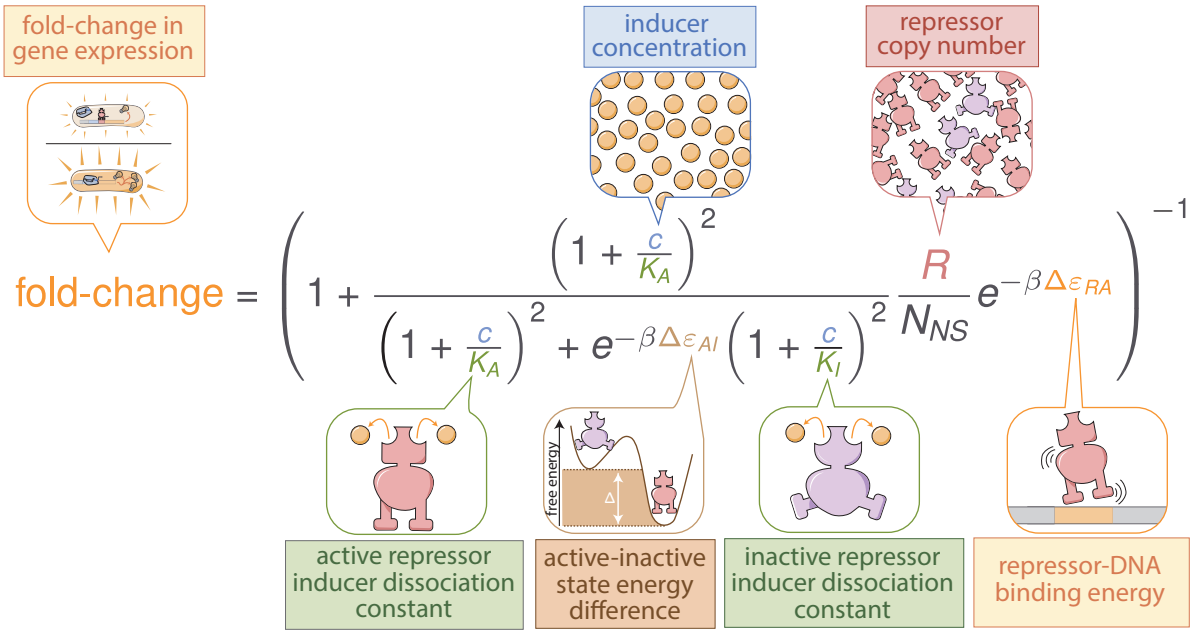
fold-change in gene expression
inducer concentration
repressor copy number
fold-change = $\left(1 + \frac{\left(1 + \frac{c}{K_A}\right)^2}{\left(1 + \frac{c}{K_A}\right)^2 + e^{-\beta\Delta\varepsilon_{AI}}\left(1 + \frac{c}{K_I}\right)^2} \frac{R}{N_{NS}} e^{-\beta\Delta\varepsilon_{RA}}\right)^{-1}$
free energy
Δ
active repressor inducer dissociation constant
active-inactive state energy difference
inactive repressor inducer dissociation constant
repressor-DNA binding energy