# Predicting bacterial growth conditions from mRNA and protein abundances.

**Supplementary file**

Mehmet U. Caglar1, 2, 3, Claus O. Wilke3, 4, 5\*

1Department of Integrative Biology, The University of Texas at Austin, Austin, Texas, USA

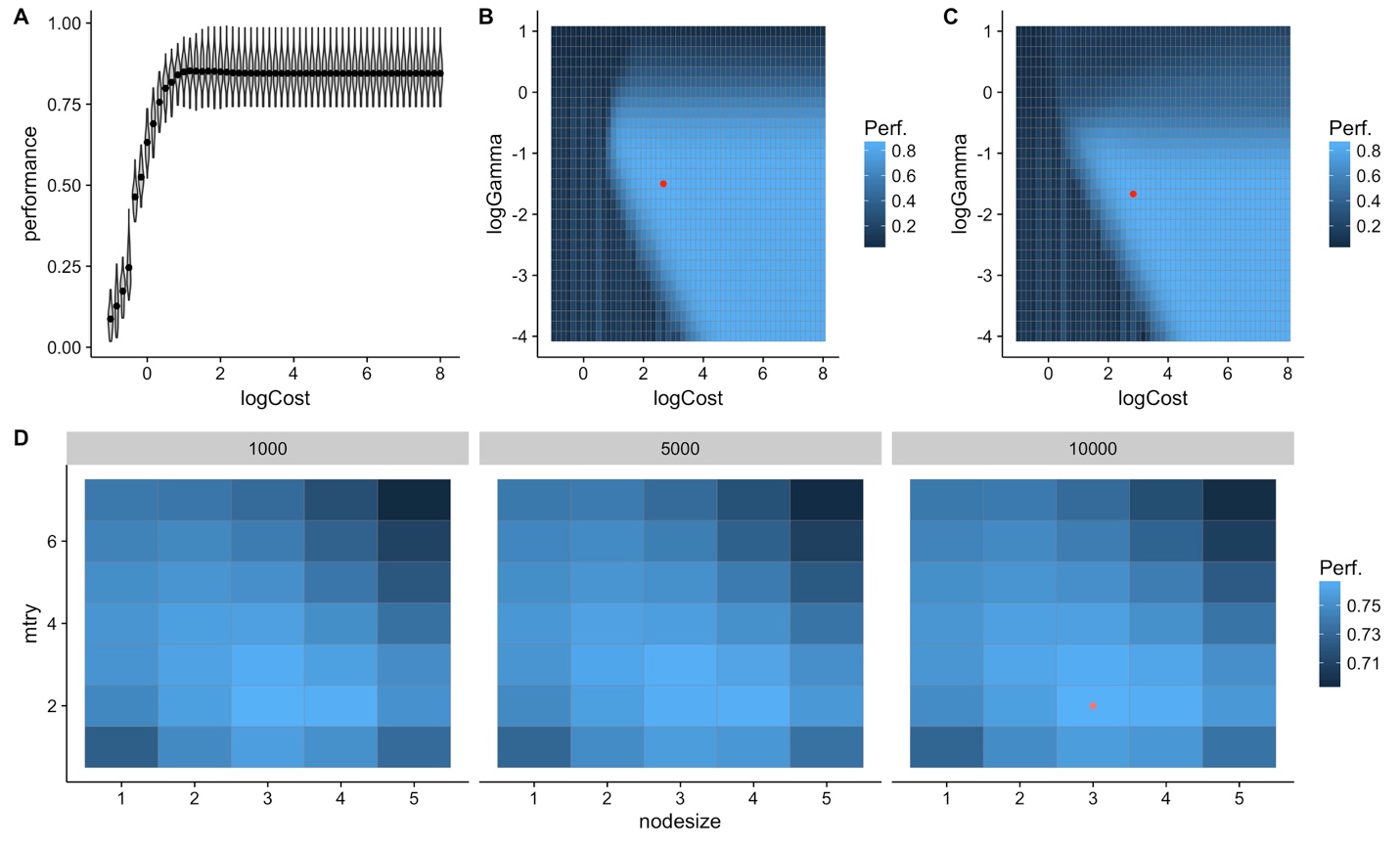
2Center for Computational Biology and Bioinformatics, The University of Texas at Austin, Austin, Texas, USA

3Institute for Cellular and Molecular Biology, The University of Texas at Austin, Austin, Texas, USA

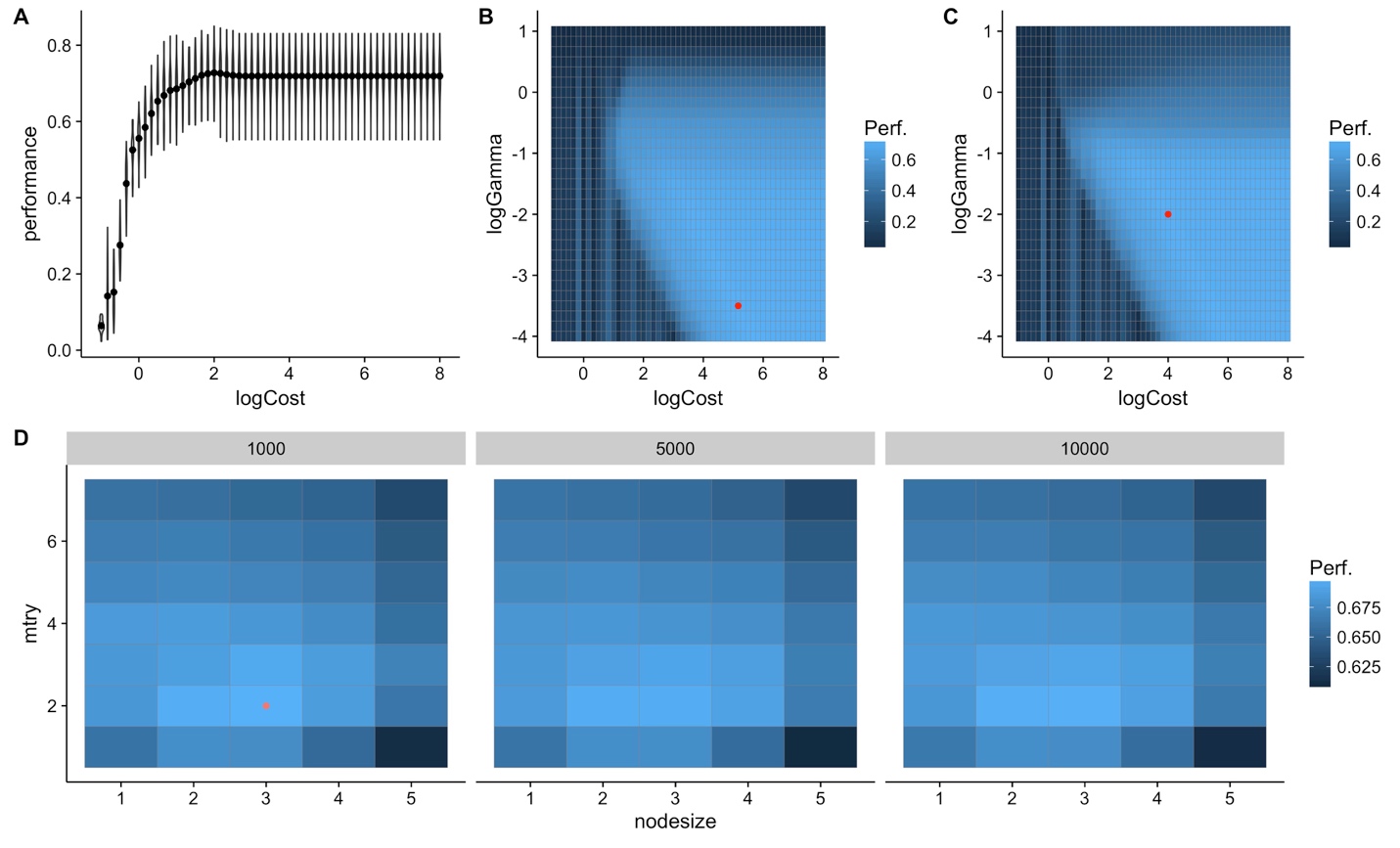
4Center for Systems and Synthetic Biology, The University of Texas at Austin, Austin, Texas, USA

5Department of Molecular Biosciences, The University of Texas at Austin, Austin, Texas, USA

\*Corresponding author: [wilke@austin.utexas.edu](mailto:wilke@austin.utexas.edu) (COW)



Supplementary figure 1. The model parameter and error distribution for mRNA data. A. parameter and error distribution with SVM using linear kernel, B. parameter and error distribution with SVM using radial kernel, C. parameter and error distribution with SVM using sigmoidal kernel, D. parameter and error distribution with SVM using random forest. SVM with radial kernel gives the best results xx/60 of the independent training&tuning runs.



Supplementary figure 2. The model parameter and error distribution for protein data. A. parameter and error distribution with SVM using linear kernel, B. parameter and error distribution with SVM using radial kernel, C. parameter and error distribution with SVM using sigmoidal kernel, D. parameter and error distribution with SVM using random forest. SVM with sigmoidal kernel gives the best results xx/60 of the independent training&tuning runs.



**Supplementary figure 4.** Complex predictions with intersection mRNA data. Corresponding multivariate F1 score is



**Supplementary figure 5.** Complex predictions with intersection protein data. Corresponding multivariate F1 score is

**Supplementary figure 6.** Complex predictions with intersection combined mRNA and protein data. Corresponding multivariate F1 score is