Steady-state equations

$$e = f_E\,(1 - a)$$
$$r = f_R\,(1 - a)$$
$$q = f_Q\,(1 - a)$$
$$x = f_X\,(1 - a)$$

Protein sector concentration
=
sector allocation fraction
X
total protein concentration

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

Balance between
precursor synthesis and protein synthesis

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

Size at division
=
X division threshold
/
X concentration