

# ODE representation of PTM model

A

$$\frac{da}{dt} = E_T \frac{(k_1 k_2 r_2 a^2 \mid k_1 r_1 \tau_2 a \mid r_0 \tau_1 \tau_2)}{(k_1 k_2 a^2 + k_1 \tau_2 a + \tau_1 \tau_2)} + \boxed{e} - \boxed{ga}$$

tag-dependent tag addition  
enhancer-looping-dependent tag addition  
tag removal

● Stable point: addition = removal

$$\text{sensitivity} = \frac{\Delta \text{tag}}{\Delta e}$$

