0.1 TF Kill Switch

$$\frac{\mathrm{d}V}{\mathrm{d}t} = -k_{cat} V [C_{\mathrm{Cas},1}] \tag{1}$$

$$\frac{\mathrm{d}[C_{\mathrm{Cas},1}]}{\mathrm{d}t} = k_{C_g}[P_{\mathrm{Cas}}][G_1] - k_{cat} V [C_{\mathrm{Cas},1}] - \delta_{C_g}[C_{\mathrm{Cas},1}] \tag{2}$$

$$\frac{\mathrm{d}[C_{\mathrm{Cas},2}]}{\mathrm{d}t} = k_{C_g}[P_{\mathrm{Cas}}][G_2] - k_{cat}[C_{\mathrm{Cas},2}] H - \delta_{C_g}[C_{\mathrm{Cas},2}] \tag{3}$$

$$\frac{\mathrm{d}H}{\mathrm{d}t} = -k_{cat}[C_{\mathrm{Cas},2}] H \tag{4}$$

$$\frac{\mathrm{d}[{C_{\mathrm{Cas},1}}^*]}{\mathrm{d}t} = -\delta_{C_g}[{C_{\mathrm{Cas},1}}^*] + k_{cat} V [C_{\mathrm{Cas},1}] \tag{5}$$

$$\frac{\mathrm{d}[{C_{\mathrm{Cas},2}}^*]}{\mathrm{d}t} = -\delta_{C_g}[{C_{\mathrm{Cas},2}}^*] + k_{cat}[C_{\mathrm{Cas},2}] H \tag{6}$$

$$\frac{\mathrm{d}H^*}{\mathrm{d}t} = k_{cat}[C_{\mathrm{Cas},2}] H \tag{7}$$

$$\frac{\mathrm{d}[P_{TF}]}{\mathrm{d}t} = \alpha_{p,P_{TF}} V - \delta_{p,P_{TF}}[P_{TF}] \tag{8}$$

$$\frac{\mathrm{d}[P_{\mathrm{Cas}}]}{\mathrm{d}t} = \alpha_{p,P_{\mathrm{Cas}}} V - \delta_{p,P_{\mathrm{Cas}}}[P_{\mathrm{Cas}}] - k_{C_g}[P_{\mathrm{Cas}}][G_1] - k_{C_g}[P_{\mathrm{Cas}}][G_2] \tag{9}$$

$$\frac{\mathrm{d}[G_1]}{\mathrm{d}t} = \alpha_{r,G_1} \frac{[P_{TF}]^n}{K_a^n + [P_{TF}]^n} V - \delta_g[G_1] - k_{C_g}[P_{\mathrm{Cas}}][G_1] \tag{10}$$

$$\frac{\mathrm{d}[G_2]}{\mathrm{d}t} = \alpha_{r,G_2} V - \delta_g[G_2] - k_{C_g}[P_{\mathrm{Cas}}][G_2] \tag{11}$$