Alexus Locke

mRNA balance $\quad \dot{m}_i = r_{x,i} u_i - (\mu + \theta_{m,i}) m_i + \lambda_i$

protein balance $\quad \dot{p}_i = r_{L,i} w_i - (\mu + \theta_{p,i}) p_i$

$\mu =$ dilution due to

    ¹⁾ intracellular concentration

    2) culture volume $(\dot{V}_L = 0)$

where $\quad \mu = \beta^{-1} \dot{\beta}$

Since the system is cell-free there is no intracellular concentration $\therefore \mu = 0$ and

$$\dot{m} = r_x u - \theta_m m + \lambda$$
$$\dot{p} = r_L w - \theta_p p$$