**Table S1 Combination details.xlsx**

List of all parameter value combinations taken for the combination analysis.

**Table S2 Test1 combination AUCs.xlsx**

AUC values of CORUM ROC for all parameter combinations.

**Table S3 ES scores all combinations KEGG pathways.xlsx**

Table of the ES z-score values represented in Figure 3 (the NPP Parameter Combinations Heatmap). Colored by the values percentiles.

**Table S4 Compressed\_heatmap\_zscores.xlsx**

Table of the ES z-score values represented in Figure S4 (Compressed Combination Heatmap).

**Table S5 Corum\_InComplex\_pos\_linkages.xlsx**

List of 35,221 pairs of proteins that participate in shared complexes in the CORUM database. Used as the positive dataset for the ROC analysis.

**Table S6 Corum\_InComplex\_neg\_linkages.xlsx**

List of 171,106 random pairs of genes, filtered for duplicates and positives. Used as the negative dataset for the ROC analysis.