

# Realization of common platform technology, facilities, and equipment that creates innovative knowledge and products

## Development of cell modeling platform for drug development

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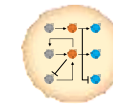
**R&D Team :** RIKEN, Kyoto University



### Summary :

We aim to develop a mathematical modeling and simulation platform that can be easily used by experimental biologists in their laboratory.

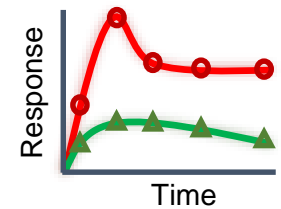
We show a proof of concept by examining the effect of drugs with different mode of actions for multiple cell lines and test the efficacy of the prediction powers of this platform for drug evaluation.



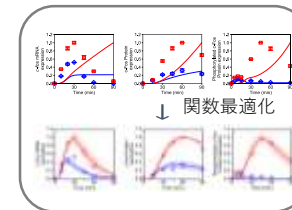
**BioMASS**

Modeling and Analysis of  
Signaling Systems

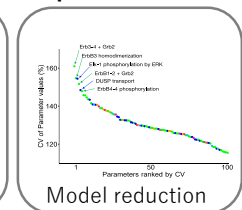
<https://github.com/okadalabipr>



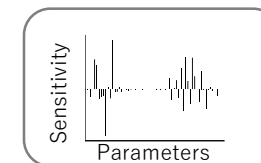
**Parameter  
optimization**



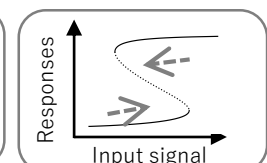
**Cell-specific  
parameters**



**Sensitivity analysis**



**Bifurcation analysis**



<https://github.com/okadalabipr/biomass>