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MICROSCOPY NEW ZEALAND INC. CONFERENCE WORKSHOP 2017

Using FigureJ to create figures

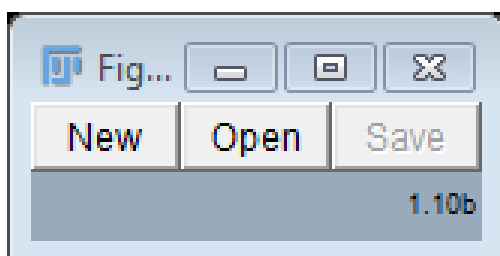
31 January 2017

Author: Jerome Mutterer

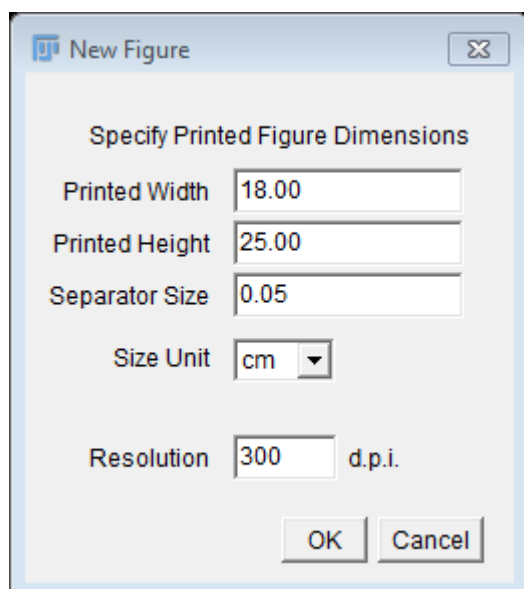
Plugin documentation: <http://imagejdocu.tudor.lu/doku.php?id=plugin:utilities:figurej:start>

The documentation includes a video tutorial that shows you how to use the plugin.

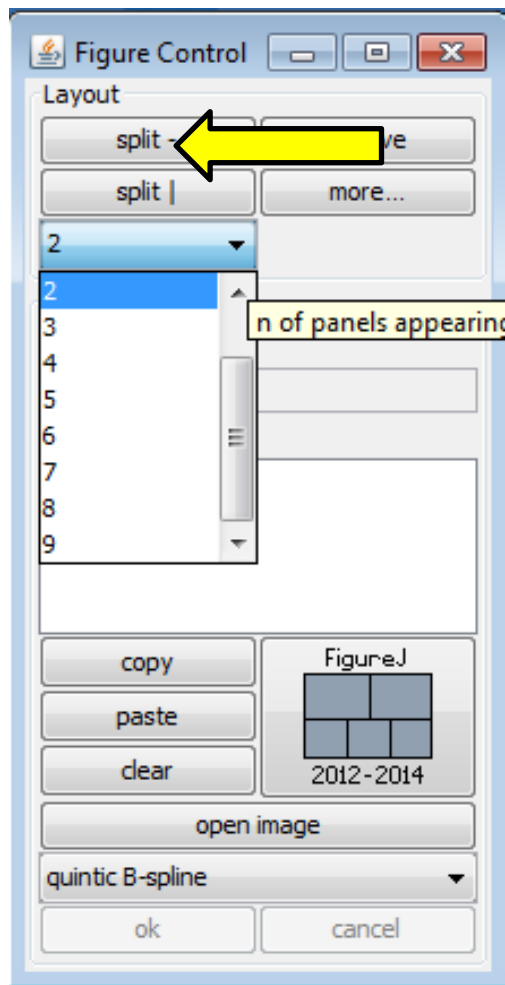
1. Go to **Plugins – FigureJ**. The panel below appears. Click **New** to create a new canvas;



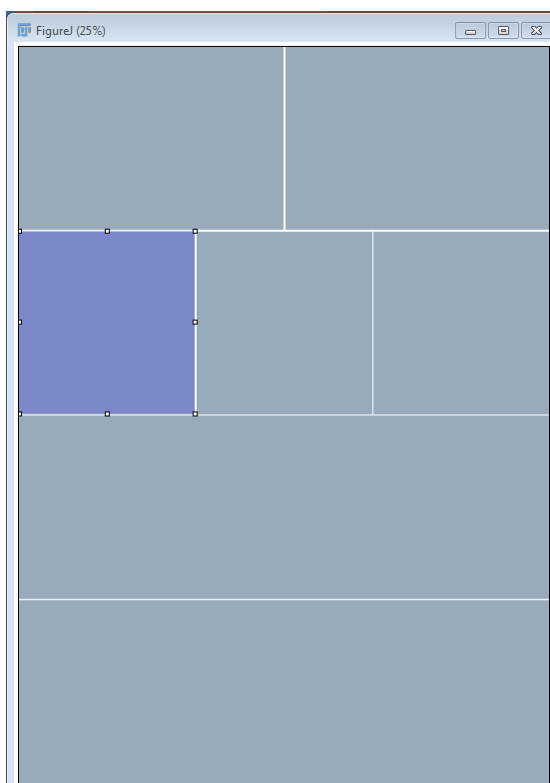
2. Specify the dimensions for the figure based on the printable area and click **OK**.



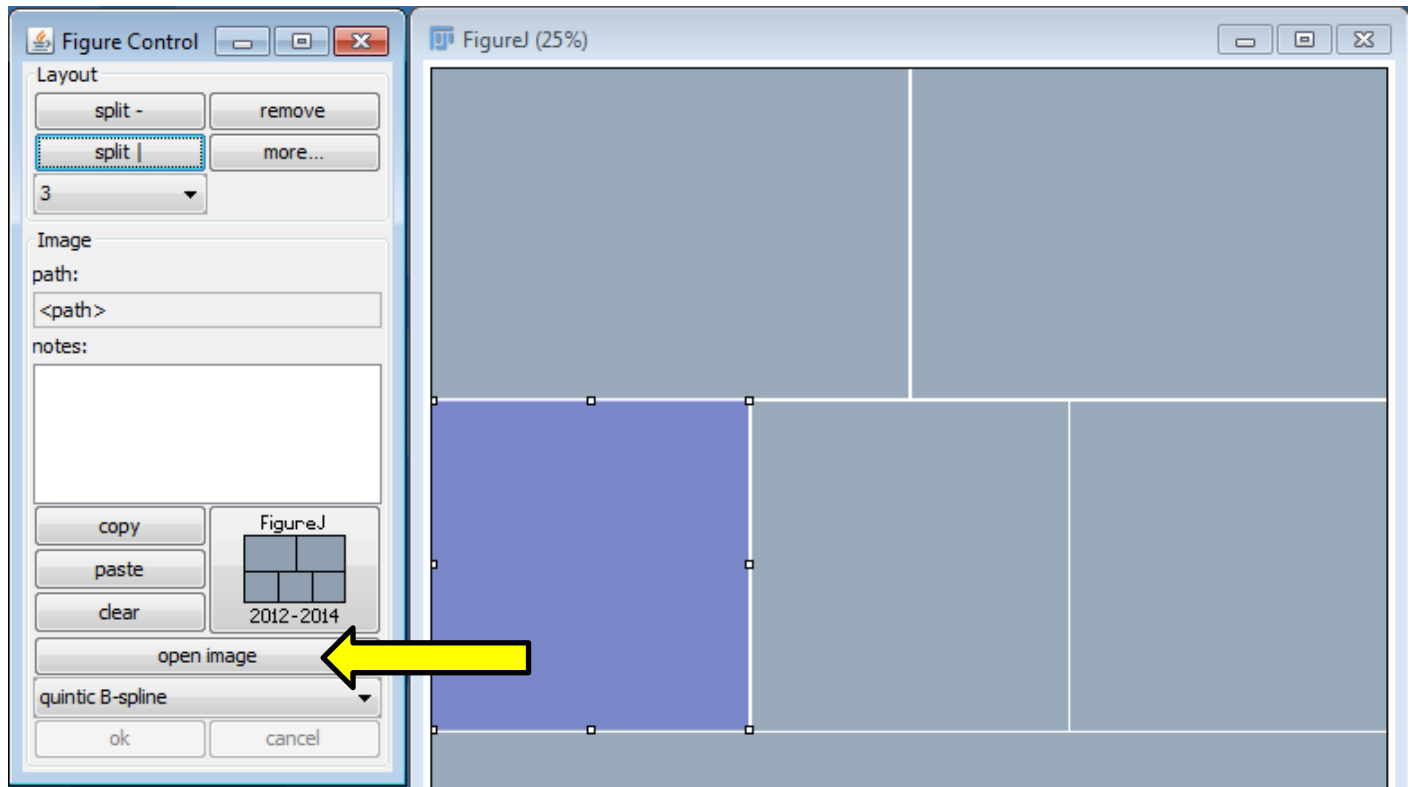
4. Decide how many rows you want using the drop-down box and click the **split-** (horizontal) button;



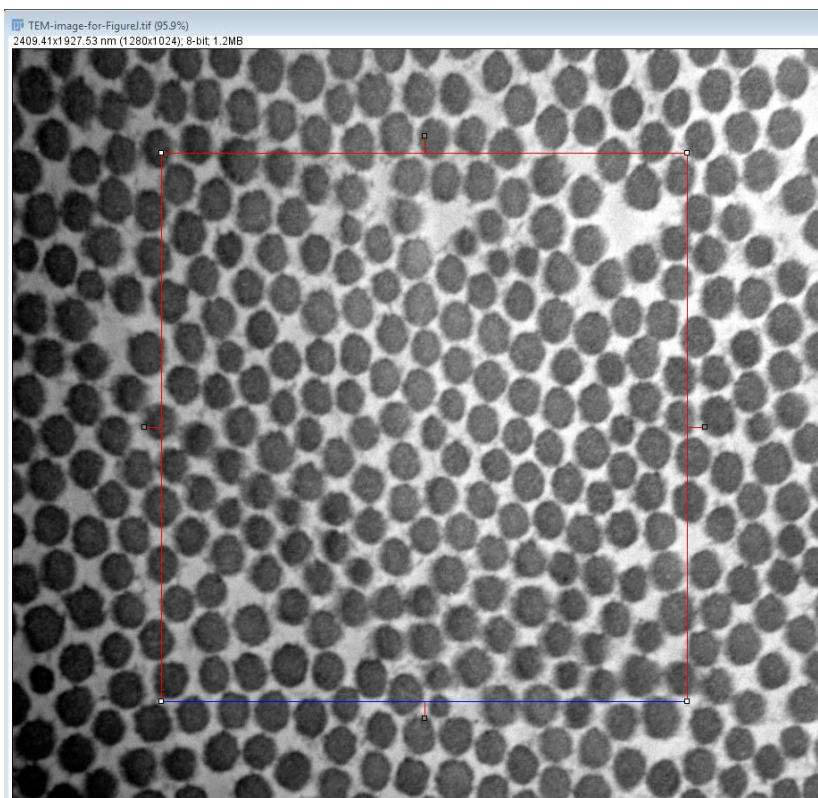
5. Split the rows into separate panels/columns by selecting them, choosing a number and clicking **split |**. You can still adjust the gutter positions to change the size of the panels if necessary.



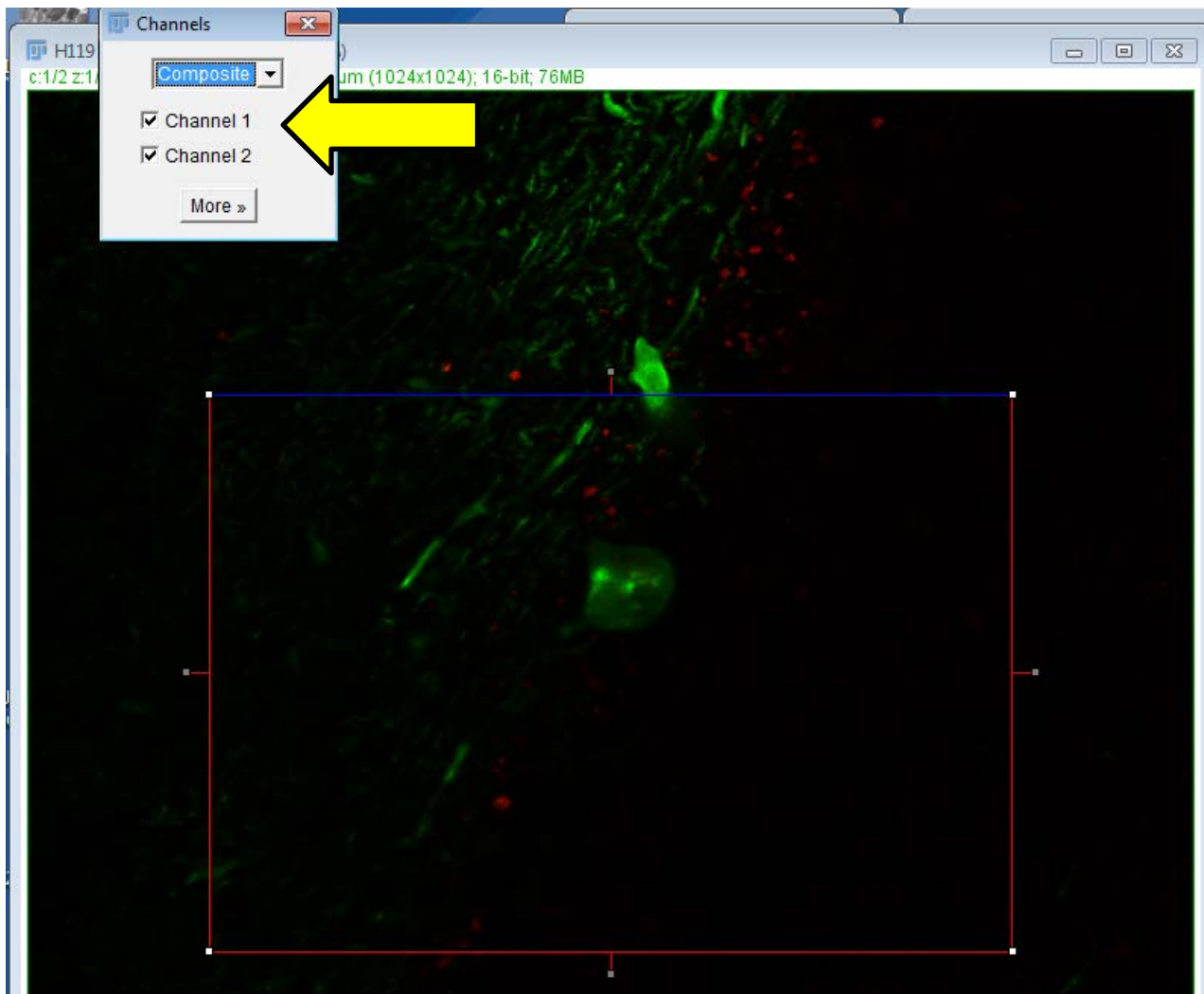
6. To insert images, select the panel where you want the image to go and click **open image**;



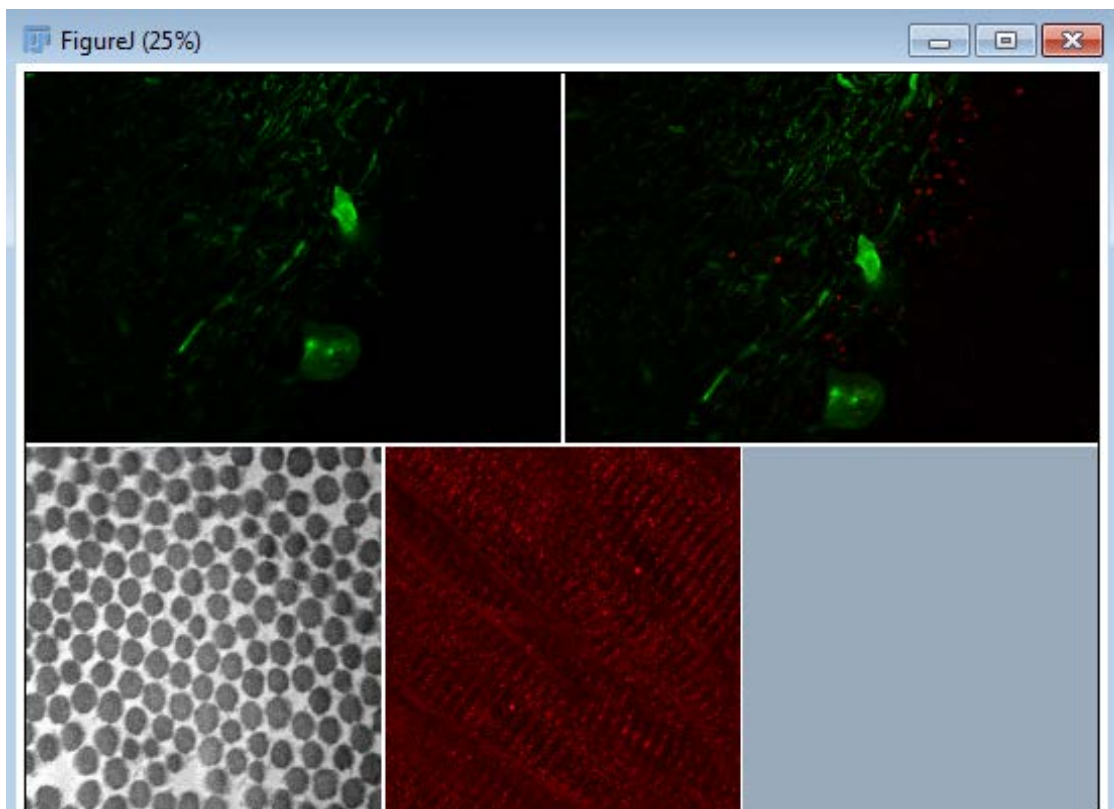
7. The image will appear with a selection drawn on it that is the same proportion as the panel. You can move the selection, rotate it (using the handles on the sides) and make it larger/smaller (by dragging from the corners – proportions will be constrained);



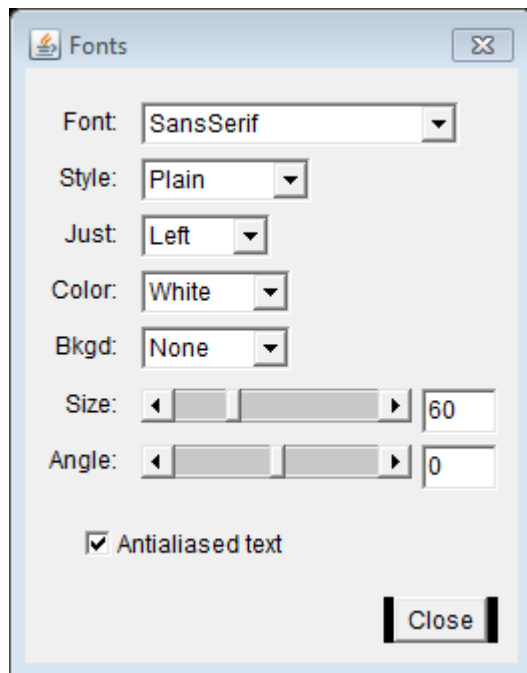
8. Click **OK** to insert the image into the panel.
9. If you select an image which has multiple channels, it will come up with the **Channels** tool;



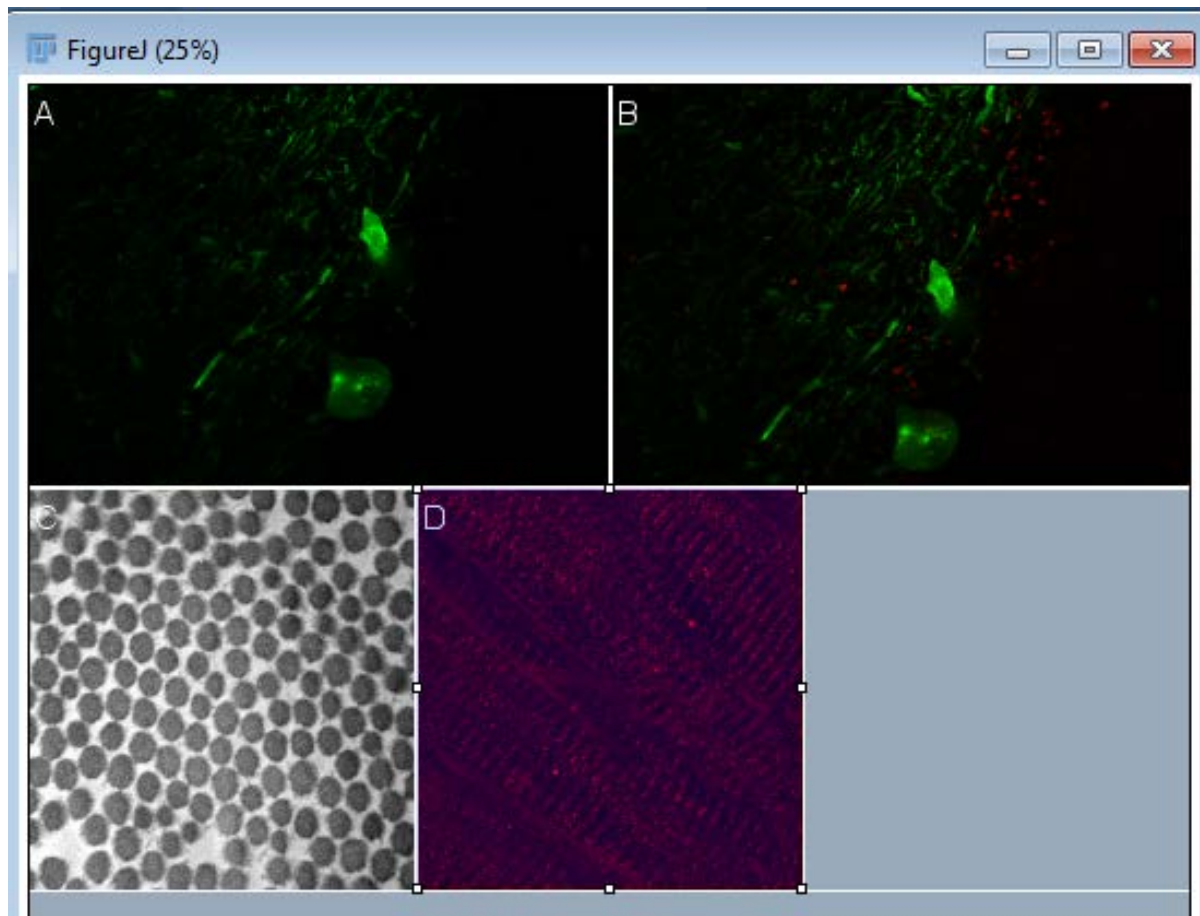
10. You can choose which **Channel** you want to insert or if you want the composite image (overlay);



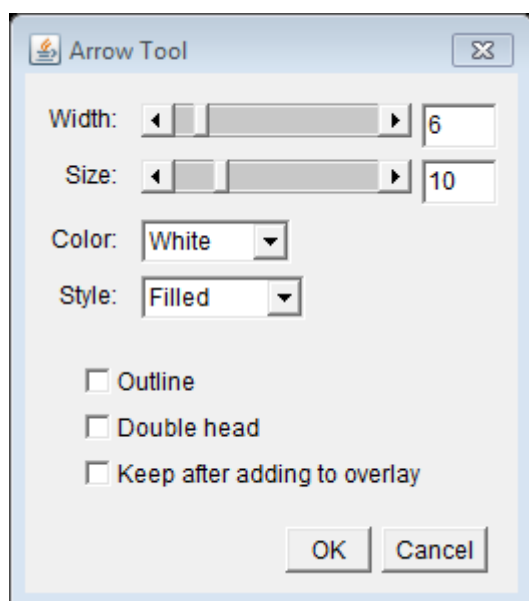
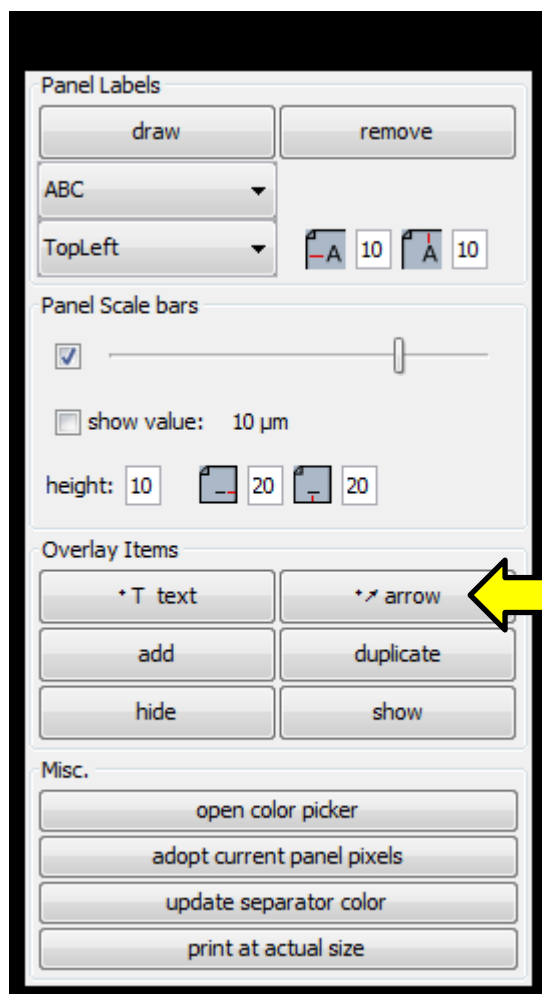
11. To put letters onto the figure, select the panel and click the **more...** button;
12. Click the draw button to bring up the **Fonts** selection;



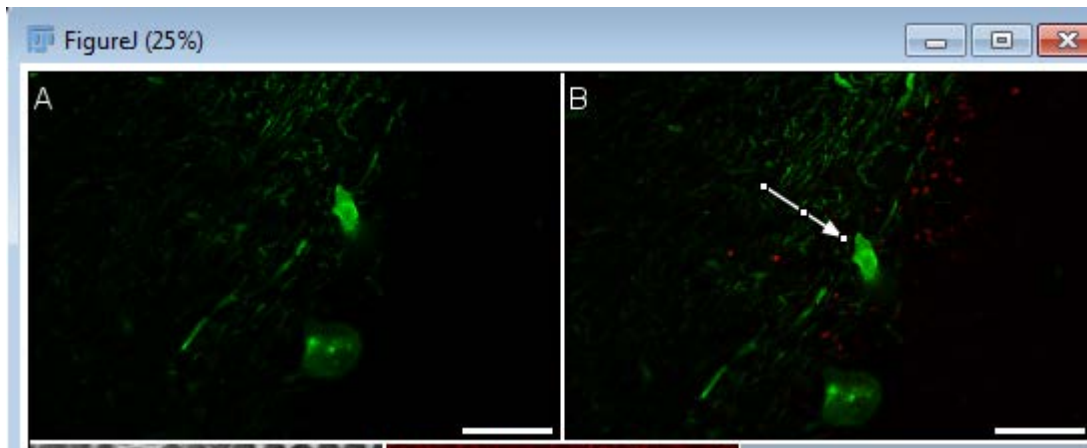
13. When you have selected the options you want, click **Close** to apply the text.
14. Select each panel in the order in which you want the letters to appear on the figure, otherwise they will be incorrect. Select the option of **user-defined** text if you find that easier.



15. For **Scale bars**, follow the same procedure, select the panel, choose the value for the scale bar by using the slider. You can choose whether to show the value or not. As long as the image has been calibrated (or can be read by Bioformats), then the value will be correct.
16. To add arrows, click on the arrow button to launch the **Arrow Tool**;



18. Make your selections and then click **OK**. Now draw the arrow. The arrowhead is drawn at the end. You can move the arrow to where you want it.



19. Click **add** to add the arrow to the overlay.
20. Interpolation is necessary when resizing/rotating images. There are a range of interpolation options, which are listed in order of quality (smoothness), where **nearest neighbour** has the least interpolation and **quantic B-spline** is the highest quality.
21. When you are satisfied with the image, click **adopt current panel pixels** and **print at actual size** to see the result.
22. Click **Save** to save the figure. You will be prompted for an **Output folder**. A full resolution TIFF file of the figure will be saved as well as a .figurej file and all of the files required. This file can be opened again and edited, e.g. to swap files or for use as a template.

