

S5 Table: Comparison of mouse input data and inferred host response network genes identified by expression and protein levels. Each cell gives the size of overlap between the two sets. Diagonal elements give the total number of elements in one set. ‘Candidate mRNA target’ gives the entire set of differentially expressed targets considered by MERLIN, which also includes the regulators. ‘Candidate mRNA regulator’ refers to the set of signaling proteins and transcription factors input to MERLIN. ‘Candidate protein regulator’ refers to the total set of proteins considered for MTG-LASSO. ‘Candidate mRNA (protein) regulator’ refers to regulators in the high-confidence sets derived from mRNA/protein levels.

| | Candidate mRNA target | Candidate mRNA regulator | Consensus mRNA regulator | Candidate protein regulator | Consensus protein regulator |
|-----------------------------|-----------------------|--------------------------|--------------------------|-----------------------------|-----------------------------|
| Candidate mRNA | 7240 | 1394 | 1252 | 938 | 13 |
| Candidate mRNA regulator | | 1394 | 1252 | 113 | 1 |
| Consensus mRNA regulator | | | 1252 | 108 | 1 |
| Candidate protein regulator | | | 1908 | 33 | |
| Consensus protein regulator | | | | 33 | |