**S3.** **Linear mixed-effects regression model**

Nested random effects

$$Y\_{ij}\~β\_{0}+β\_{1}t\_{ij}+β\_{2}\left(t\_{ij}>c\right)\left(t\_{ij}-c\right)+β\_{3}X\_{i}+β\_{4}D\_{1i}+β\_{5}D\_{2i}+β\_{6}t\_{ij}S\_{i}+β\_{7}\left(t\_{ij}>c\right)\left(t\_{ij}-c\right)S\_{i}+β\_{8}t\_{ij}D\_{1i}+β\_{9}\left(t\_{ij}>c\right)\left(t\_{ij}-c\right)D\_{1i}+β\_{10}t\_{ij}D\_{2i}+β\_{11}\left(t\_{ij}>c\right)\left(t\_{ij}-c\right)D\_{2i}+β\_{12}t\_{ij}D\_{1i}S\_{i}+β\_{13}\left(t\_{ij}>c\right)\left(t\_{ij}-c\right)D\_{1i}S\_{i}+β\_{14}t\_{ij}D\_{2i}S\_{i}+β\_{15}\left(t\_{ij}>c\right)\left(t\_{ij}-c\right)D\_{2i}S\_{i}+γ\_{0i∨k}+γ\_{1i∨k}t\_{ij}+γ\_{2i∨k}\left(t\_{ij}>c\right)\left(t\_{ij}-c\right)+ε\_{ij}$$

with i= 1,…, 225 mice, j= 1, …, ni measured at times tij and k=1, …, 25 PDX models