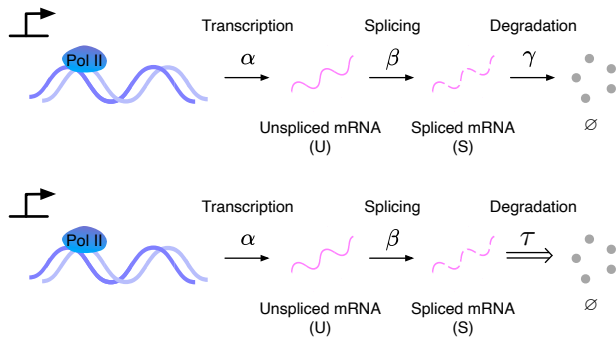


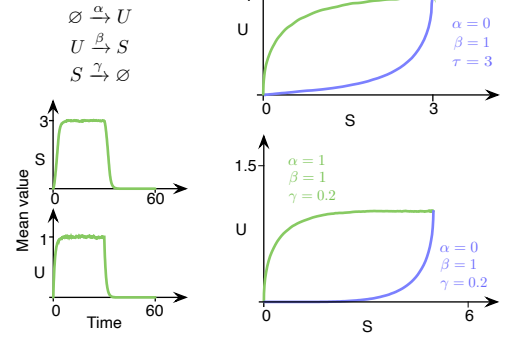
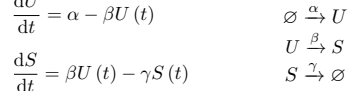
d

RNA Velocity



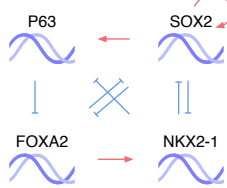
$$\frac{dU}{dt} = \alpha - \beta U(t)$$

$$\frac{dS}{dt} = \beta U(t) - \gamma S(t)$$



e

Lung Cancer AST Network



$$\frac{dF}{dt} = f_1(P, S) - d_F F, f_1(P, S) = \frac{\alpha_F}{1 + a_1 P^2 + a_2 S^2}$$

$$\frac{dN}{dt} = f_2(F, S) - d_N N, f_2(F, S) = \alpha_N \frac{1 + F^2}{1 + a_3 F^2 + a_4 S^2}$$

$$\frac{dP}{dt} = f_3(S, N) - d_P P, f_3(S, N) = \alpha_P \frac{1 + S^2}{1 + a_5 S^2 + a_6 N^2}$$

$$\frac{dS}{dt} = f_4(S, F, N) - d_S S, f_4(S, F, N) = \beta_S \frac{S^2}{a_7^2 + S^2} + \frac{\alpha_S}{1 + a_8 F^2 + a_9 N^2}$$

f

