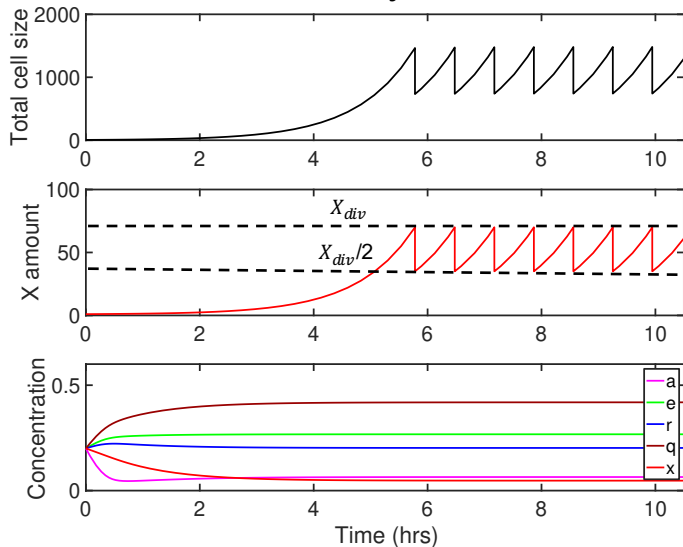


A

## Model dynamics



B

## Steady-state

$$\begin{aligned}
 e &= f_E (1 - a) && \text{Protein sector concentration} \\
 r &= f_R (1 - a) && = \\
 q &= f_Q (1 - a) && \text{sector allocation fraction} \\
 x &= f_X (1 - a) && \times \\
 &&& \text{total protein concentration}
 \end{aligned}$$

$$k f_E (1 - a) = \sigma \left[ f_R - \frac{r_i}{1 - a} \right] \frac{a}{a + a_{sat}}$$

Balance between  
precursor synthesis and protein synthesis

$$V_{div} = \frac{X_{div}}{f_X (1 - a)}$$

Size at division  
=  
X division threshold  
/  
X concentration