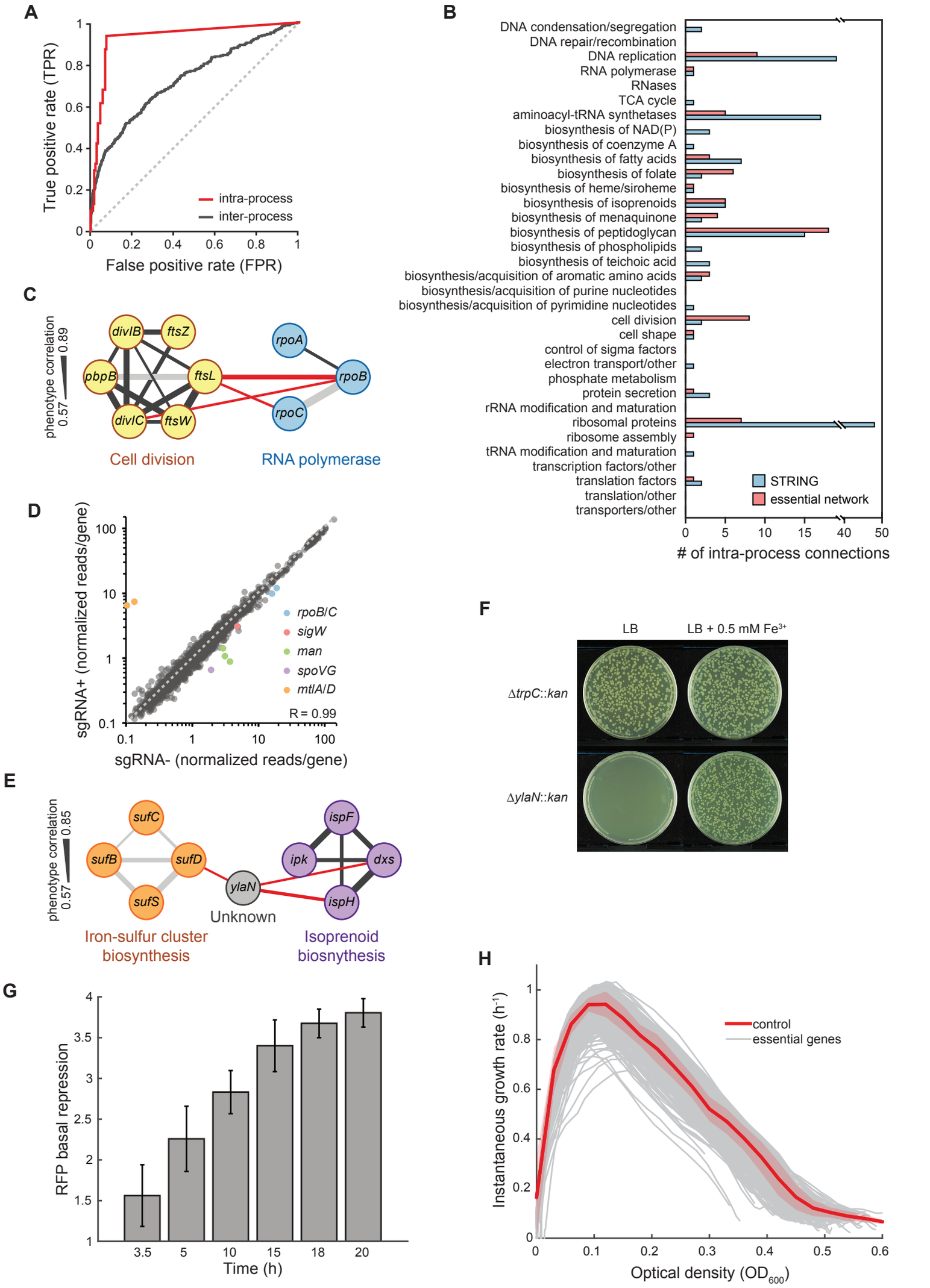
Figure S4


A
True positive rate (TPR)
False positive rate (FPR)
intra-process
inter-process
B
DNA condensation/segregation
DNA repair/recombination
DNA replication
RNA polymerase
RNases
TCA cycle
aminoacyl-tRNA synthetases
biosynthesis of NAD(P)
biosynthesis of coenzyme A
biosynthesis of fatty acids
biosynthesis of folate
biosynthesis of heme/siroheme
biosynthesis of isoprenoids
biosynthesis of menaquinone
biosynthesis of peptidoglycan
biosynthesis of phospholipids
biosynthesis of teichoic acid
biosynthesis/acquisition of aromatic amino acids
biosynthesis/acquisition of purine nucleotides
biosynthesis/acquisition of pyrimidine nucleotides
cell division
cell shape
control of sigma factors
electron transport/other
phosphate metabolism
protein secretion
rRNA modification and maturation
ribosomal proteins
ribosome assembly
tRNA modification and maturation
transcription factors/other
translation factors
translation/other
transporters/other
STRING
essential network
# of intra-process connections
C
phenotype correlation
0.89
0.57
divIB
ftsZ
pbpB
ftsL
divIC
ftsW
rpoA
rpoB
rpoC
Cell division
RNA polymerase
D
sgRNA+ (normalized reads/gene)
sgRNA- (normalized reads/gene)
rpoB/C
sigW
man
spoVG
mtlA/D
R = 0.99
E
phenotype correlation
0.85
0.57
sufC
sufB
sufD
sufS
ylaN
Unknown
ispF
ipk
dxs
ispH
Iron-sulfur cluster biosynthesis
Isoprenoid biosnythesis
F
LB
LB + 0.5 mM Fe3+
ΔtrpC::kan
ΔylaN::kan
G
RFP basal repression
Time (h)
H
Instantaneous growth rate (h-1)
Optical density (OD600)
control
essential genes