

Metabolome

$$[\text{metab}]_{ss} \approx \frac{k_{cat}^{RDS} \times K_m^{\text{decay}}}{k_{cat}^{\text{decay}}} \times \frac{[RDS \text{ Enzyme}]}{[\text{decay Enzyme}]}$$

Proteome

$$[\text{Protein}]_{ss} \approx \frac{\text{translation rate}}{\text{protein decay rate}} \times [\text{mRNA}]_{ss}$$

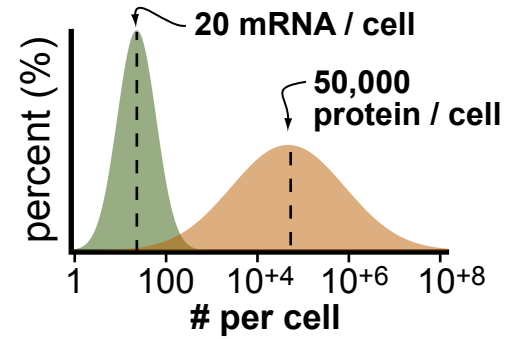
Transcriptome

$$[\text{mRNA}]_{ss} \approx \frac{\text{transcription rate}}{\text{mRNA decay rate}} \times [\text{DNA}]_{ss}$$

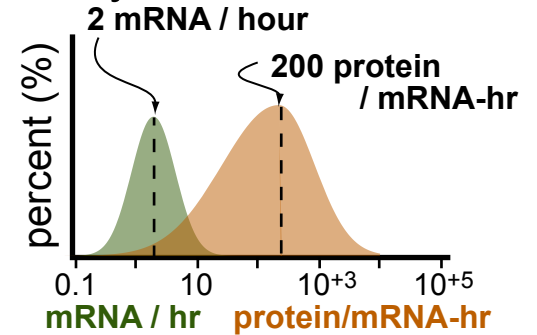
Genome

DATA

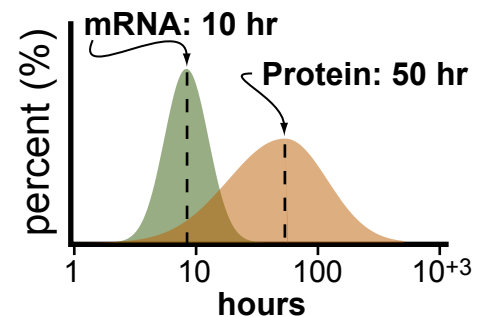
Total Concentrations:



Synthesis Rates:



Half-Lives:



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