

Additional file 7: Table S4: Model overview with number of parameters and interaction patterns that can be captured

Model	Number of parameters	Additive interaction	Negative/Positive epistasis	Reciprocal sign epistasis
Ridge regression	1.734.301	Yes	No	No
NN _{linear}	25.503	Yes	No	No
NN _{biosparse}	25.503	Yes	Yes	No
Biologically sparsified NN with all KEGG gene-pathway connections	52.868	Yes	Yes	Yes
Biologically sparsified NN with additional gene-gene interaction layer	219.861	Yes	Yes	Yes