Candidate VEGF model
$(M_{\mathrm{VEGF},1-4})$

Requires parameter estimation

Parameter knowledge a priori
(prior distribution $P(\theta)$)

Model inference
$P(\theta|Y) \propto P(Y|\theta)P(\theta)$

Adequation between experiments and model predictions
(likelihood distribution $P(Y|\theta)$)

Provides uncertain data

In vitro experiment
- Cell type (F7, CTX, dADSC)
- Specie (oxygen, glucose, VEGF, cell density)

Parameter estimation a posteriori
-each VEGF model ($M_{\mathrm{VEGF},1-4}$)
-each cell type (F7, CTX, dADSC)

In silico experiment

Model selection (WAIC)
-each VEGF model ($M_{\mathrm{VEGF},1-4}$)
-each cell type (F7, CTX, dADSC)

Experiment utility
-each VEGF model ($M_{\mathrm{VEGF},1-4}$)
-each cell type (F7, CTX, dADSC)

Improves experimental design