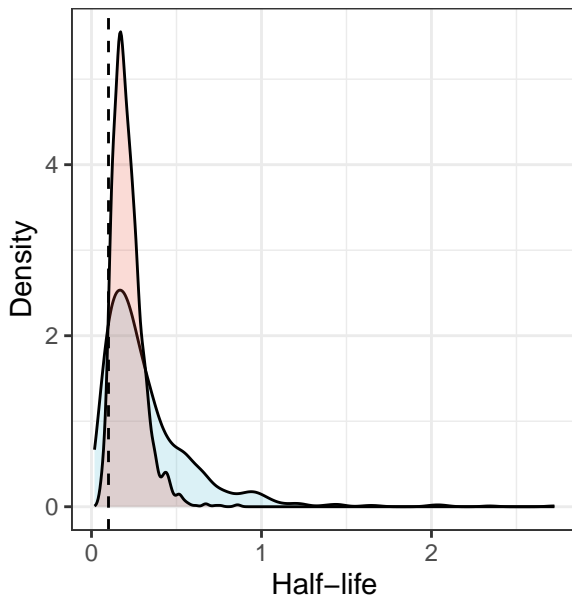


**A)**



**B)**

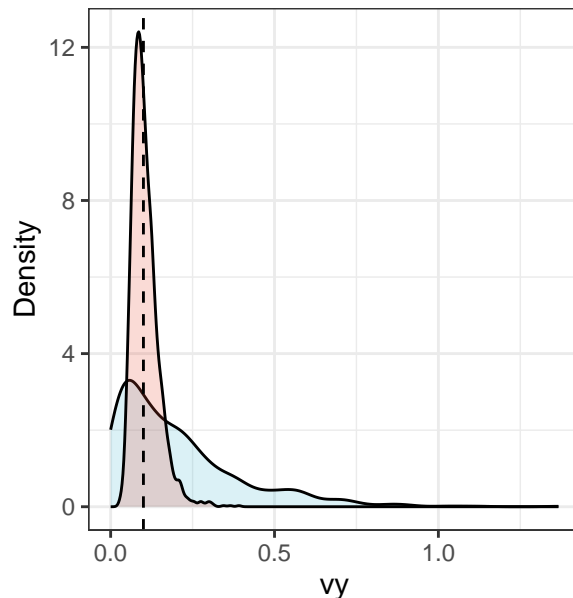


Fig. S16: Prior vs. posterior for A) Half-life, B)  $v_y$ . For this simulation parameter values were set to:  $hl=0.1$ ,  $v_y=0.1$ ,  $\alpha=2$ ,  $\beta=(0.5,0.35,0.1)$ ; Priors:  $hl \sim \text{lognormal}(\log(0.25), 0.75)$ ;  $v_y \sim \text{exponential}(5)$ ;  $\alpha \sim \text{normal}(0,1)$ ;  $\beta \sim \text{normal}(0,1)$ . Dotted lines in A) and B) are true values of the parameter. Brownian motion matrix assumes no correlation between predictors.