How to get publication quality (300 dpi) images

**Image capture**:

* Open image in **ImageScope**.
* Compose your picture at the desired magnification. Make sure to include the magnification bar. If your image does not have a magnification bar, open the ‘View” menu and check Scalebar/Axes/Grid.
* Click , and locate the target folder, name the file and select the image type. Your Image has been saved now at 96 dpi. You can check this by going to the folder that contains the saved image and Right Click **‘Properties’** on the file. Click the **‘Detail’** tab and scroll down: you will find the resolution in **dpi** under **‘Horizontal Resolution’ and ‘Vertical Resolution’**.

**Increasing dpi to Journal requirements (usually 300 dpi):**

* Open the image of interest in **Photoshop**.
* Click the **‘Image’** tab.
* Click **‘Image Size’**.
* Check **Image Dimensions**; should be approx. 600 px x 400 px. Now reduce image size by clicking **“Fit to”** and choosing **4x 6” 300 dpi.**
* Do final cropping.
* Add letters, numbers, arrow, magnification bars, etc. Create a new layer for each new letter or symbol.
  + Letters and numbers
    - Click on the **‘Type’** tool in the left panel (This creates a new layer). Select the type direction you desire. (Fig. 1)

 Fig.1

* + - Set the type, size, and color. (Fig. 2)

Fig. 2

* + - Make sure your color selection is the foreground color. (Fig. 3; black is in the foreground)

 Fig.3

* + - Place your cursor on the image and draw a text box. Type in your label.
    - Click on the **‘Move’** tool to position the label where you desire it. (Fig. 4)  Fig 4
  + Arrows
    - Click on the **‘Shape’** tool in the left panel and select ‘**Custom Shapes’**. (Fig. 5)  Fig.5
    - Use the **‘Custom Shapes’** palette to set the color, weight, and pattern of your shape. (Fig. 6)

 Fig. 6

* + - Select the shape you desire. (Fig. 7)

 Fig. 7

* + - Place your cursor on the image and draw the shape.
    - Use the **‘Move’** tool to position the shape where you desire it. (See Fig. 4)
    - You can also create arrows by using the ‘**Line’** tool. (See Fig. 5)
    - Select the color for your arrow.
    - Select the **‘Start’** and ‘**Weight’** of the arrow. (Fig. 8)  Fig. 8
    - Place the cursor on the image and draw your arrow.
    - Use the **‘Move’** tool to position it. (See Fig. 4)
    - The ‘Line’ tool gives a little more flexibility in positioning your arrow.
  + Magnification bar
    - Go back to ImageScope and identify a landmark at the beginning and at the end of the magnification bar. You will use these landmarks when drawing the magnification bar in Photoshop.
    - Select the color for your line and make sure the color is the foreground color (see Fig. 3).
    - Select the **‘Weight’** of the line. (Fig. 9)

 Fig. 8

* + - Place the cursor on the image, hold the **shift key** down and draw your line starting at one of the landmarks you identified in ImageScope and ending at the second one. (Holding the shift key down allows you to draw a straight line.
    - Use the **‘Move’** tool to position it. (See Fig. 4)
* Save layered image as a Photoshop image (PSD) with all the layers. This is your archival picture that you can use if you need to make changes.
* Click on **‘Layer’ 🡪 ‘Flatten Image’**. Save the flattened image and save under a new file name. For publications purposes, save as a **‘TIFF’** image.
* Your Image has been saved now at 300 dpi. You can check this by going to the folder that contains the saved image and right-click **‘Properties’** on the file. Click the **‘Detail’** tab and scroll down: you will find the resolution in **dpi** under **‘Horizontal Resolution’** and **‘Vertical Resolution’.**