**Figure 5-source data 2.** Population parameter estimates for the fits of the model with lowest AIC in **Figure 5-source data 1** to the T cell and virus dynamics. RSE: relative standard error. Empty fields represent cases when the standard deviation of random effects, $σ\_{ψ}$ , was fixed to zero. Values of $\overbar{ψ}$for $β,ω\_{4},ω\_{8}$ and $I\_{50}$ shown here are transformed assuming a blood volume of 3×105 μL (calculated assuming blood:weight ratio of 60mL/Kg and body weight of 5Kg). Red values represent an RSE greater than 100% implying that the number of data points may not be enough to estimate the respective parameter.

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | $$\overbar{ψ}$$ | $$σ\_{ψ}$$ | **%RSE for:** |
| $$\overbar{ψ}$$ | $$σ\_{ψ}$$ |
| $$K\_{p}$$ | 3.2 | 0.2 | 1 |  |
| $$ς\_{K\_{p},WT}=-0.02$$ | 500 |
| $$ς\_{K\_{p},ΔCCR5}=0.02$$ | 223 |
| $$β$$ | -3.9 | 0.4 | 38 | 15 |
| $$π$$ | 5.3 | 0.5 | 2 |  |
| $$ω\_{4}$$ | -2.2 | 0.4 | 1 | 22 |
| $$ω\_{8}$$ | -2.9 | 0.7 | 1.8 | 19 |
| $$ς\_{ω\_{8},ATI}=1.21$$ | 0.8 | 21 | 23 |
| $$I\_{50}$$ | 0.2 | 0.7 | 3 | 22 |
| $$ς\_{I\_{50},ATI}=0.85$$ | 0.6 | 29 | 34 |
| $$d\_{h}$$ | 0.005 | 0.6 | 15 | 25 |
| $$ς\_{d\_{h},ATI}=2.7$$ | 1.9 | 20 | 20 |
| $$t\_{sa}$$ | 4.7 | 1 | 40 |  |
| $$ς\_{t\_{sa},WT}=1.0$$ | 62 |
| $$ς\_{t\_{sa},ΔCCR5}=1.5$$ | 30 |
| $$k\_{T}$$ | 0.5 | 0.1 | 4 | 21 |
| $$k\_{H}$$ | 1.14 | 0.1 | 4 | 21 |
|  | **Parameter value** | **%RSE** |
| $$corr(\hat{r}\_{s},λ\_{n})$$ | 0.6 | 22 |
| $$corr(\hat{r}\_{e},λ\_{n})$$ | 0.6 | 25 |
| $corr(I\_{50}$**,**$d\_{h})$ | -0.96 | 16 |
| $corr(ω\_{8}$**,**$d\_{h})$ | 0.55 | 41 |
| $$corr(I\_{50},ω\_{8})$$ | -0.77 | 14 |
| $corr(π$**,**$β)$ | -0.82 | 8 |
| $corr(k\_{T}$**,**$k\_{H})$ | -0.92 | 6 |
| $$σ\_{N}$$ | 0.2 | 2 |
| $$σ\_{R}$$ | 0.16 | 2 |
| $$σ\_{C\_{4}}$$ | 0.14 | 1.8 |
| $$σ\_{C\_{8}}$$ | 0.19 | 1.8 |
| $$σ\_{V}$$ | 0.5 | 2.6 |
| $$σ\_{E}$$ | 0.18 | 9.4 |
| $$σ\_{M}$$ | 0.3 | 9.6 |