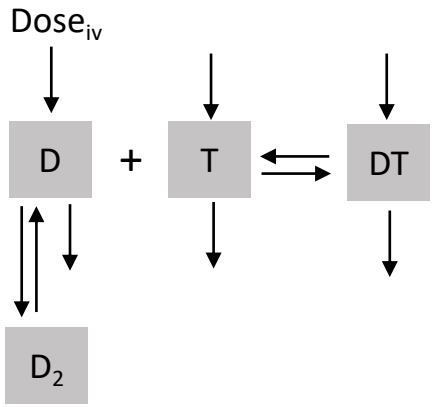
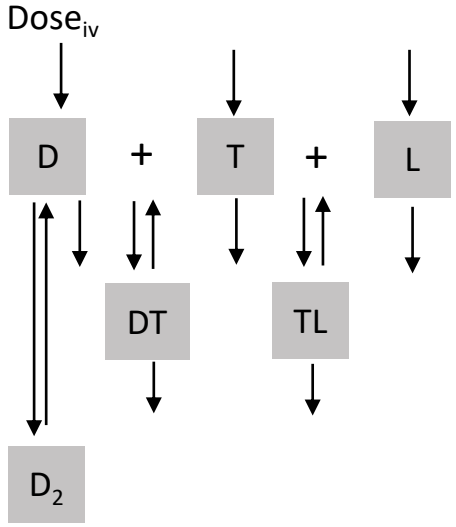
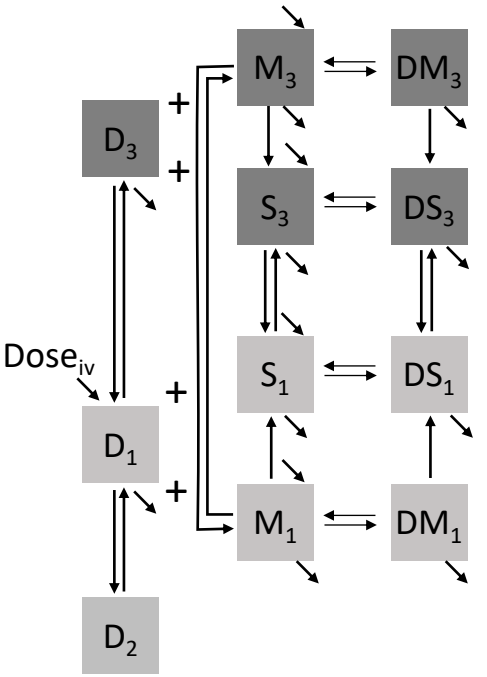
Steady State Inhibition Metric (SSIM) = $\frac{C_{ss}}{C_{ss} + IC_{50}}$

| Name | Binding | TMDD | TMDD+L | TMDD+tissue |
|---|---|---|---|---|
| Tissue | In vitro | Circulation | Circulation | Tissue |
| Ligand | no | no | yes | no |
| $IC_{50}$ | $K_{ss}$ | $K_{ss} \cdot T_{fold}$ | $K_{ss} \cdot T_{fold} \cdot L_{fold}$ | $\frac{K_{ss} \cdot T_{fold}}{B}$ |
| Model |  |  |  |  |









D = Drug
T = Target
L = Ligand
M = Membrane-bound target
S = Soluble target (shed)

1 = central compartment
2 = peripheral compartment
3 = tissue compartment

$T_{fold}$ = fold-increase in total target after binding drug
$L_{fold}$ = fold-increase in ligand after drug binds target
B = tissue biodistribution coefficient