gene target pairs is between the region which includes a variant in *IL1RL2* (rs144678772) spanning from 102,802,720 to 102,860,720 base pairs and the region that includes rs2310241. Rs144678772 is strong LD with rs2310241 ($r^2 = .98$), resides in a upstream promoter region across blood, T-cells, HSCs and B-cell lines,¹² is in an open chromatin region and CTCF binding site in LCLs and is predicted likely to affect transcription factor binding.

■ protein coding ■ antisense — Significant PHI-C interaction □ gene promoter
■ pseudogene ■ miRNA • GvHD associated SNP



Supplemental Figure 3. Circos plots showing significant regional interactions with the regions containing donor SNPs (A) rs4851601, (B) rs13015714 and (C) rs13019803 associated with infection death.

The circular plot shows the interactions generated for the PHI-C experiment on GM12878 cell line. The protein coding genes, in blue, circle around the plot with MIR in pink and pseudogenes in grey. The dark purple arcs represent all significant interactions detected by CHICAGO (score ≥ 5) in the 1 Mb region which are centric to the region containing (A) rs13015714, (B) rs4851601, (C) rs13019803. Gene promoters involved in an interaction are shown highlighted in red.