# Indirect Response Model Equations

Change in PD Response (dR) over time (dt)

$$\frac{dR}{dt} = K_{in} - K_{out} \times R$$

Kin = zero-order production rate
Kout = first-order elimination rate
R = PD response

What happens at steady-state?

$$\frac{dR}{dt} = 0 = K_{in} - K_{out} \times R_{baseline}$$

$$K_{out} \times R_{baseline} = K_{in}$$

$$R_{baseline} = \frac{K_{in}}{K_{out}}$$