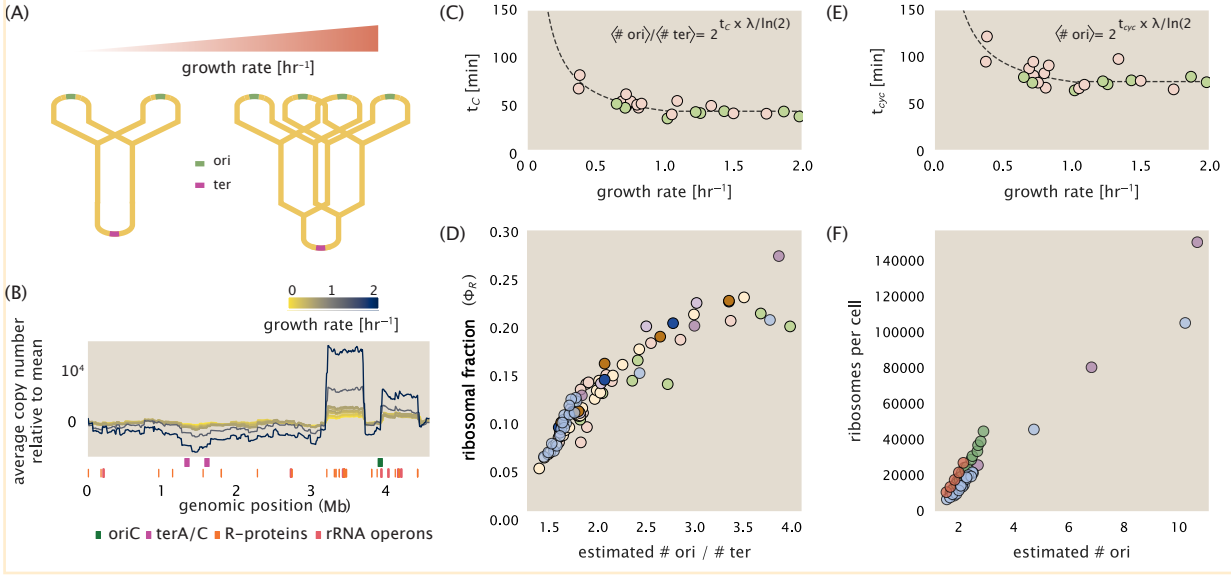
multiple replications forks skew gene dosage in favor of additional ribosomes
(A)
growth rate [hr⁻¹]
ori
ter
(B)
0 1 2
growth rate [hr⁻¹]
average copy number relative to mean
10⁴
0
0 1 2 3 4
genomic position (Mb)
oriC terA/C R-proteins rRNA operons
(C)
⟨# ori⟩/⟨# ter⟩= 2 tC x λ/ln(2)
tC [min]
growth rate [hr⁻¹]
(D)
ribosomal fraction (ΦR)
estimated # ori / # ter
(E)
⟨# ori⟩= 2 tcyc x λ/ln(2
tcyc [min]
growth rate [hr⁻¹]
(F)
ribosomes per cell
estimated # ori
Li et al. 2014
Peebo et al 2015
Schmidt et al. 2016
Valgepea et al 2013
Si et al. 2017
Dai et al. 2016
Scott et al. 2010
Bremmer & Dennis 2006
Forchhammer & Lindahl 1971