# CellDesigner™3.0

A Process Diagram Editor for Gene-regulatory and Biochemical Networks



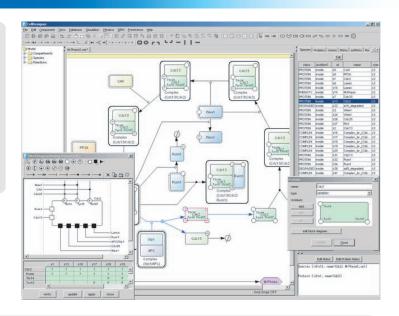
The Systems Biology Institute, Tokyo, Japan http://www.systems-biology.org

### What is CellDesigner?

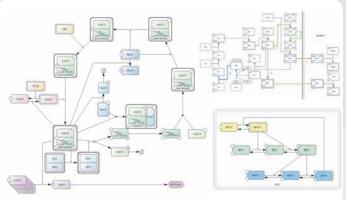
CellDesigner<sup>™</sup> is a structured diagram editor for drawing gene-regulatory and biochemical networks. Networks are drawn based on the process diagram, with the graphical notation system proposed by Kitano, and are stored using the Systems Biology Markup Language (SBML), a standard for representing models of biochemical and gene-regulatory networks. Networks are also able to link with simulation and other analysis packages through Systems Biology Workbench (SBW).

### **Major Features:**

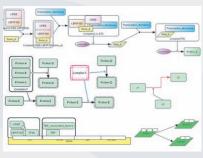
- Representation of biochemical semantics
- Detailed description of state transition of protein
- SBML compliant (SBML Level-1, Level-2 document)
- Integration with SBW-enabled simulation modules
- Extreme portability as a Java application



### Create a New Model



# with comprehensive Graphica Notation:



A new notation that enhanced previous process diagram into gene and RNA. as well as protein complex structure. Ver 3.0 implements most part of notations described in

Kitano, H. et al.

"Using process diagram for Graphical Representation of Biochemical Networks, Nature Biotechnology, August 2005

# with References to Existing Databases



### **Browse / Export SBML Models**

CellDesigner can read/write SBML data: The models you created with CellDesigner can be used with more than 85 SBML compliant software.

### **SBML Model Repositories:**

- BioModels.net:

- SBML models repository:

- SBML-converted KEGG pathways:

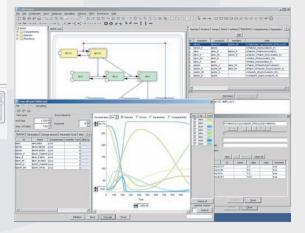
- PANTHER<sup>TM</sup> system:

http://biomodels.net/ http://sbml.org/models/

http://www.systems-biology.org/ https://panther.appliedbaiosystems.com

# Simulate and View the Dynamics through an intuitive graphical interface

CellDesigner 3.0 supports direct simulation and parameter scan by an integration with SBML ODE Solver.



#### **Supported Environments:**

CellDesigner requires Java2 Runtime Environment (JRE1.4.2 or later) on

- Windows (98SE or later)
- MacOSX (10.3 or later)

- Linux with X Window System

CellDesigner is freely available from http://celldesigner.org/

contact: info@celldesigner.org

