

Recombinant DNA Techniques

We will be looking at our microarray data so that we can see how we did in the procedure. We will then use data from another lab for our analyses.

Installation of TIGR Spotfinder

1. Insert the Genomics CD into a drive.
2. If the computer does not open a window to show the drive contents (or ask what it should do):
 - a. Select “My computer”. It may be on the “Start” menu at the bottom of the screen.
 - b. Select the CD drive.
3. Copy the “Spotfinder311win” directory to the c:\program files directory.
4. Create a Spotfinder icon on the desktop by right clicking on the desktop. Then select “New”, then “Shortcut”. Click the Browse button and move to the c:\program files\Spotfinder311win directory. Then select Spotfinder3.1.1.exe. Click on Next, modify the name to Spotfinder 3.1.1 and click Finish.

Using TIGR Spotfinder to examine our data

Load the data

1. Double click on the “Spotfinder3.1.1” icon that you created. The program should start.
2. Load the microarray data into the program. Select “Image”, then “Open images”. Select the CD drive, then “Recombinant arrays”. You select two files by selecting one, and then press the “Ctrl” key and the other file. Note that each set of files has a similar name (DR 352_532 and DR 352_635). All the files we generated start with DR, and then the slide number is listed, and then the last three numbers are the wavelength used to read the microarray.

Adjust the image

3. At the top left of the program are two vertical sliders with yellow and black circles/half circles. Move the sliders up and down to see the effects. These change the brightness and contrast of the images.
4. Check both sets of slides.

Installation of MagicSpot

Note: Installation of MagicSpot isn’t necessary, as it runs from the CD. However, if you put it on your computer, you won’t need to insert the CD every time you use the program.

1. Insert the Genomics CD into a drive.
2. If the computer does not open a window to show the drive contents (or ask what it should do):
 - a. Select “My computer”. It may be on the “Start” menu at the bottom of the screen.
 - b. Select the CD drive.
3. Copy the MagicTool directory.
4. Select the directory where you want the program to reside, for example “c:\program files”.
5. Paste the directory.
6. Create a MagicSpot icon like you did above for Spotfinder.
7. Create another icon for the User’s guide (Magic_Users_Guide.pdf).