**GenePix Tutorial**

1. Open the **GenePix Pro 4.1** software. Choose “Analysis Only” and then “4100.”
2. Press the **Scan** button (one arrow point) to see a demo scan.
3. Click the **Open/Save** button on the right-hand side of the window.
4. Select **Open image**, open the Yeast1 image file.
5. Click on the **Histogram** tab: ***record the overall 635:532 ratio in your lab notebook.***
6. Click the **Open/Save** button on the right-hand side of the window.
7. Select **Load Array List**.
8. Go to the *Shared Documents* folder; from the *Gal Files* folder select **Yeast1** and open the file.
9. Move ALL the blocks to the general area of the array.
10. "Unselect" the blocks.
11. **Zoom in** and MOVE ONE BLOCK AT A TIME.
Using the mouse, drag and place each block over a block of spots.

You will have to position EACH block (32 total); for FINE TUNING blocks, see p. 53.

***It's OK if some of the BOXES overlap when you're positioning the blocks; what's more important is for the CIRCLES inside the boxes to line up with the SPOTS on the array.***
12. Select **Feature Mode** from the **Tools** group on the left-hand side of the Image tab; ***Align Features in ALL BLOCKS.***
*\*go to "option" ---> "alignment" ---> change to 100 minimum diameter (default = 33%)*
13. To flag a feature, select **Feature Mode** from the **Tools** group on the left-hand side of the image.
14. Click on the feature you want to flag.
15. Hit "A" to flag the feature as "Bad."

NOTE: You can also select a region to flag as bad by dragging a "square" around the features.

**You may also need to increase (‘Ctrl’ left cursor arrow)/decrease (‘Ctrl’ right cursor arrow) the size of individual spots.**
16. Click on the **Analyze** button ("BCR").

***A JPEG file of the image is saved AUTOMATICALLY.***

To SHOW ONLY the UNFLAGGED ROWS, click the **Display** button in the **Table** group on the left-hand side of the Results tab and check the unflagged box.
17. Switch to the **Scatter Plot** tab to generate a graph of the analysis measurements for all spots on the array.
18. On the left-hand of the Scatter Plot tab, choose quantities to plot along the X and Y axes:

**Display your data as F1 Median vs. F2 Median: the diagonal through the origin separates features with a higher activity than the control from features with a lower activity than the control.**
19. Position the mouse over any spot on the scatter plot; the associated feature will be displayed in the *Feature Viewer.*

**The Feature Viewer reports the intensity of the pixels within the spot, its associated background intensity level, the precise location of the spot in the analysis array, and substance IDs or names that have been defined for each feature.**

***The Scatter Plot and the Results spreadsheet are fully integrated: after choosing a spot on the scatter plot, select "Group Rows" in the Results spreadsheet; the details about the selected feature will appear at the TOP of the list.***