

C1 Cell Illustrator

A Biological Drawing and Biopathway Modeling Tool

Cell Illustrator[™] is a software tool that enables biologists to draw, model, elucidate and simulate complex biological processes and systems. It has outstanding drawing capabilities, moreover it allows researchers to model metabolic pathways, signal transduction cascades, gene regulatory pathways as well as dynamic interactions of various biological entities such as genomic DNA, mRNA and proteins. *Cell Illustrator*[™] models are used to visualize biopathways, interpret experimental data and test hypotheses. In addition, it provides researchers with model diagrams of publication quality and simulation result charts. *Cell Illustrator*[™] has been successfully utilized to model biological processes like Circadian Rhythms of *Drosophila melanogaster*, Glycolytic pathway and Fas ligand induced Apoptosis.



With *Cell Illustrator*[™] you can draw your models:

- > Using easy and intuitive User Interface.
- > Biological Elements Library is available.
- User has access to previously created sub-models or those imported from public and proprietary libraries.
- > Sample verified biochemical models created using *Cell Illustrator*[™] are available.
- > Models can be exported to common graphical format files (PS, PNG, JPEG).







Some of *Cell Illustrator*[™] key modeling features:

- Models combining discrete and continuous processes can be created.
- All model's variables and parameters of processes and connectors are tabulated and are easy to modify.
- Variables' actual values can be displayed during simulation.
- Discrete processes have unique animated simulation option to observe quantities flow through the system.
- Five simulation modes: three different continuous simulation modes, step simulation and step simulation with animation.
- Simulation results can be presented on realtime graphs or exported to common format files.
- ➤ A simulation run can be saved in a log file and replayed in *Cell IllustratorTM* Player.
- The Simulation History dialog provides access to previous versions of a model and simulation results.
- ➢ Final simulation results can be presented using Cell Animator[™] with graphs and animations.

Hardware and software requirements

- Suggested hardware configuration: Intel Pentium 4 2.0 GHz or higher; 512 MB RAM or more; 100MB HDD space or more.
- Operating systems: Windows 98/ME/2000/XP, Mac OS X, Linux, UNIX Java compatible platforms.
- > Java SDK 1.4.1 or higher.

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