**Figure 5-source data 3.** Individual parameter estimates for the fits of the model in **equations 2-3** in main text(lowest AIC in **Figure 5-source data 1**) to the T cell and virus dynamics. 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). Shown are individual estimates for animals that continued study after ATI.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Control** | **WT-Transplant** | **ΔCCR5-Transplant** |
| **Par.****ID** | **Z09087** | **Z09106** | **Z09192** | **Z09204** | **Z09144** | **Z08214** | **A11200** | **Z09196** | **A11219** | **T10187** | **R10159** | **T10173** | **Z11151** | **Z12420** |
| $\hat{r}\_{p}^{j}$**(1/day)** | 0.01 | 0.03 | 0.04 | 0.04 | 0.03 | 0.02 | 0.02 | 0.06 | 0.01 | 0.04 | 0.03 | 0.02 | 0.03 | 0.06 |
| $\hat{r}\_{s}^{j}$**(1/day)** | 0.05 | 0.06 | 0.08 | 0.06 | 0.09 | 0.12 | 0.07 | 0.14 | 0.11 | 0.10 | 0.07 | 0.06 | 0.06 | 0.08 |
| $\hat{r}\_{m}^{j}$ **(1/day)** | 0.03 | 0.04 | 0.05 | 0.03 | 0.06 | 0.08 | 0.05 | 0.13 | 0.05 | 0.06 | 0.05 | 0.04 | 0.02 | 0.07 |
| $\hat{r}\_{e}^{j}$**(1/day)** | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| $\hat{d}\_{n}^{j}$**(1/day)** | 0.01 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.04 | 0.03 | 0.04 | 0.04 | 0.02 | 0.03 |
| $λ\_{p}^{j}$**(1/day)** | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 |
| $λ\_{n}^{j}$**(1/day)** | 0.002 | 0.004 | 0.004 | 0.003 | 0.003 | 0.004 | 0.003 | 0.005 | 0.006 | 0.005 | 0.006 | 0.006 | 0.003 | 0.005 |
| $λ\_{s}^{j}$**(1/day)** | 0.02 | 0.01 | 0.01 | 0.01 | 0.04 | 0.01 | 0.01 | 0.03 | 0.02 | 0.01 | 0.02 | 0.01 | 0.03 | 0.01 |
| $λ\_{m}^{j}$ **(1/day)** | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| $$K\_{p}^{j}$$$\left(cells\right)$ | 108.8 | 108.7 | 108.9 | 108.9 | 108.6 | 108.8 | 108.7 | 108.6 | 108.5 | 108.6 | 108.9 | 108.7 | 108.8 | 108.6 |
| $$K\_{s}^{j}$$$\left(\frac{cells}{μL}\right)$ | 1451.7 | 1203.6 | 1919.4 | 1596.1 | 875.6 | 1361.1 | 1008.3 | 789.9 | 717.1 | 959.9 | 1862.2 | 1175.3 | 1478.9 | 843.6 |
| $K\_{m}^{j}$$$\left(\frac{cells}{μL}\right)$$ | 543.4 | 687.4 | 813.0 | 432.7 | 271.6 | 413.4 | 369.5 | 350.0 | 163.4 | 248.6 | 407.9 | 206.5 | 419.3 | 256.9 |
| $K\_{e}^{j}$$\left(\frac{cells}{μL}\right)$ | 1314.2 | 1089.6 | 1737.7 | 1445.0 | 792.7 | 1232.2 | 912.8 | 715.1 | 649.2 | 869.0 | 1685.9 | 1064.0 | 1338.9 | 763.8 |
| $$k\_{T}^{j}$$**(1/day)** | 0.54 | 0.55 | 0.54 | 0.54 | 0.56 | 0.70 | 0.45 | 0.57 | 0.55 | 0.46 | 0.55 | 0.43 | 0.56 | 0.58 |
| $$k\_{H}^{j}$$ **(1/day)** | 1.14 | 1.13 | 1.13 | 1.14 | 1.10 | 1.18 | 1.09 | 1.13 | 1.13 | 1.16 | 1.25 | 1.18 | 1.13 | 1.12 |
| $β^{j}$$\left(\frac{μL}{copies\*day}\right)$ | 0.0009 | 0.0004 | 0.0001 | 0.0004 | 0.0001 | 0.0001 | 0.0001 | 0.0002 | 0.0001 | 0.0002 | 0.0000 | 0.0001 | 0.0011 | 0.0002 |
| $t\_{sa}^{j}$ **(days)** | 3.1 | 3.8 | 8.4 | 4.2 | 9.6 | 16.1 | 11.1 | 14.0 | 17.3 | 8.2 | 10.3 | 15.8 | 12.3 | 46.0 |
| $$π^{j}$$ **(1/day)** | 105.0 | 105.6 | 105.2 | 104.7 | 105.7 | 105.9 | 105.4 | 105.5 | 105.4 | 105.2 | 105.4 | 105.3 | 104.4 | 105.1 |
| $ω\_{4}^{j}$$\left(\frac{μL}{cells\*day}\right)$ | 0.004 | 0.011 | 0.002 | 0.007 | 0.016 | 0.005 | 0.003 | 0.010 | 0.003 | 0.068 | 0.003 | 0.009 | 0.008 | 0.007 |
| $ω\_{8}^{j}$$\left(\frac{μL}{cells\*day}\right)$ | 0.0002 | 0.0016 | 0.0006 | 0.0136 | 0.0029 | 0.0088 | 0.0119 | 0.0015 | 0.0007 | 0.0014 | 0.0003 | 0.0014 | 0.0002 | 0.0109 |
| $ω\_{8}^{j,ATI}$$\left(\frac{μL}{cells\*day}\right)$ | 0.0006 | 0.004 | 0.0009 | 0.73 | 0.27 | 0.01 | 0.0336 | 0.02 | 0.03 | 0.0006 | 0.02 | 0.21 | 0.009 | 0.34 |
| $d\_{h}^{j}$**(1/day)** | 0.005 | 0.004 | 0.004 | 0.009 | 0.009 | 0.009 | 0.008 | 0.005 | 0.004 | 0.008 | 0.003 | 0.003 | 0.005 | 0.008 |
| $$d\_{h}^{j,ATI} $$$$(1/day)$$ | 0.005 | 0.008 | 0.023 | 0.339 | 1.162 | 0.827 | 0.020 | 0.213 | 0.240 | 0.021 | 0.022 | 0.047 | 0.377 | 0.041 |
| $I\_{50}^{j}$$$\left(\frac{cells}{μL}\right)$$ | 2.7 | 1.8 | 2.8 | 0.2 | 0.3 | 0.2 | 0.3 | 1.2 | 3.4 | 0.6 | 9.1 | 3.9 | 3.5 | 0.3 |
| $I\_{50}^{j,ATI}$$$\left(\frac{cells}{μL}\right)$$ | 9.2 | 3.4 | 10.2 | 1.3 | 1.5 | 16.4 | 7.5 | 6.7 | 68.4 | 3.4 | 18.5 | 32.4 | 61.1 | 2.0 |