

Parameter	Description	Value
α_k	Basal expression rate of ComK	0.0028 nM/s
β_k	Saturating expression rate of ComK positive feedback	0.049 nM/s
β_s	Unrepressed expression rate of ComS	0.057 nM/s
k_k	ComK concentration for half-maximal ComK activation	100 nM
k_s	ComK concentration for half-maximal ComS repression	110 nM
δ_k	Unrepressed degradation rate of ComK	0.0014 s ⁻¹
δ_s	Unrepressed degradation rate of ComS	0.0014 s ⁻¹
Γ_k	ComK concentration for half-maximal degradation	500 nM
Γ_s	ComS concentration for half-maximal degradation	50 nM
n	Hill coefficient of ComK positive feedback	2
p	Hill coefficient of ComS repression by ComK	5

TABLE S1: Parameters of the dynamical model. The actual values of the parameters are obtained from the dimensionless parameters given in Table S2.