Chapter 4
Starting Cell Illustrator

In this chapter, we will use Cell Illustrator 3.0 (CI3.0) to understand the procedures for creating and simulating pathway models. No expert knowledge in differential equations or programming skill are required; the basic idea is to model and simulate by drawing a pathway.

4.1 Installing Cell Illustrator

4.1.1 Operating Systems and Hardware Requirements

Cell Illustrator operates under almost any OS (Operating System) that can run Java programs. Specifically, Cell Illustrator operates under Windows, Mac, and Linux. Install Java Runtime Environment (JRE) version 1.5.0 or later to run Cell Illustrator. There is no need to reinstall JRE if a newer version is already installed. Otherwise, either download JRE from http://java.sun.com, or use the installation packages for JRE 1.6.0 provided on the CD-ROM.

4.1.1.1 Supported Operating Systems

The following packages are prepared for Cell Illustrator depending on OS type and “with or without” JRE (Java VM):

- Windows NT/2000/XP/Vista (without Java VM)
- Windows NT/2000/XP/Vista (with Java VM)
- Linux (without Java VM)
- Linux (with Java VM)
- Mac OS X 10.4.8 (Tiger) or later (no version with Java VM)
4.1.2 Hardware Requirements

The following are the minimum requirements for running Cell Illustrator:

- CPU: 1 GHz
- RAM: 512 MB
- Disk Space: 100 MB

Under typical work load, the following are recommended specifications:

- CPU: over 2 GHz
- RAM: over 1 GB

4.1.2 Cell Illustrator Lineup

There are four versions of Cell Illustrator as of July 2007: Cell Illustrator Draw, Cell Illustrator Standard/Classroom, and Cell Illustrator Professional. CI Draw is free and retains full modeling capability, but lacks simulation capability. CI Standard/Classroom can simulate moderately sized pathways. (CI Classroom is the academic version of CI Standard.) CI Professional has no limitations, can create pathways of over 1000 elements, and can be used for the analysis of large-scale gene networks. The 30-day trial editions are available for all versions.

On the CD-ROM is a simplified version of Cell Illustrator 3.0, which has functionality between CI Draw and CI Standard. This version is more than capable of all of the exercises in Chapters 4 and 5. If it becomes necessary to upgrade for larger models, one license change is all that is needed. See http://www.cellillustrator.com/ for further information about licensing. Now let us approach Systems Biology with Cell Illustrator 3.0.

4.1.3 Installing and Running Cell Illustrator

This section covers the installation of Cell Illustrator. Though this book uses the installation to Windows Vista as an example, other Windows platforms should be similar.

4.1.3.1 Installation on Windows

4.1.3.1.1 Without JRE or unknown

1) Install by clicking CI3.0_wj_setup.exe in the CD-ROM.
2) After installation, CI will be registered in the start menu, click to start.

4.1.3.1.2 JRE is already installed.