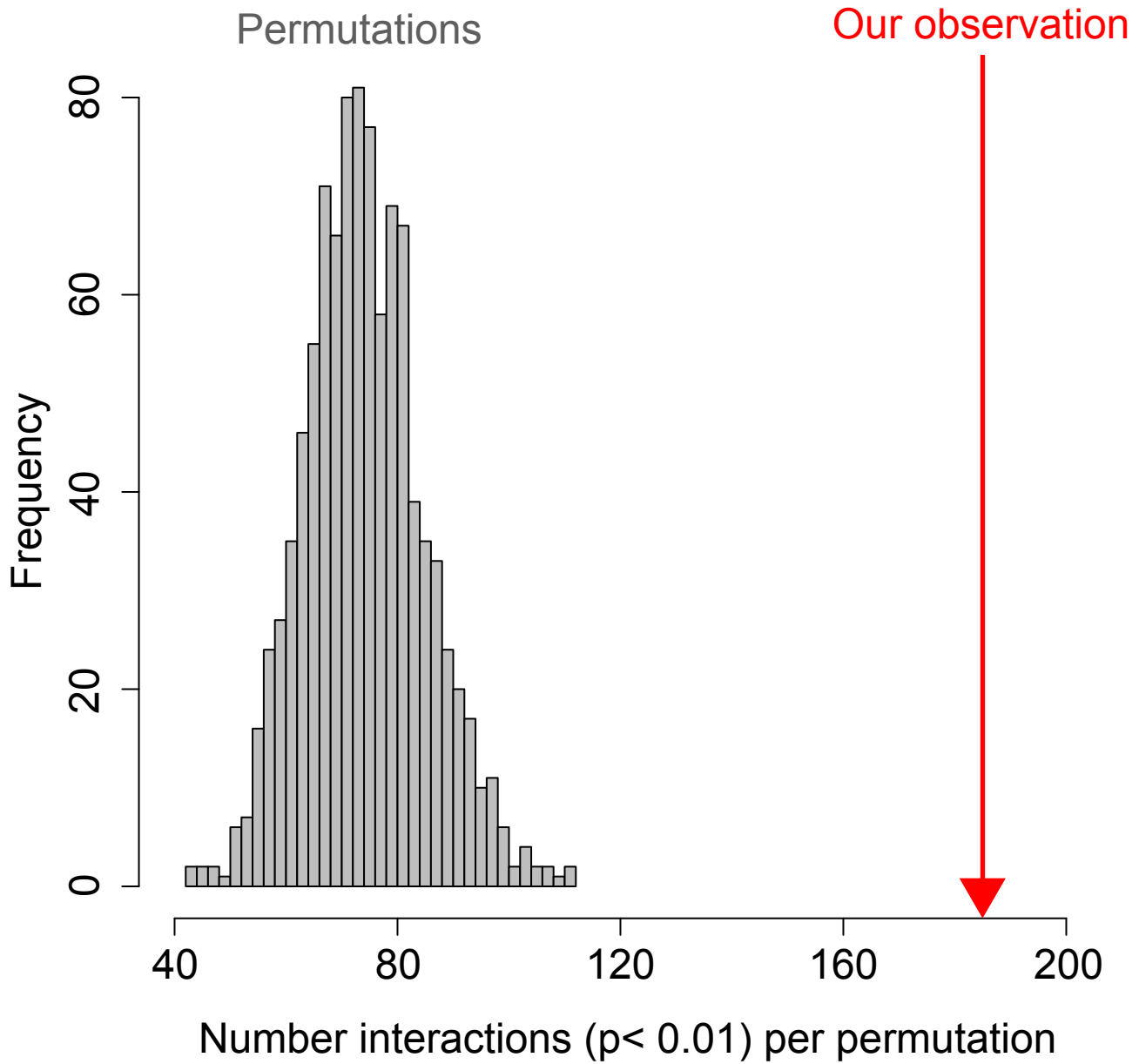
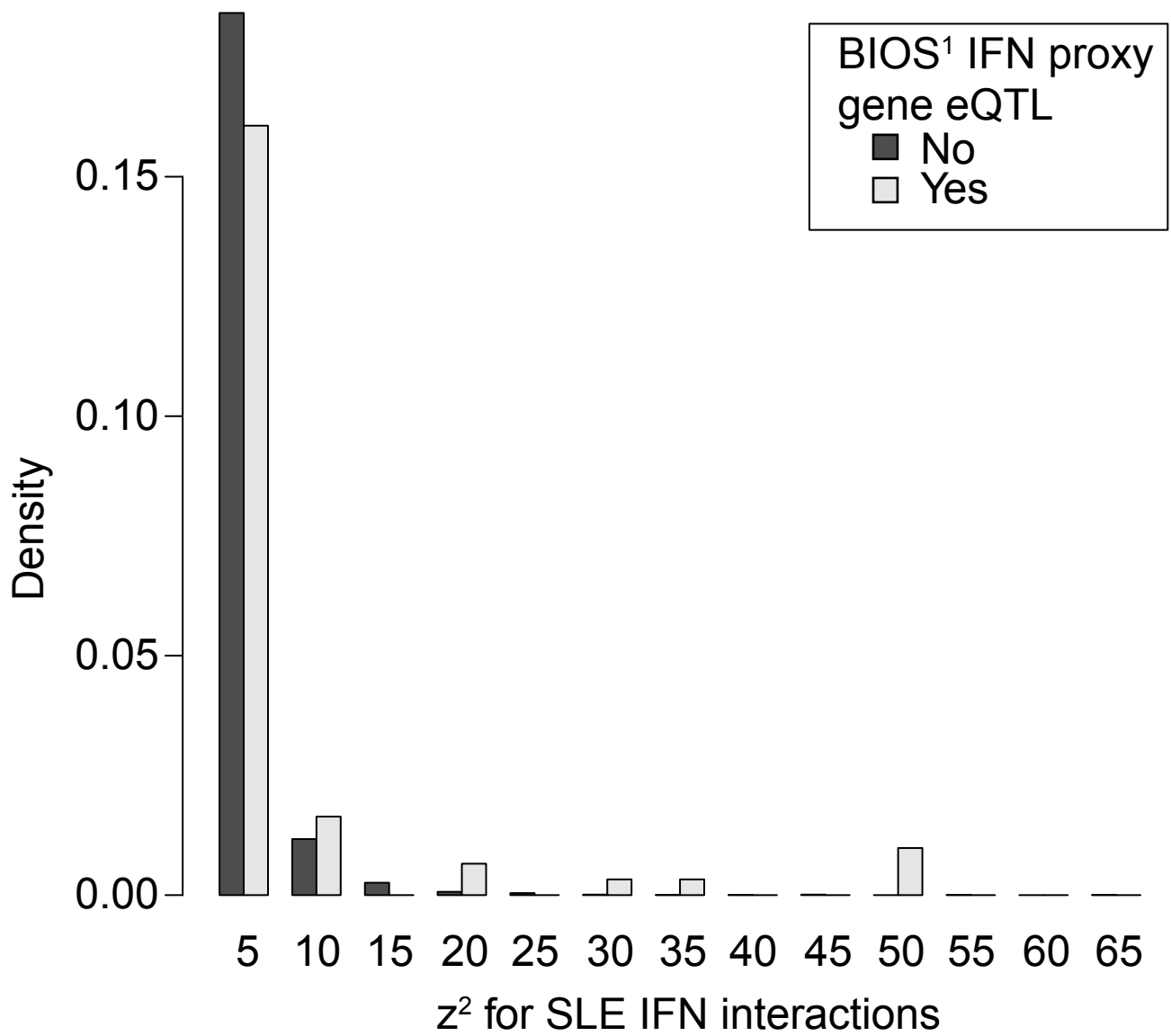


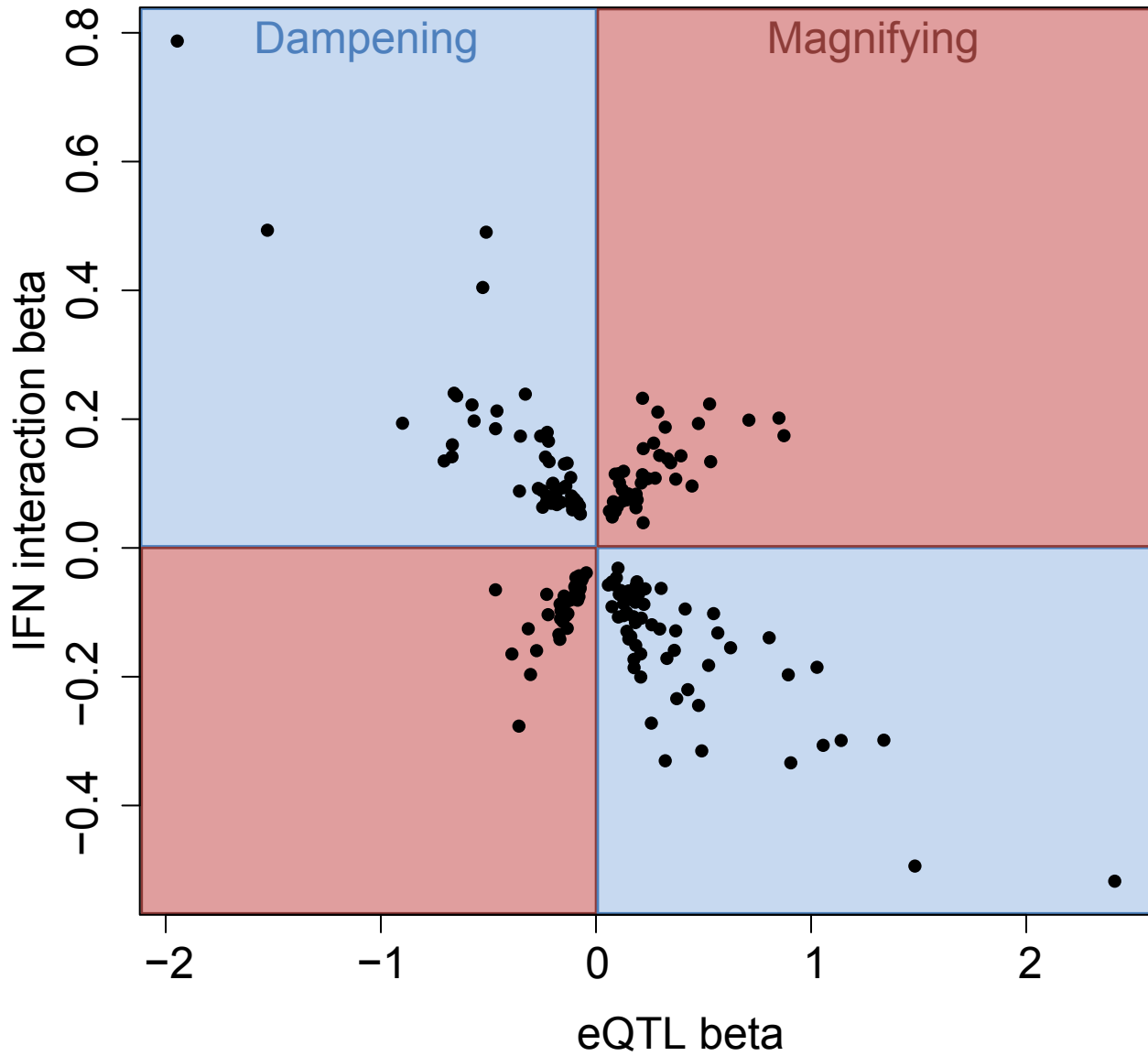
Supplementary Figure 1. Effect of interaction on original eQTL effect. eQTL interactions can be divided into magnifiers, where environmental exposure and the SNP eQTL effects are in the same direction, and dampeners where environmental exposure and the SNP eQTL effects work in the opposite direction.



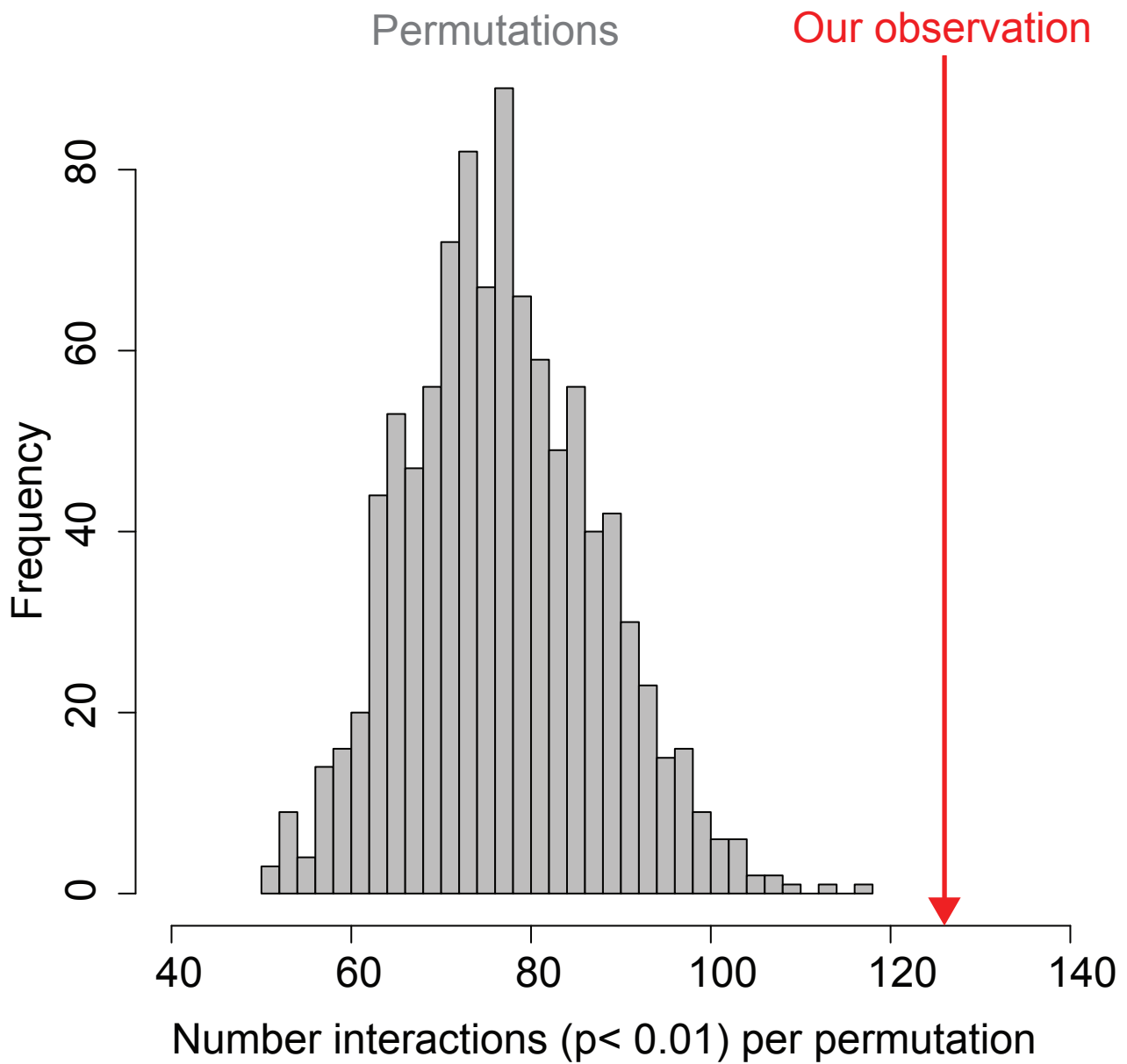
Supplementary Figure 2. Distribution of IFN-eQTL interactions from permutations. Number of significant interactions (p < 0.01) from 1,000 permutations of IFN status. The median number of interactions observed from the permutations was 74.



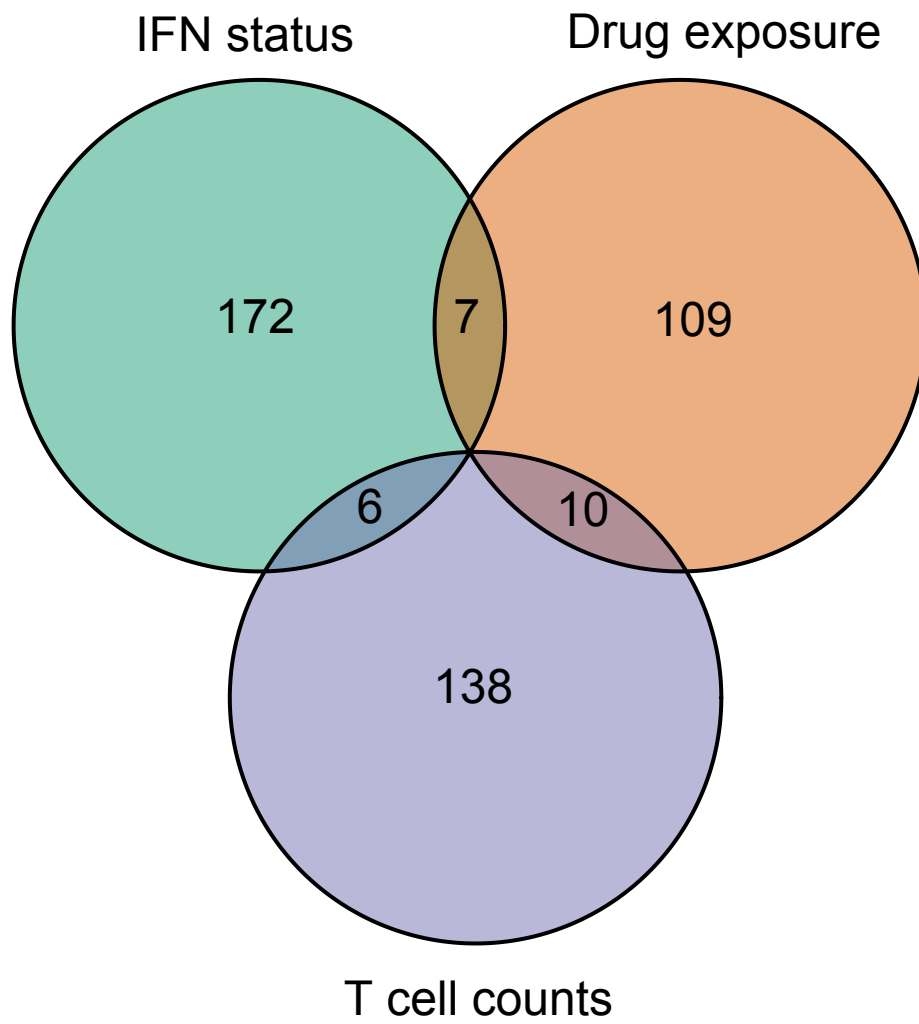
Supplementary Figure 3. Overlap of SLE IFN interaction genes with previously reported IFN proxy interactions. The z^2 for each gene tested for an IFN interaction in the SLE cohort is plotted.



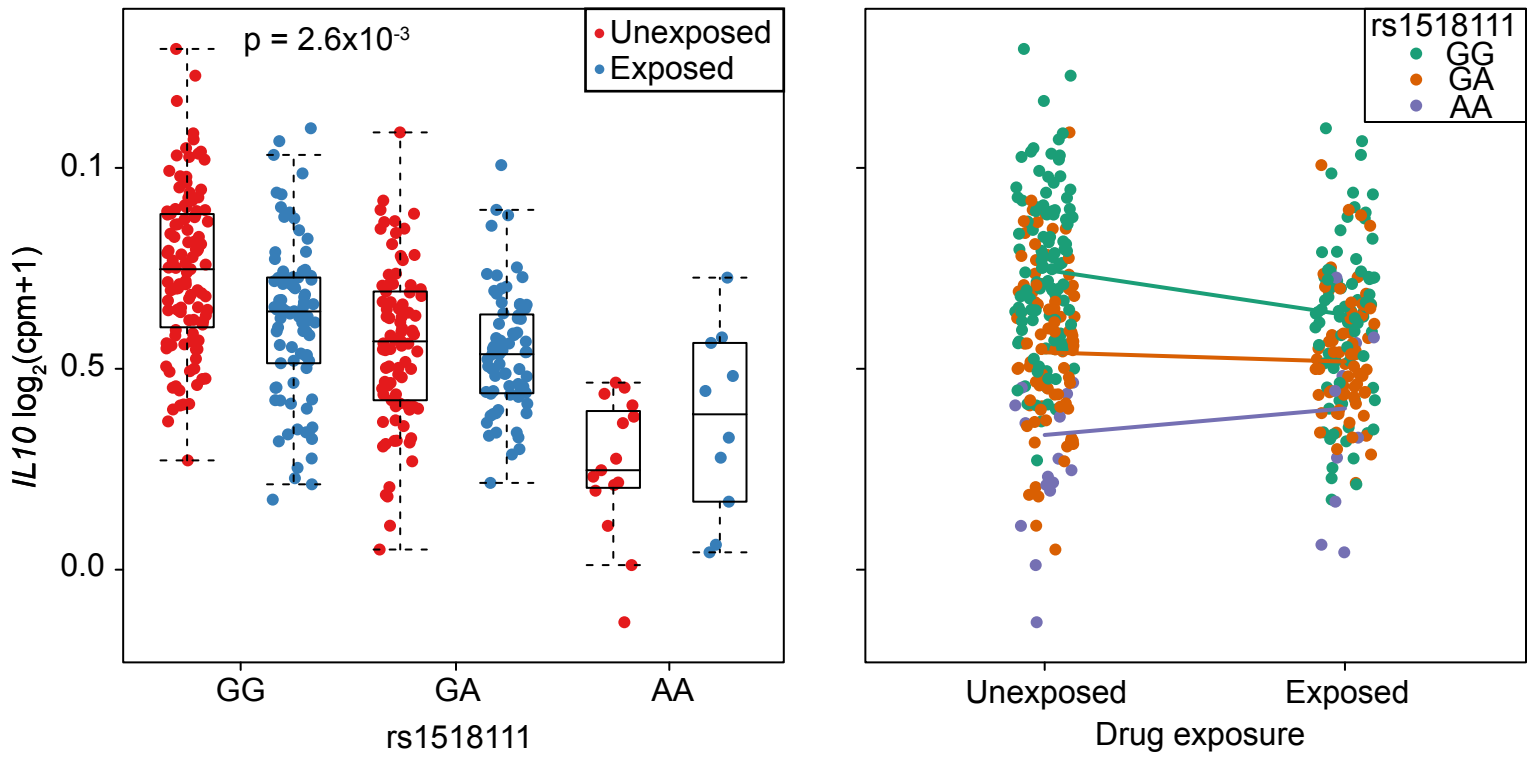
Supplementary Figure 4. Effect of the IFN interaction on the original eQTL effect. IFN eQTL interactions are divided into magnifying or dampening depending on the direction of the original eQTL effect and the direction of the interaction.



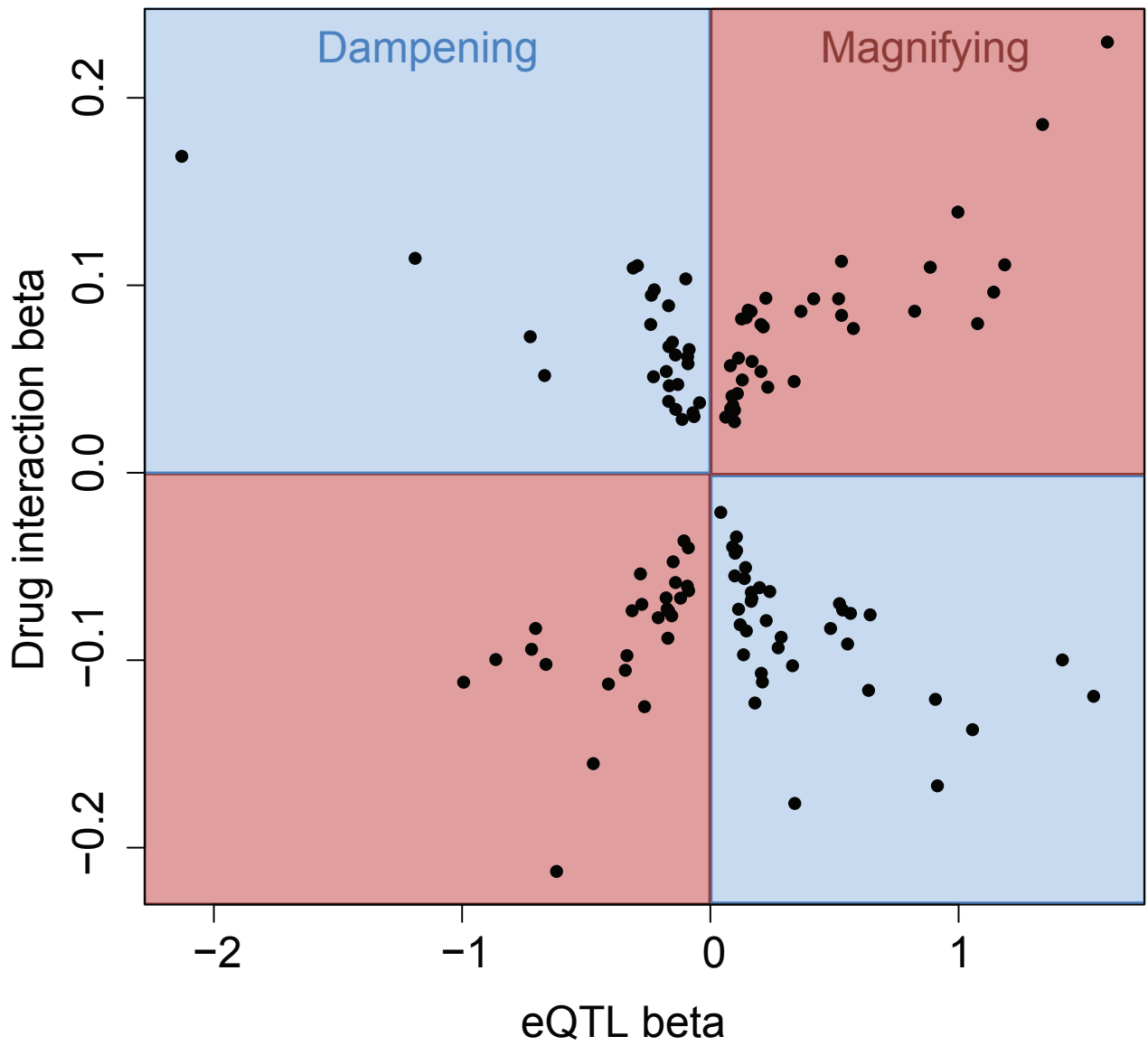
Supplementary Figure 5. Distribution of drug-eQTL interactions from permutations. Number of significant interactions ($p < 0.01$) from 1,000 permutations of drug exposure. The median number of interactions observed from the permutations was 77.



Supplementary Figure 6. eQTL interaction overlap. Overlap of significant ($p < 0.01$) eQTL interactions with T cell counts, IFN status and drug exposure.



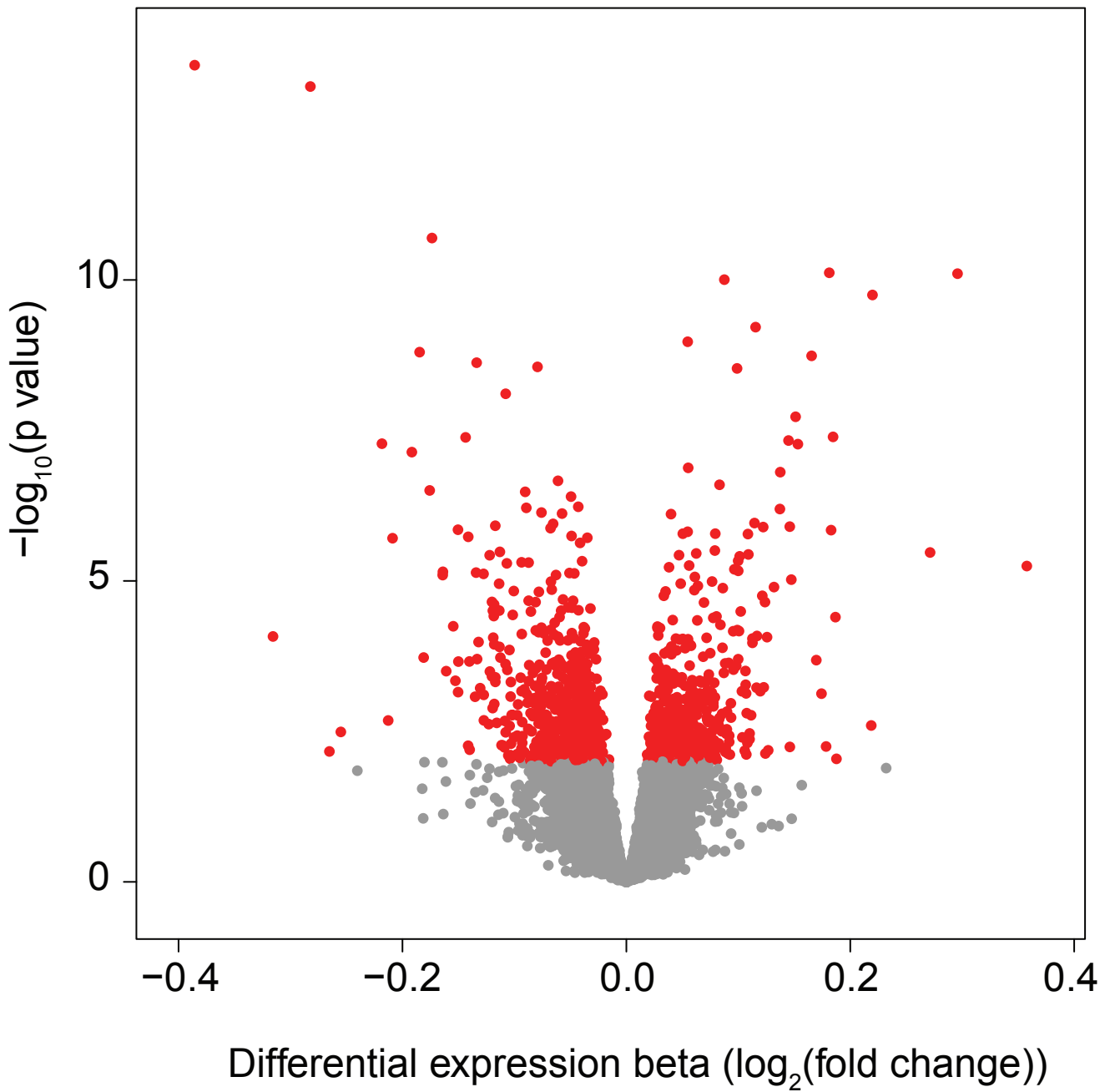
Supplementary Figure 7. Drug-eQTL interaction for *IL10*. Drug exposure interaction with the *IL10* eQTL plotted with respect to rs1518111 genotype (left) and drug exposure (right).



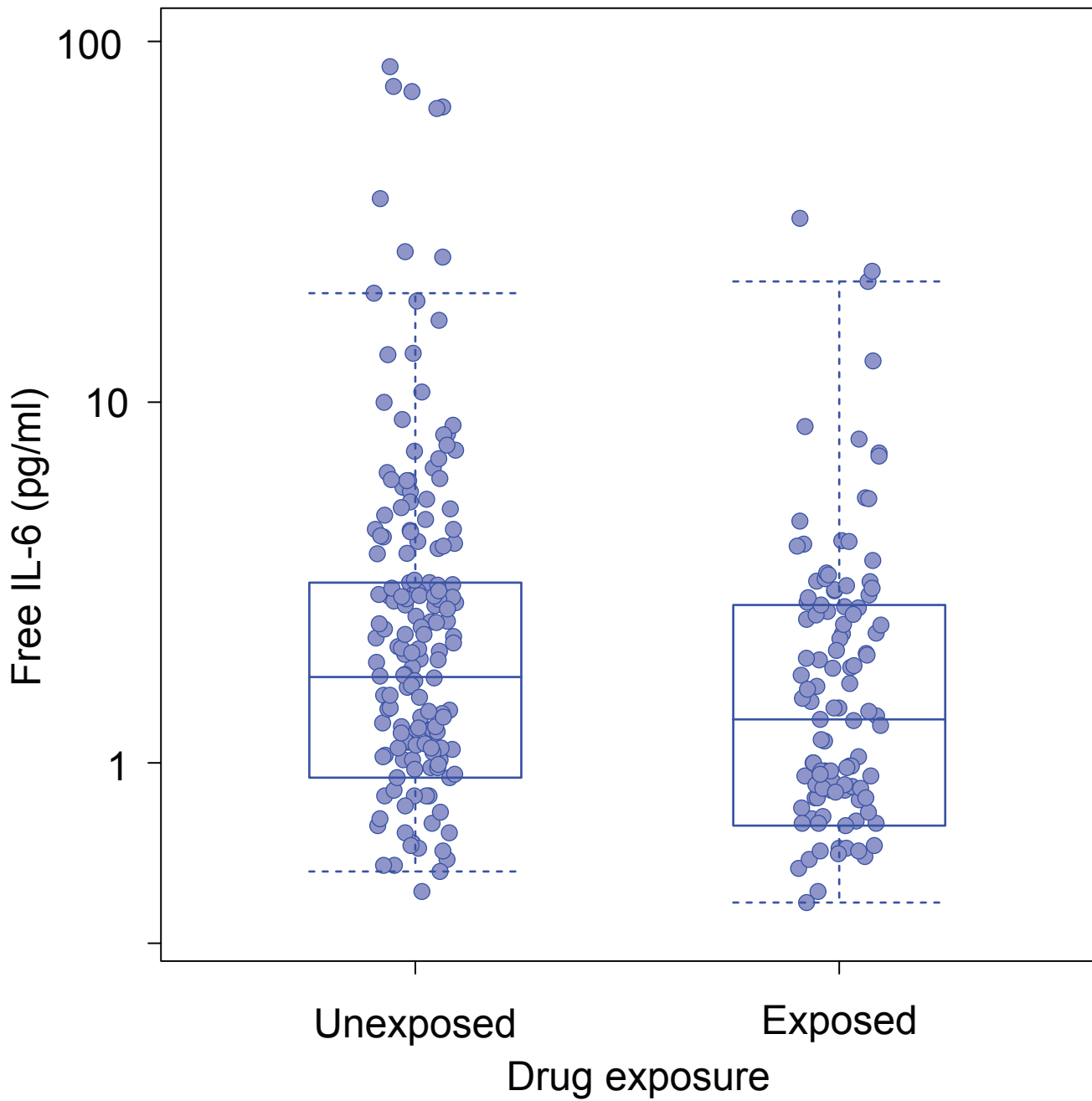
Supplementary Figure 8. Effect of the drug interaction on the original eQTL effect.

Drug-eQTL

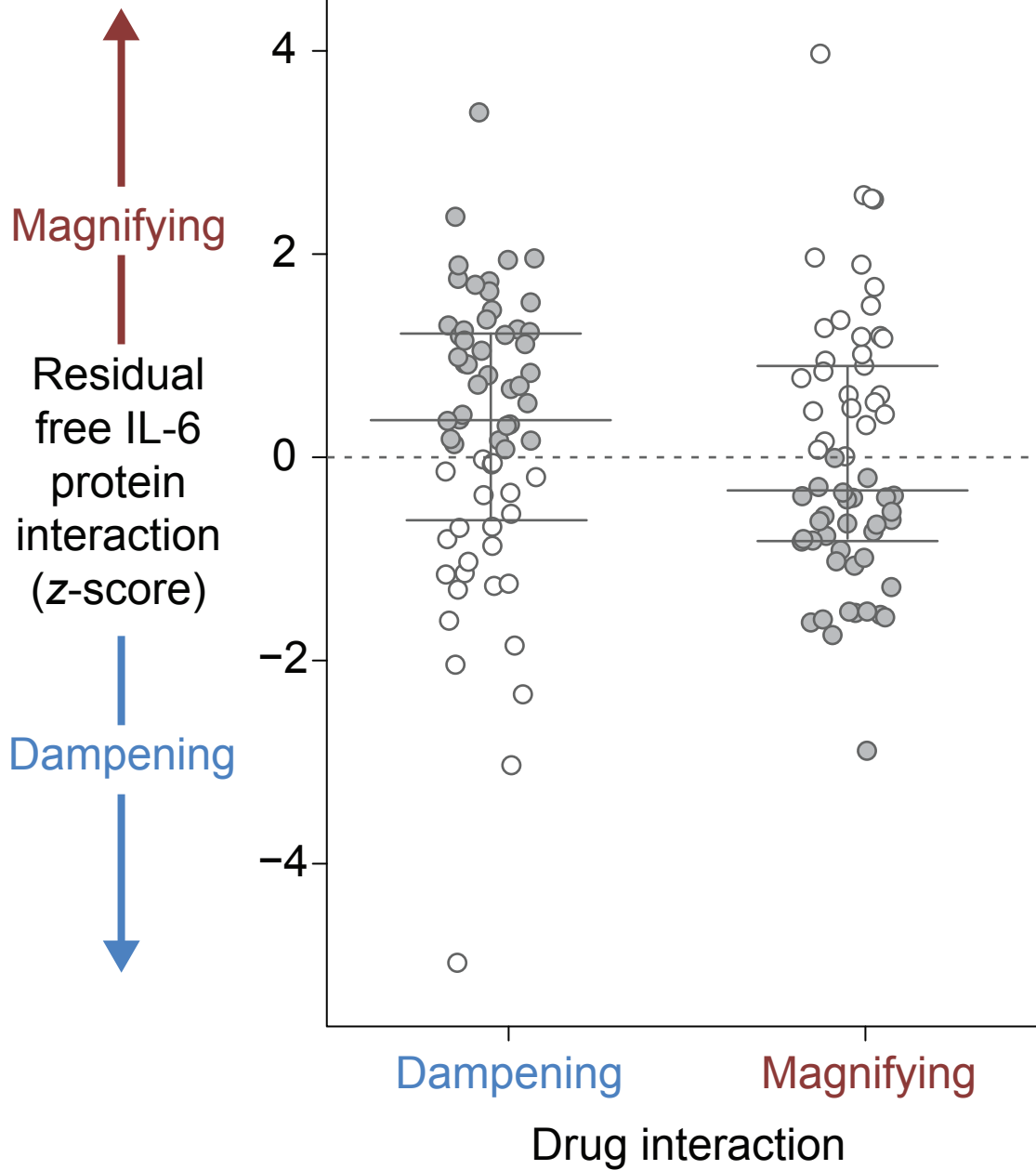
interactions are divided into magnifying or dampening depending on the direction of the original eQTL effect and the direction of the interaction.



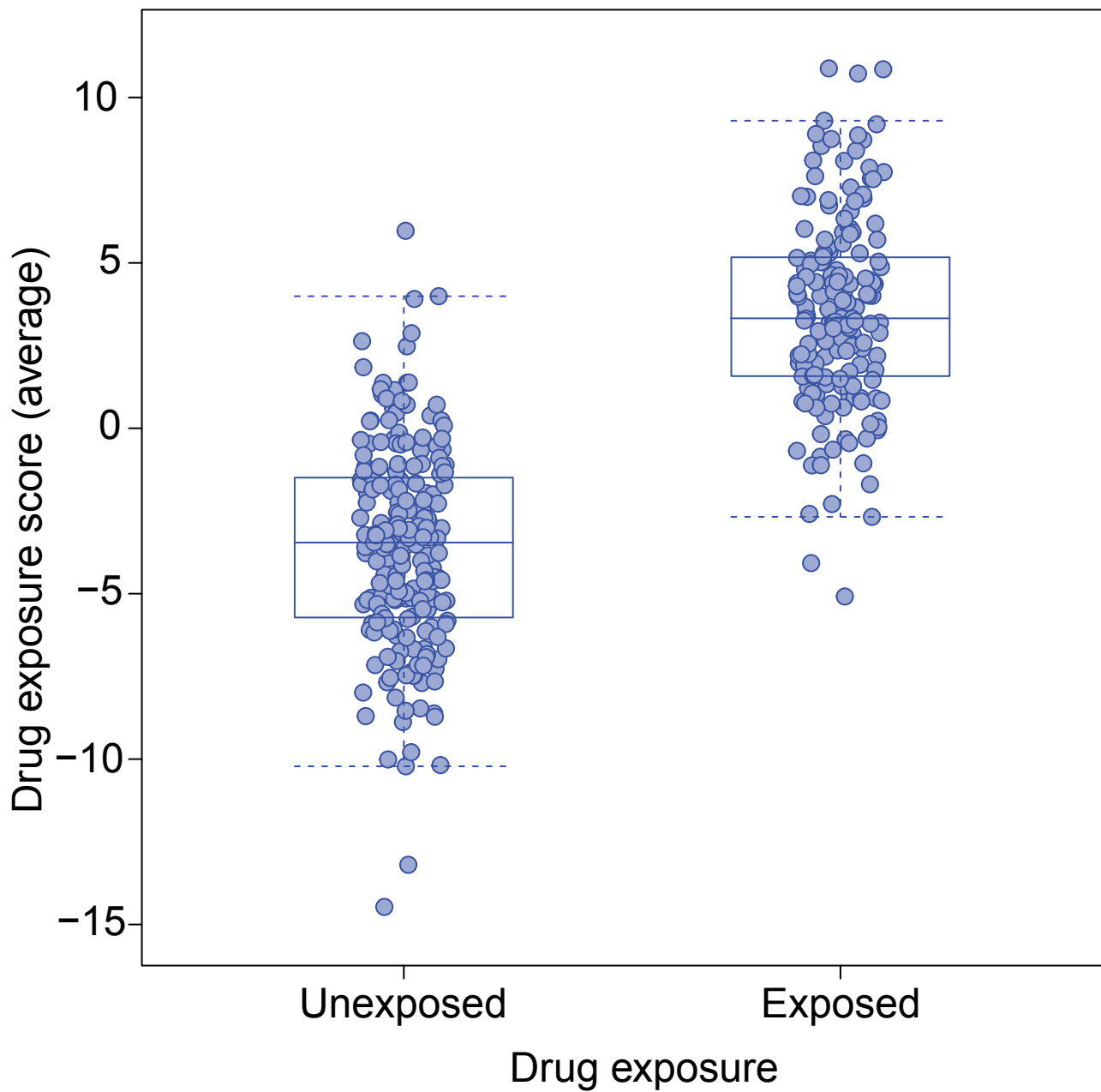
Supplementary Figure 9. Differential expression following drug exposure. Red points represent genes with $p < 0.01$.



Supplementary Figure 10. Relationship between free IL-6 protein levels and drug exposure. Free IL-6 protein levels plotted with respect to the drug exposure of the sample.



Supplementary Figure 11. Concordance of protein interactions with drug interactions. Residual protein interaction effects (after modeling drug exposure) are plotted against drug exposure interaction effects (grey indicates consistent direction).



Supplementary Figure 12. Relationship between drug exposure and drug exposure score. Drug exposure score calculated from 126 drug-eQTL interactions plotted with respect to the drug exposure of the sample.