

Table S1: Estimates and relative standard errors for different error models for the PK/PD regression case study

Parameter	Additive error		Proportional error		Combined error		Exponential error	
	Estimate	RSE (%)	Estimate	RSE (%)	Estimate	RSE (%)	Estimate	RSE (%)
E_0	94.55	1.7	90.13	3.6	94.10	2.5	92.12	4.0
EC_{50}	52.30	5.6	51.93	8.7	52.62	6.4	54.07	9.2
E_{max}	22.94	5.6	24.61	3.7	23.55	4.4	22.33	4.0
γ	1.51	9.0	1.62	10.8	1.59	9.2	1.64	10.4
-2LL	3919.59		3911.30		3864.21		3888.52	
BIC	3950.84		3942.54		3901.70		3919.76	

Estimates for Emax model ($f(c, \theta) = E_0 + (E_{max} - E_0) \cdot c^\gamma / (EC_{50}^\gamma + c^\gamma)$) are displayed with the RSE in % in brackets. The last two rows show the -2*log-likelihood (-2LL) and the Bayesian information criterion (BIC), respectively.

RSE: Relative standard error