

## COMBINE & ERASysAPP Tutorial Modelling and Simulation of Biological Models

<http://co.mbine.org/events/tutorial2014>

**Date:** Sunday, September 14th, 2014 (9:00 - 18:00)

**Venue:** Melbourne, Australia - Ether Conference Centre, 265 Little Bourke Street

### Focus

Participants will learn setting-up computer models of biological networks and simulating them in different systems biology platforms, as well as using databases and applying modelling standards. Hands-on sessions, lectures and software demonstrations will be included providing attendees with the necessary skills.

### Topics

- Model setup using different software tools and systems biology platforms
- Using experimental data for setting up quantitative models
- Parameter estimation, optimization and model fitting
- Simulation, analysis and visualization of biochemical models
- Database supported modelling: Integrated data management and model databases
- Community standards and formats for systems biology models

**Target audience:** Experimentalists and modellers with basic experience in modelling and simulation

**Standards** (<http://co.mbine.org/>): CellML, SBGN, SBML, SBOL, SED-ML

**Databases:** BioModels, JWS Online, Physiome Repository, SABIO-RK, SEEK

**Tools:** CellDesigner, COPASI, iBioSim, OpenCOR, SBGN-ED, SYCAMORE, Virtual Cell

### Tutors

- Akira Funahashi and Noriko Hiroi: Keio University (Yokohama, Japan)
- Martin Golebiewski: Heidelberg Institute for Theoretical Studies (Germany)
- Mike Hucka: California Institute of Technology (Pasadena, CA, USA)
- Ursula Kummer and Jürgen Pahle: University of Heidelberg (Germany)
- Nicolas Le Novère: Babraham Institute (Cambridge, UK)
- Chris J. Myers: University of Utah (Salt Lake City, UT, USA)
- Ion Moraru: University of Connecticut Health Center (Farmington, CT, USA)
- David Nickerson: Auckland Bioengineering Institute (New Zealand)
- Falk Schreiber: Monash University (Melbourne, Australia)
- Jacky Snoep: Stellenbosch University (South Africa)
- Natalie Stanford: University of Manchester (UK)

### Tutorial coordinators

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