

$$C^-: \{A^0\}, \{B^0\}, \{C^0\}$$

$$B^-: \{A^2\}, \{B^0\}, \{C^2\}$$

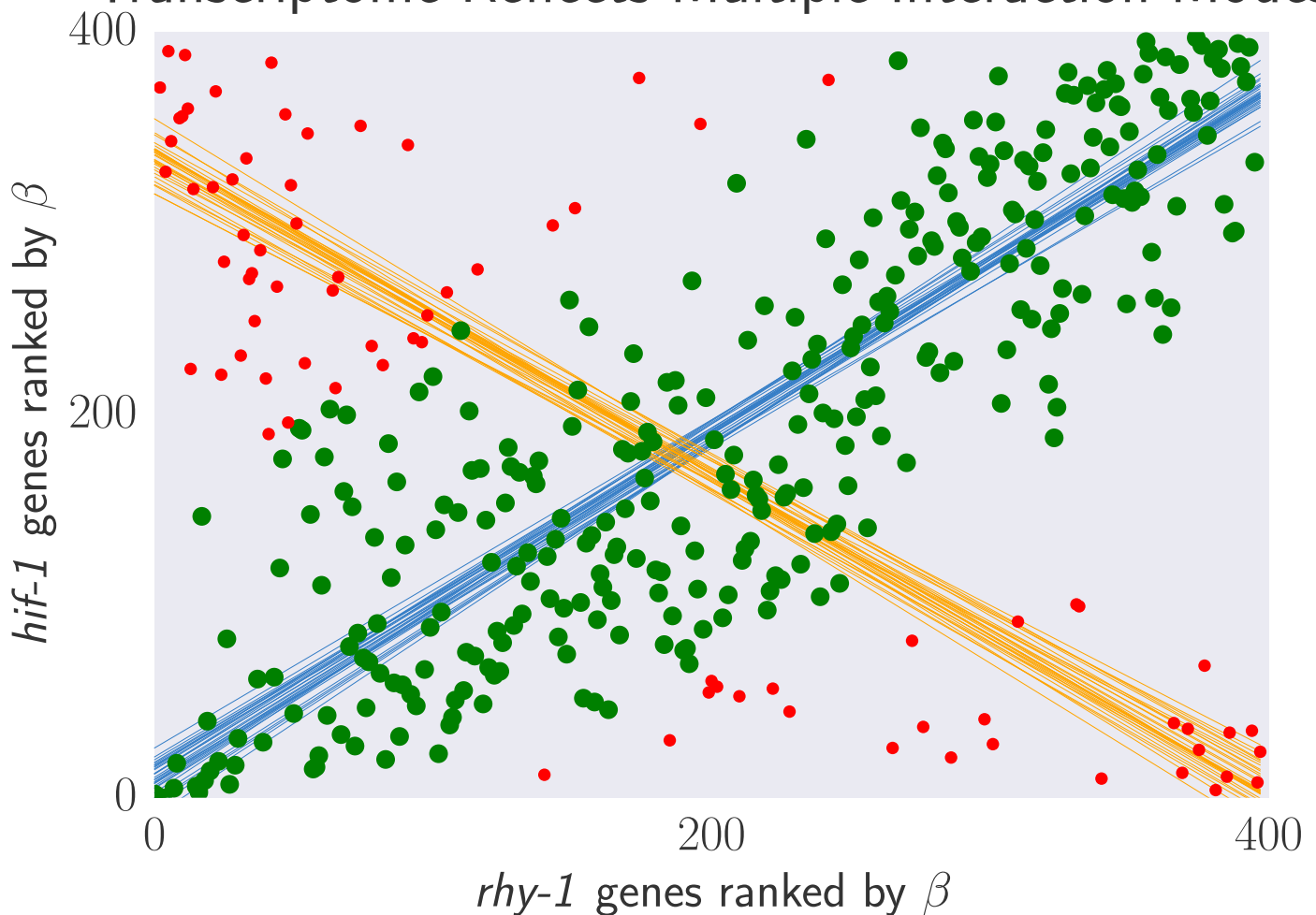
$$\rho(C, B) = \text{corr}(\{B^0\}, \{B^0\})$$

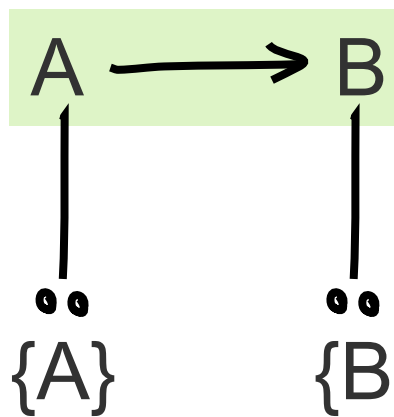
$$= 1$$

$$\rho(C, B) = \text{corr}(\{A^0\}\{A^2\}; \{C^0\}\{C^2\})$$

$$= -1$$

Transcriptome Reflects Multiple Interaction Modes

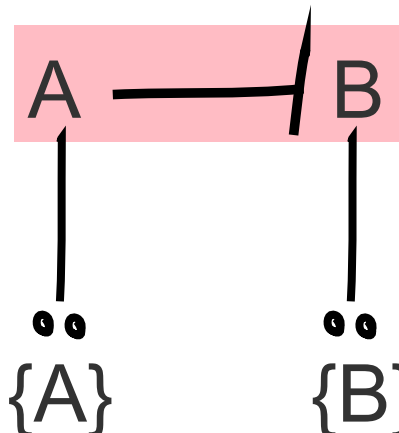




$A^-: \{A^0\}, \{B^0\}$

$B^-: \{A^1\}, \{B^0\}$

$$\rho(A, B) = \text{corr}(\{B^0\}\{B^0\}) = 1$$

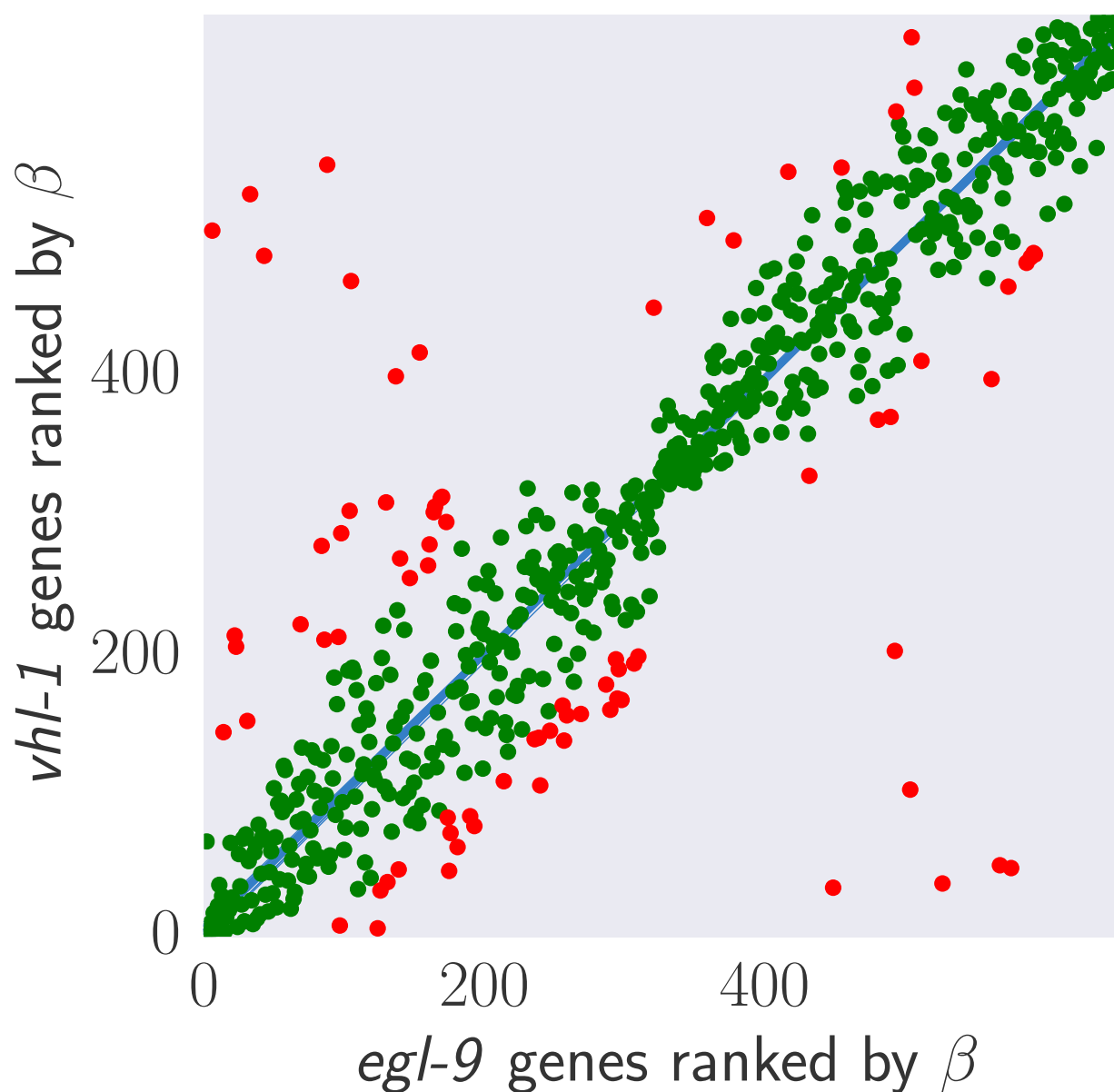


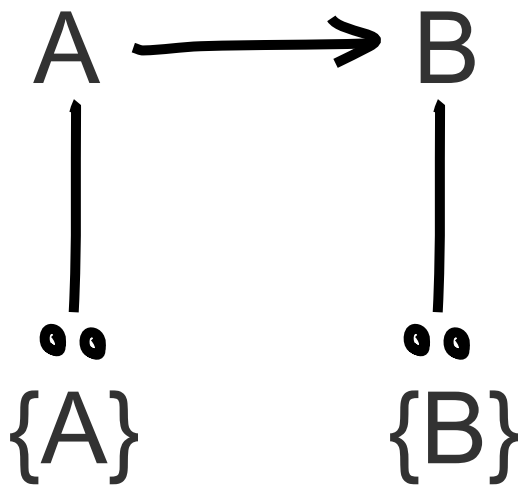
$A^-: \{A^0\}, \{B^2\}$

$B^-: \{A^1\}, \{B^0\}$

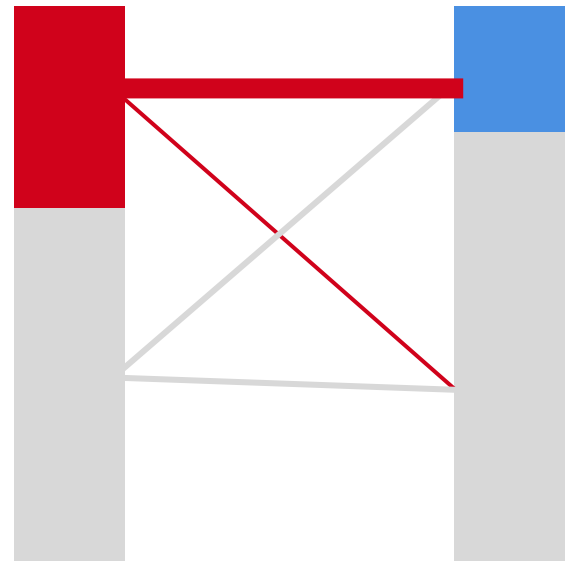
$$\rho(A, B) = \text{corr}(\{B^2\}\{B^0\}) = -1$$

Positive Genetic Interactions





$A^-: \{A^0\}, \{B^0\}$
 $B^-: \{A^1\}, \{B^0\}$



$P(B \text{ was drawn from } A)$

Positive Genetic Interaction
Probability

vhl-1

egl-9

hif-1

rhy-1

fog-2

vhl-1

egl-9

hif-1

rhy-1

fog-2

1:0

0:8

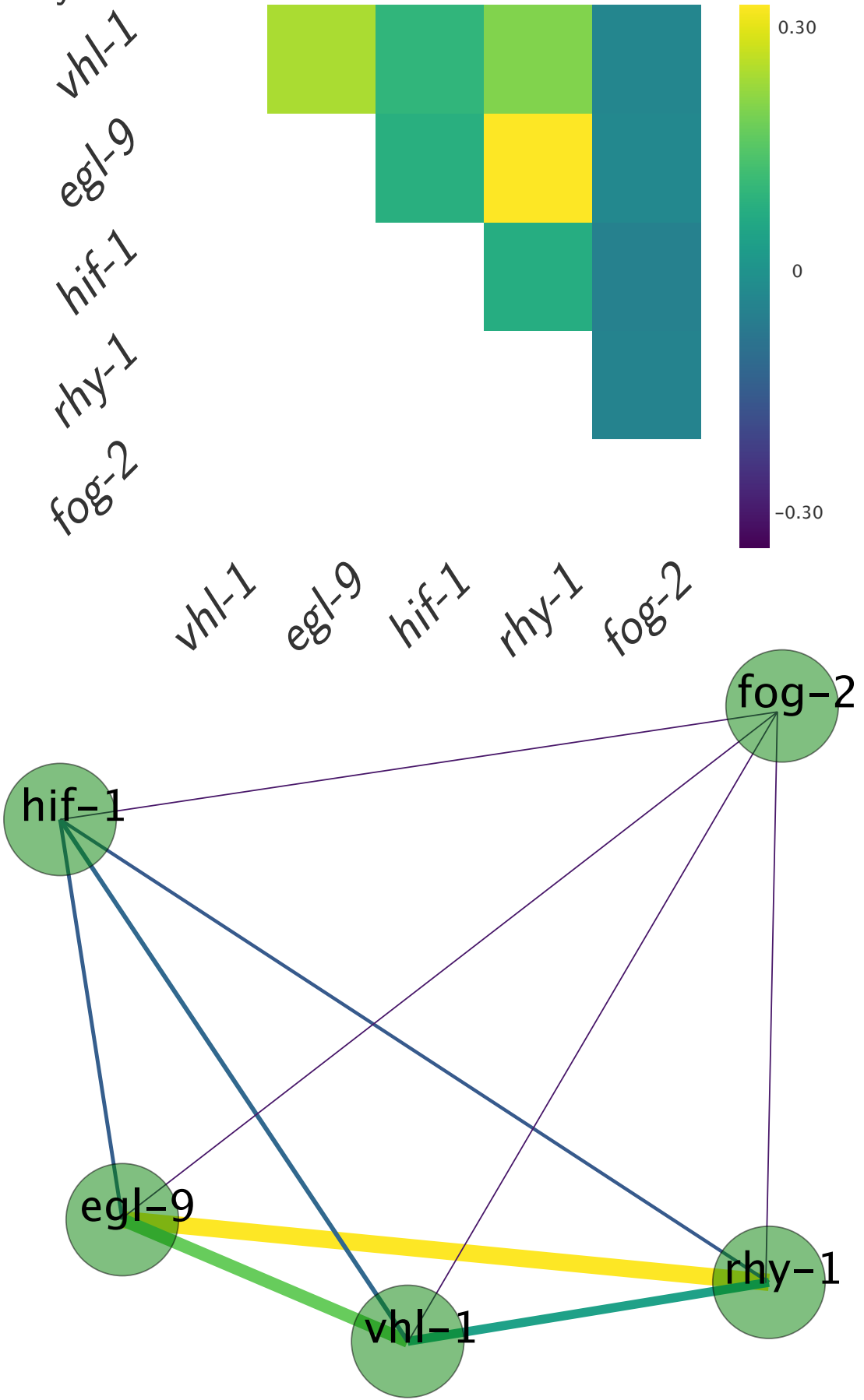
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0:4

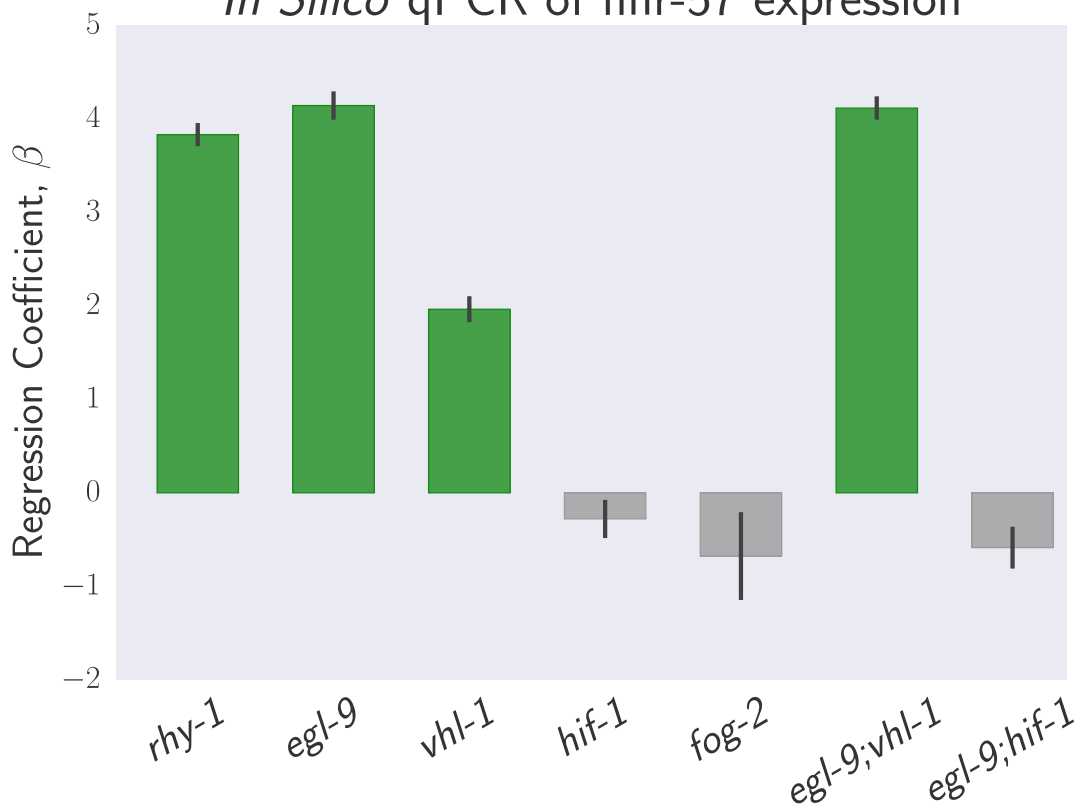
0:2

0:0

Robust Bayesian Correlations Predict Interaction Between Genes



In Silico qPCR of nhr-57 expression



In Silico qPCR

