

Table 1. Phenotypic Correlations with Growth Predictions from Metabolic Reconstruction

True Positives (metabolic reconstruction predicted **growth** and **growth** was observed for each compound)

True Negatives (metabolic reconstruction predicted **no growth** and **no growth** was observed for each compound)

False Negatives (metabolic reconstruction predicted **no growth** but **growth** was observed for each compound)

False Positives (metabolic reconstruction predicted **growth** but **no growth** was observed for each compound)

Predicted vs observed categories	opacus_compare	opacus_working	delta-by-refinement
true positives:	39.00	49.00	10.00
false positives:	21.00	20.00	-1.00
true negatives:	80.00	81.00	1.00
false negatives:	54.00	44.00	-10.00
precision: $TP/(TP + FP)$	0.65	0.71	0.06
recall: $TP/(TP + FN)$	0.42	0.53	0.11
false-positive-rate: $FP/(FP + TN)$	0.21	0.20	-0.01
false-negative-rate: $FN/(TP + FN)$	0.58	0.47	-0.11
specificity: $TN/(TN + FP)$	0.79	0.80	0.01
accuracy: $(TP + TN)/(TP + FP + TN + FN)$	0.61	0.67	0.06