ImageJ Quick references

Adding a Shortcut

ImageJ lets you add some keyboard shortcuts – I find it useful to make one for adding a Scalebar and to pull up the B&C menus. Go to **Plugins>Shortcuts>Add shortcut** and pick the action from the menu

Loading

Drag and drop the file, either select 'Spilt channels' on the import menu (Show Info is also useful) or go **Image>Colour>Split Channels**.
Close the windows you don't want – Imagej is bad on memory

Brightness

Image>Adjust>Brightness and contrast or Window/Level Pixels won't be altered unless you select 'Apply'

Scale bar

Analyse>Set Scale just to check it's read in the data
Then **Analyse>Tools>Scale bar** and select your options

Trimming an image

Pick the rectangular select tool from the menu bar. Crop around the target and **Image>Crop (Ctl-Shift-x)**

Duplicating an Image

Image>Duplicate will copy the window you have open. Draw a selection box then use Image>Duplicate and you will copy just the selection

To clear a bad patch on an image

Use the polygon tool to draw around unwanted areas that won't threshold then **Edit>Clear**, check through the image stack.

Measuring

Analyse>Set Measurements and pick what you need.

To get a cleaner threshold use Process>Filters?Median blur (3 or 3x3 depending on Ij version) - gets rid of hotspots & dead pixel and cleans up the BG.

Image>Adjust>Threshold – Select Dark Background. Play with the stack position and threshold   until you're happy. You don't have to use 'Apply' – you can go straight to measure, but apply

Analyse>Analyse Particles
Have a quick check through then save

Scale

If you're loading raw data - **Analyse >Tools >Scalebar** if you want to check the scale
Analyse>Set Scale but it's read automatically from raw files. Tick 'Global' if you want to apply the scale to all open images.

Exporting frames

Use **Image>Adjust>Brightness/contrast** or **Windows/Levels** then **File>Save as**. You cannot make measurements off JPG images so stick to TIF or PNG

To merge images

Image>Colour>Merge channels as long as you don't have 'Ignore source LUT' ticked, it'll copy across your colour scheme. To get it into a jpg, png or other friendly file format that will display properly use Image>Type>RGB colour – **but Save First as tif**

Making a 3d animation

Load the image and make any adjustments.
Image>Stacks>3d projection

Use interpolate – smoother lines and try a couple of opacity settings
If you do a full 360 with 1 degree spacing, find something to read whilst waiting..
If you run into memory problems break it up into smaller runs 0-100,101-200 etc..
Save as AVI

If you want to sweep through the Z plane (medical scanner style), save your Z stack as AVI

I use Shotcut to edit movie clips – happy to help