Basic Image Presentation in ImageJ/Fiji
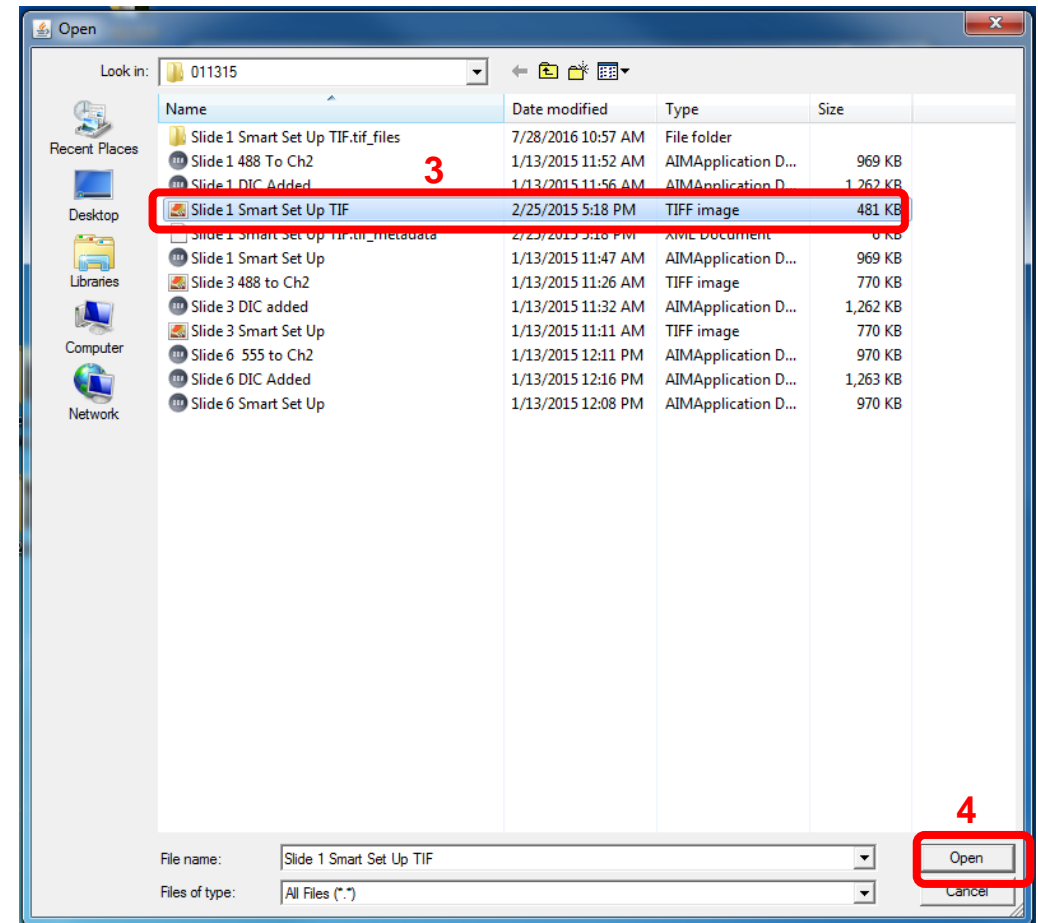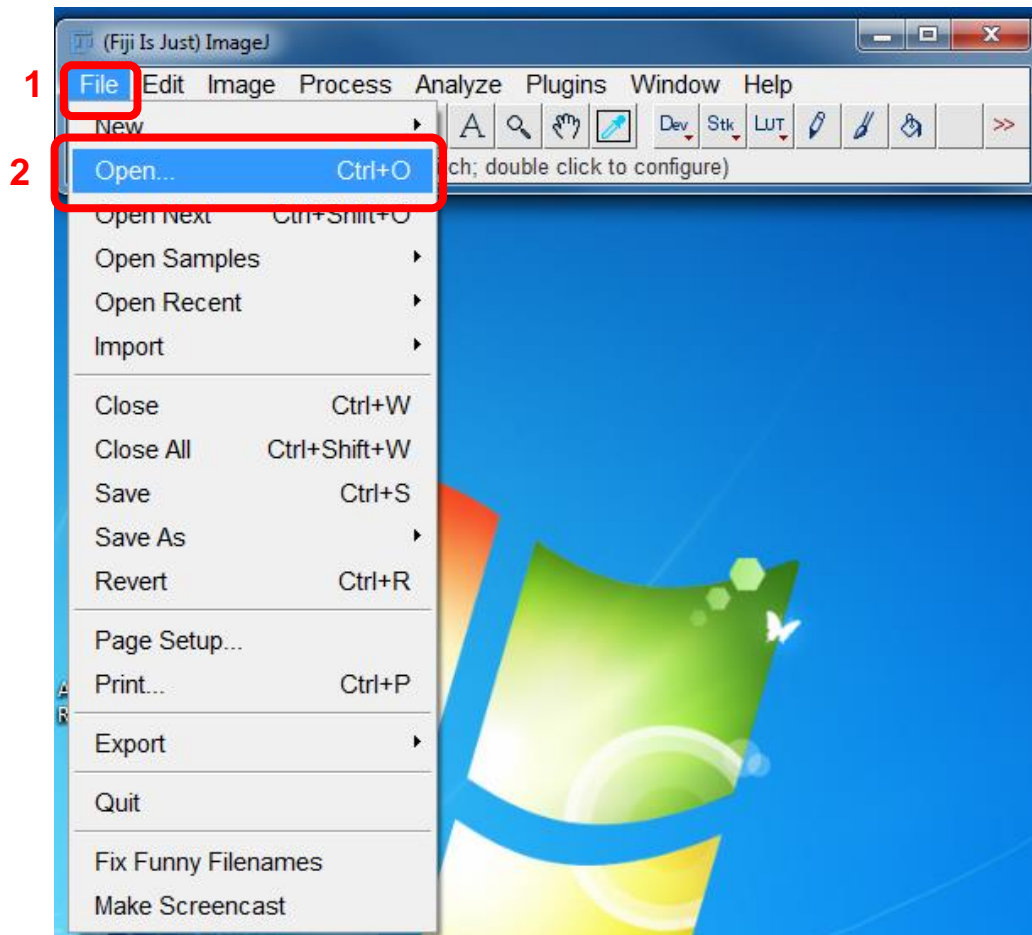
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Splitting and Assigning Colors to .tiff Images

A user had a merged image in .tiff format. They wanted the image to be split and colored. How can this be done?
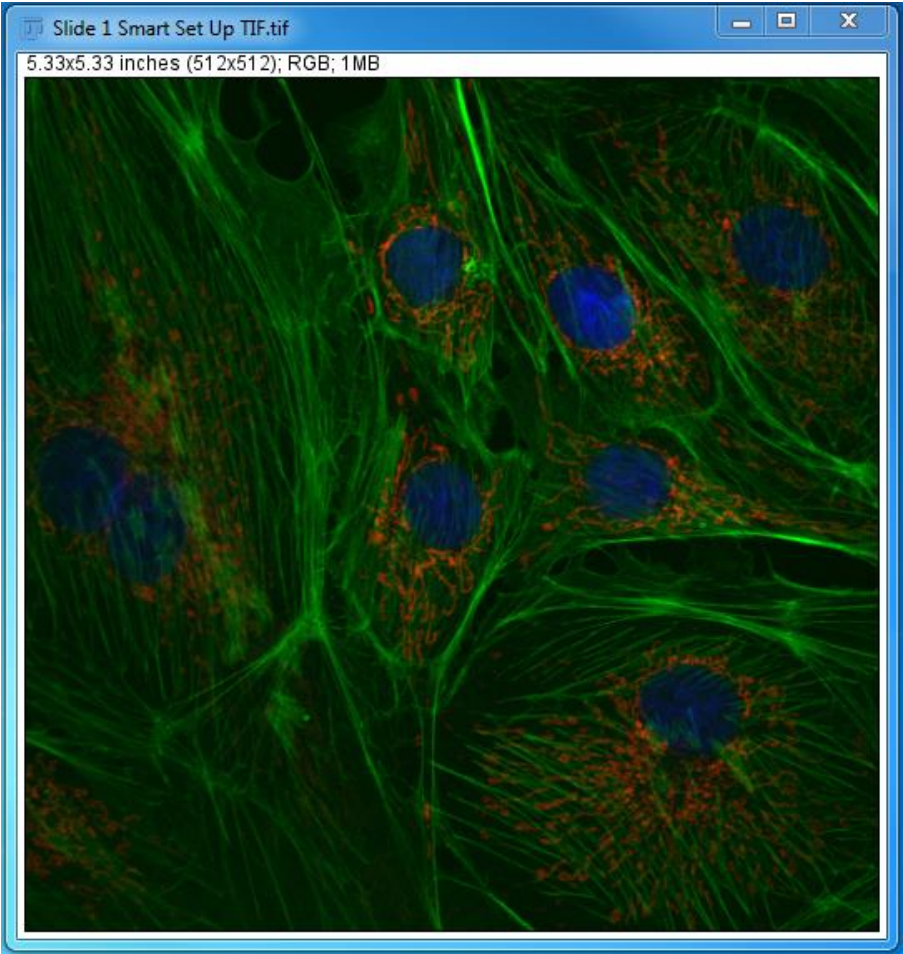
I used Fiji but ImageJ should also work.
1. Click File.
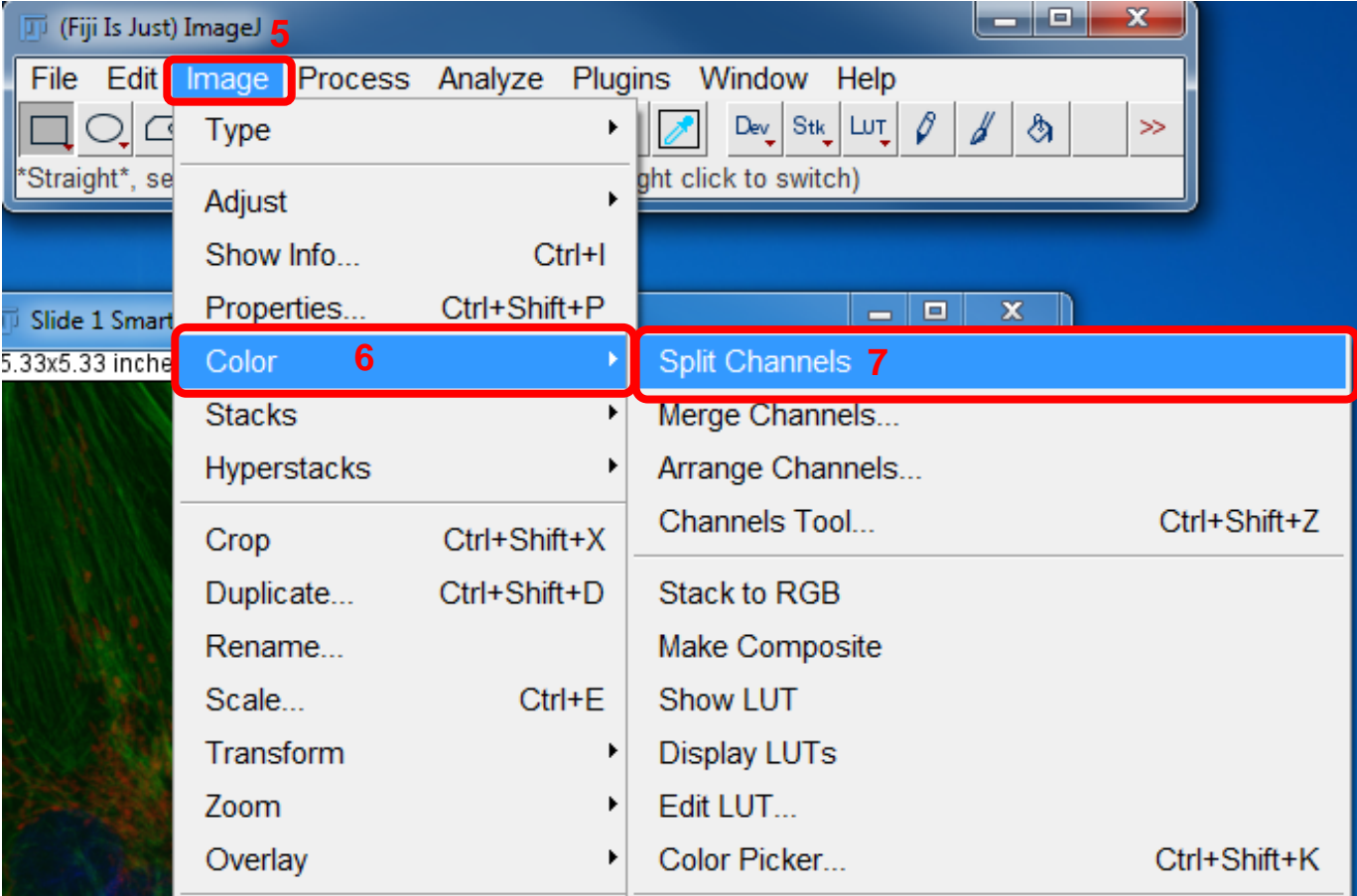2. Click Open.

3. Select image by clicking on it.
4. Click Open.

This is how the .tiff image looks.
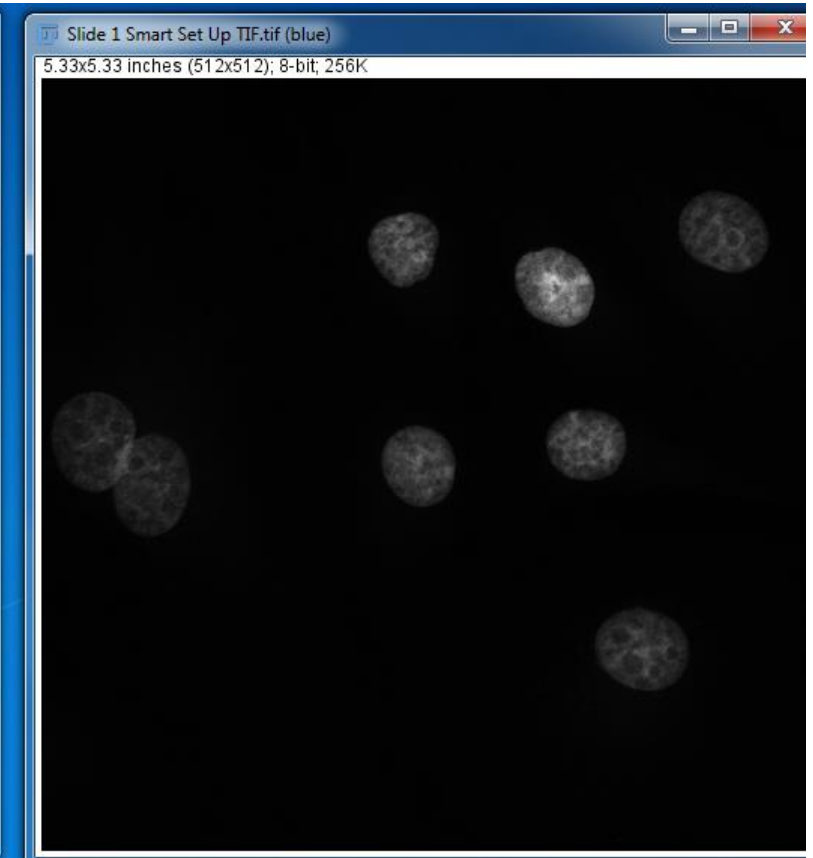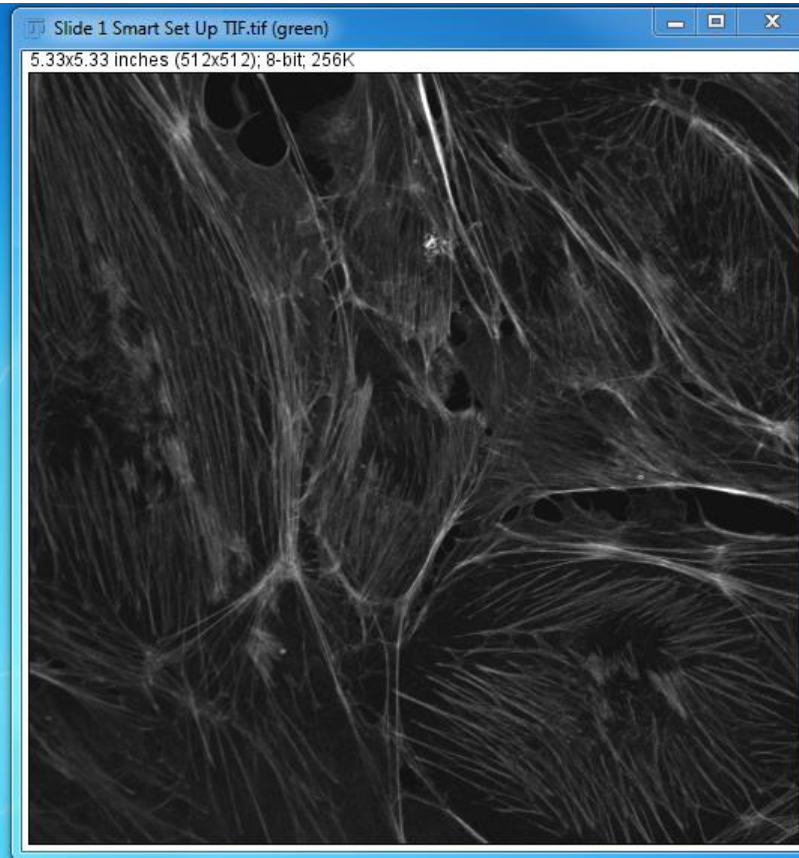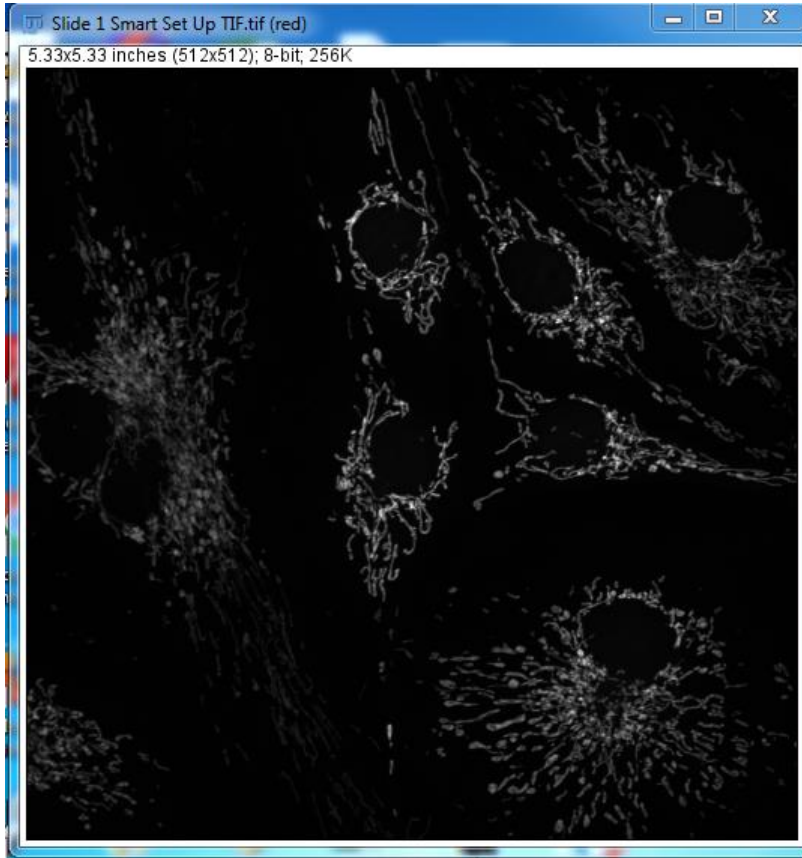

To split the channels:
5. **Click Image.**
6. **Select Color in the drop down menu.**
7. **Select Split Channels.**

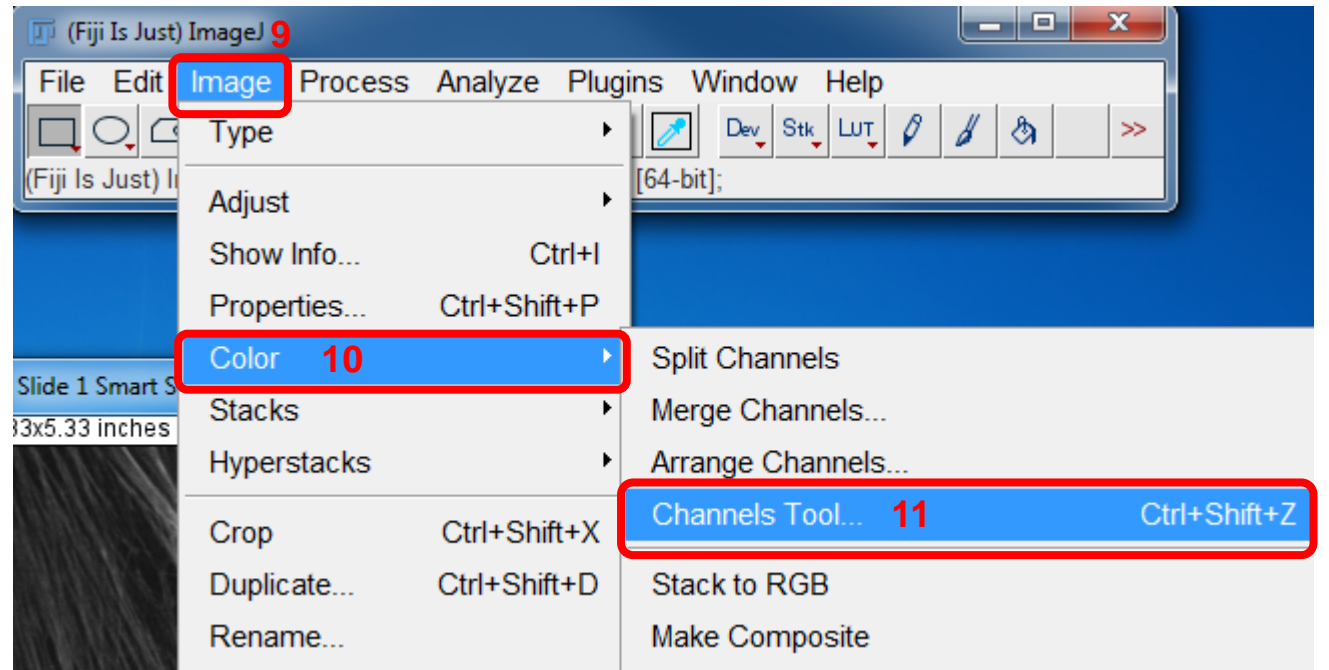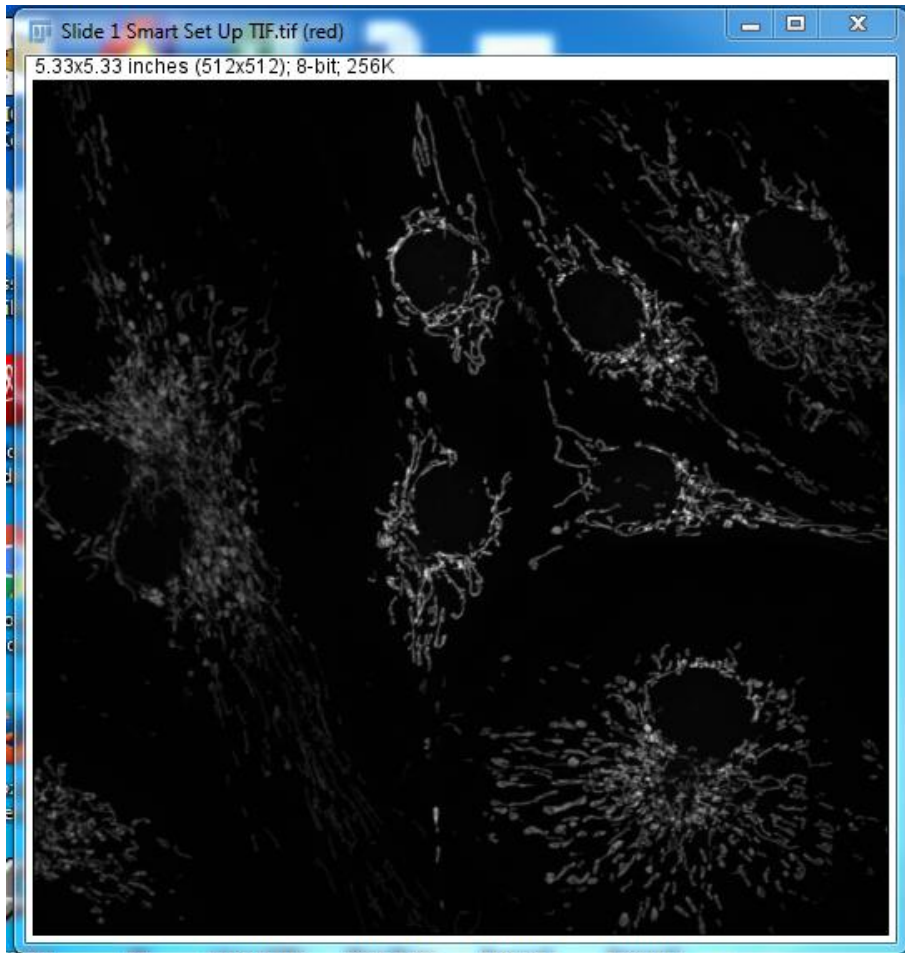**The channels are now split but we have black and white images.**
How to get color?
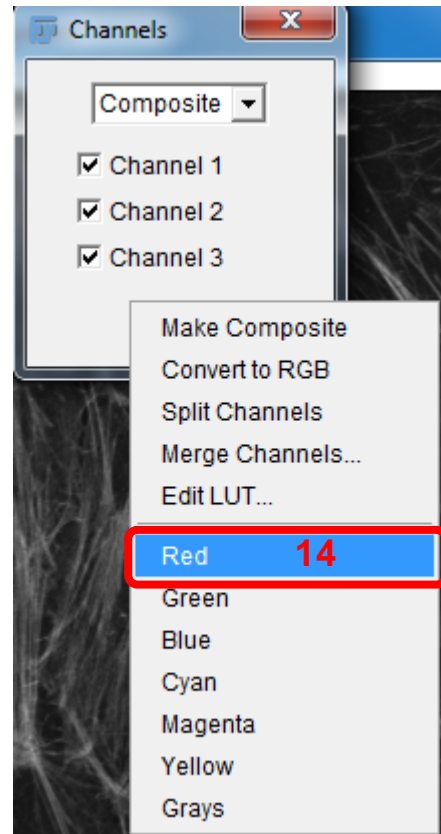**We know what the color should be because it is indicated in the name of the individual image.**
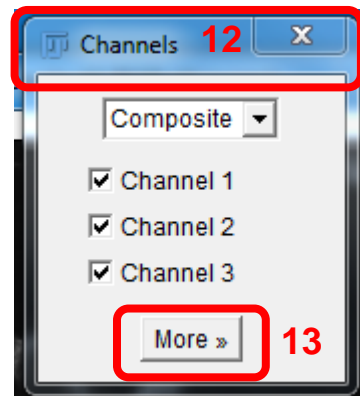
8. **Click on the image you wish to change color in order to select it.**
9. **Click Image.**
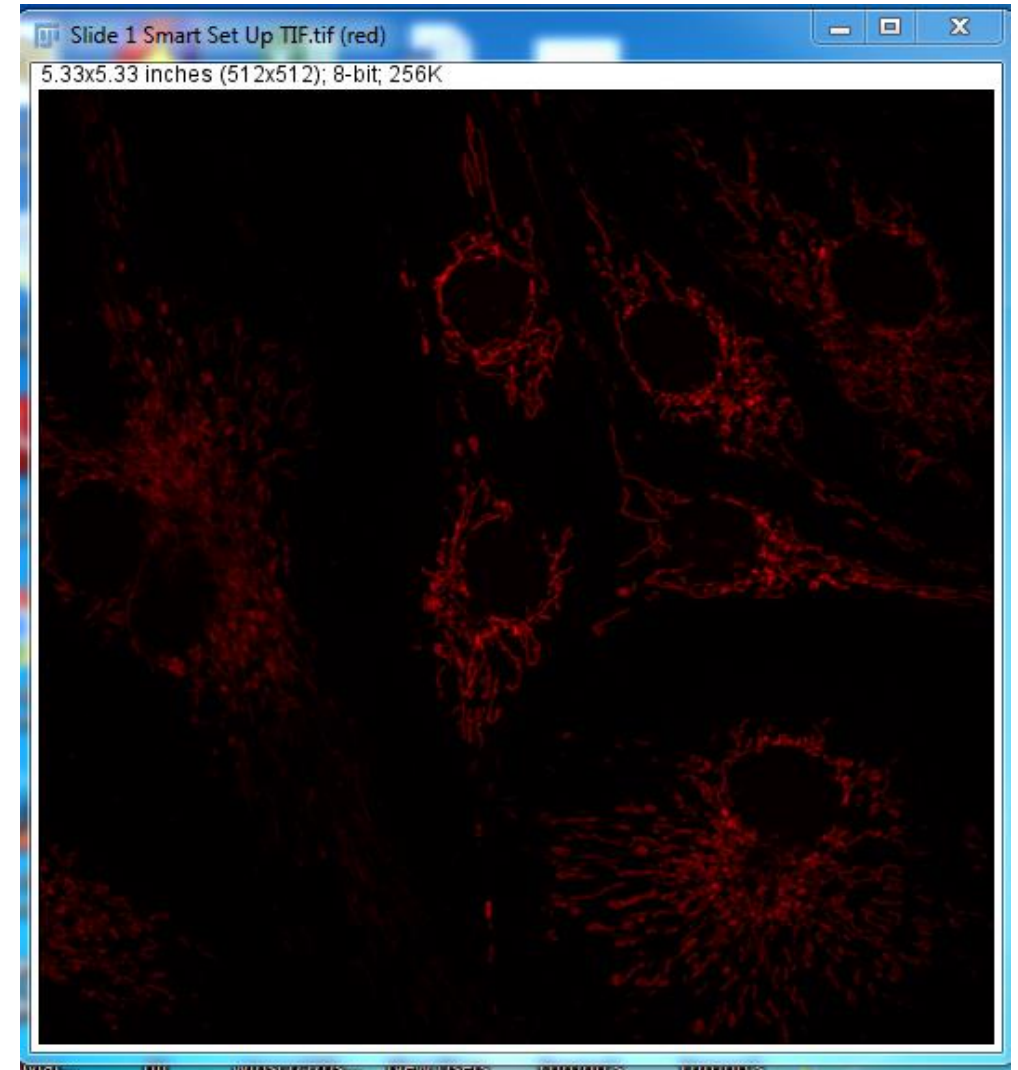10. **Select Color.**
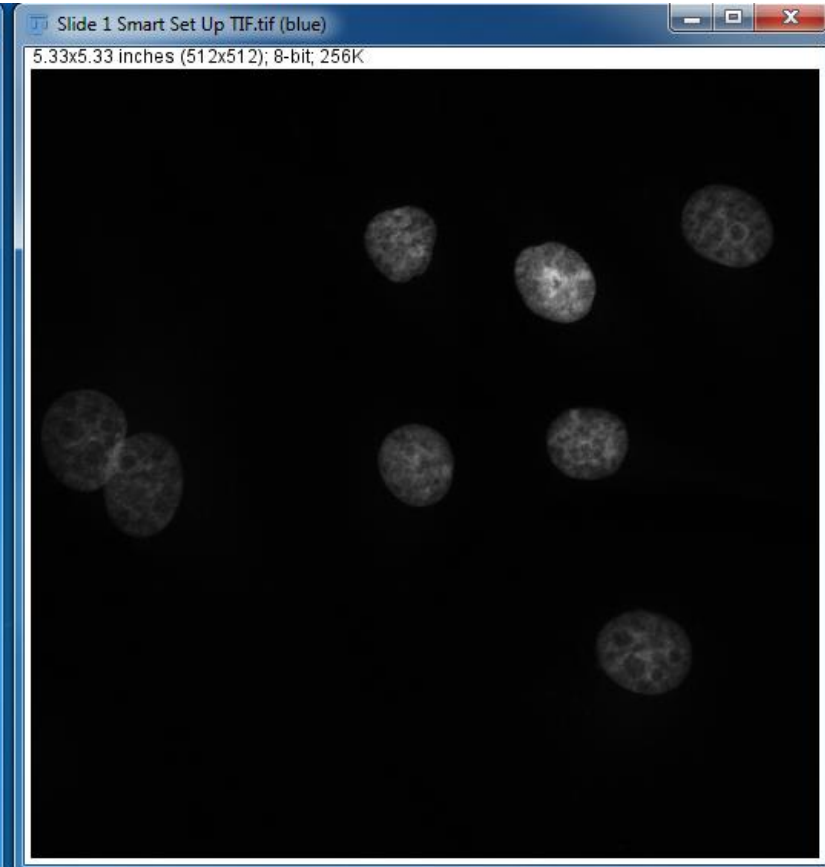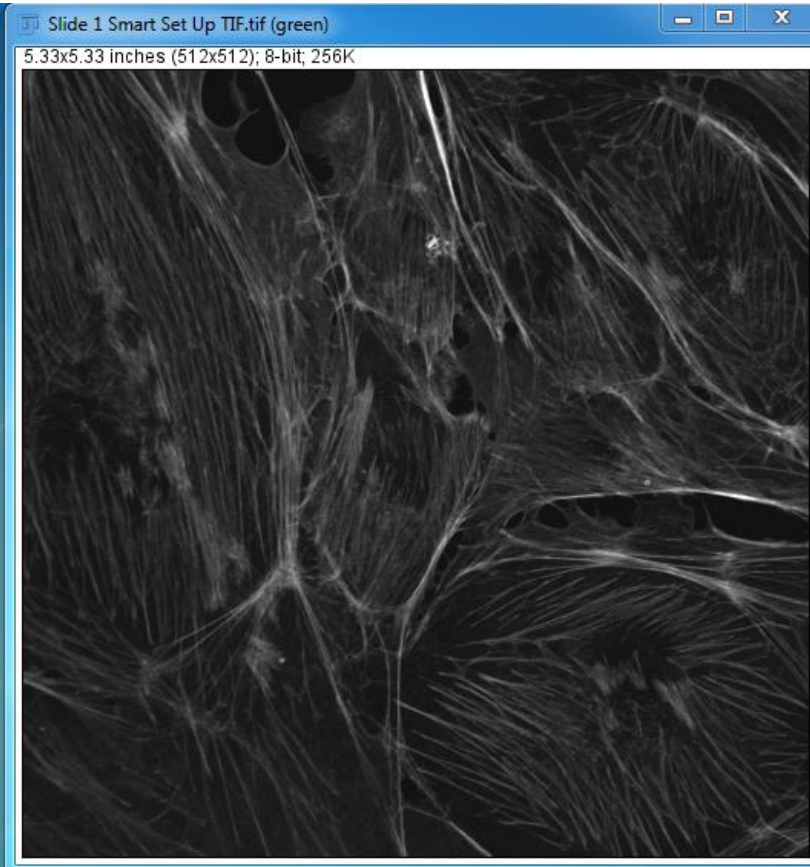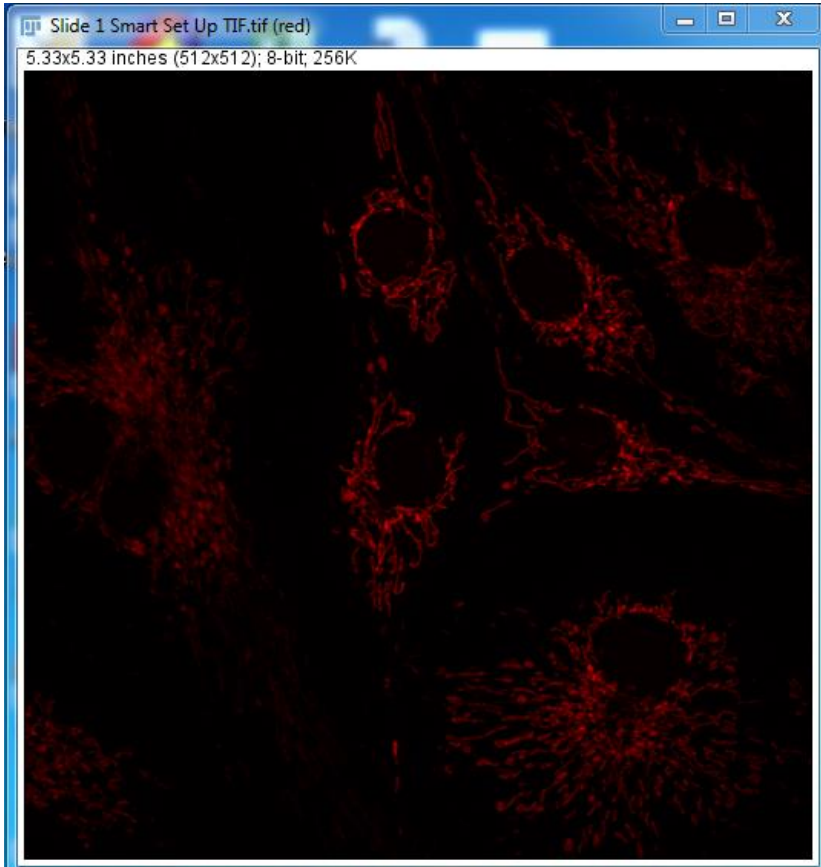11. **Select Channels Tool.**

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12. **You will now see the Channels box.**
13. **Click More.**
14. **Highlight and click the color you want.**
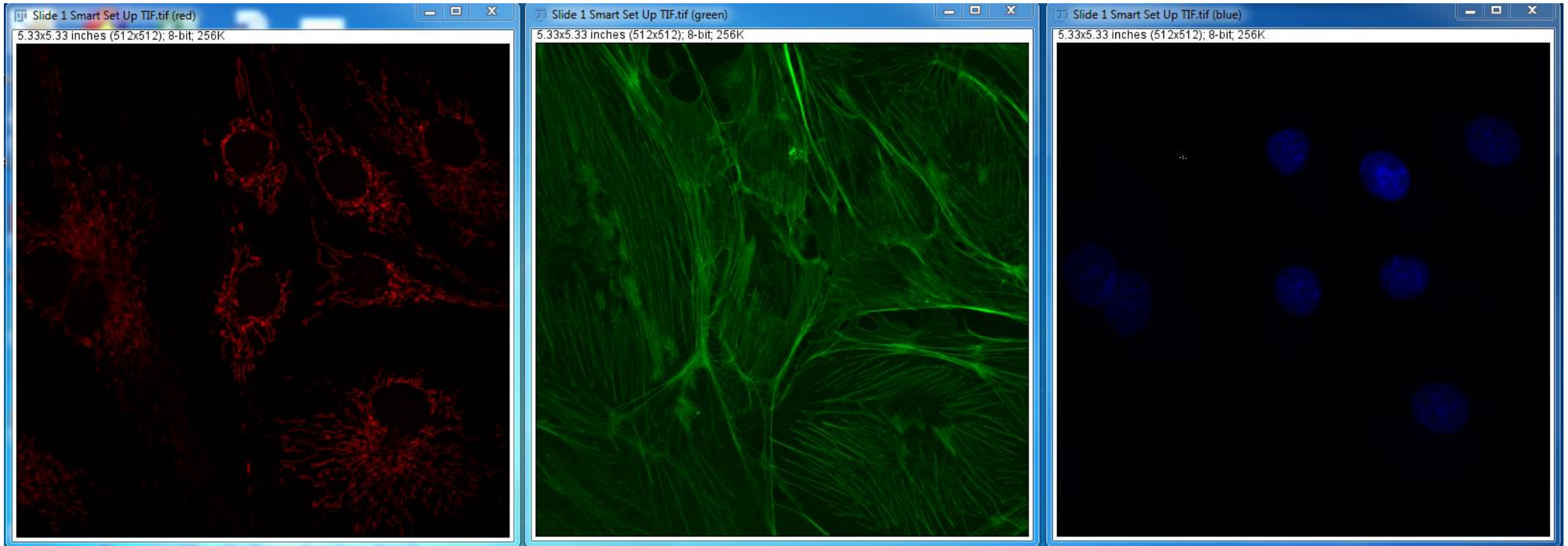15. **This is now your colored image.**

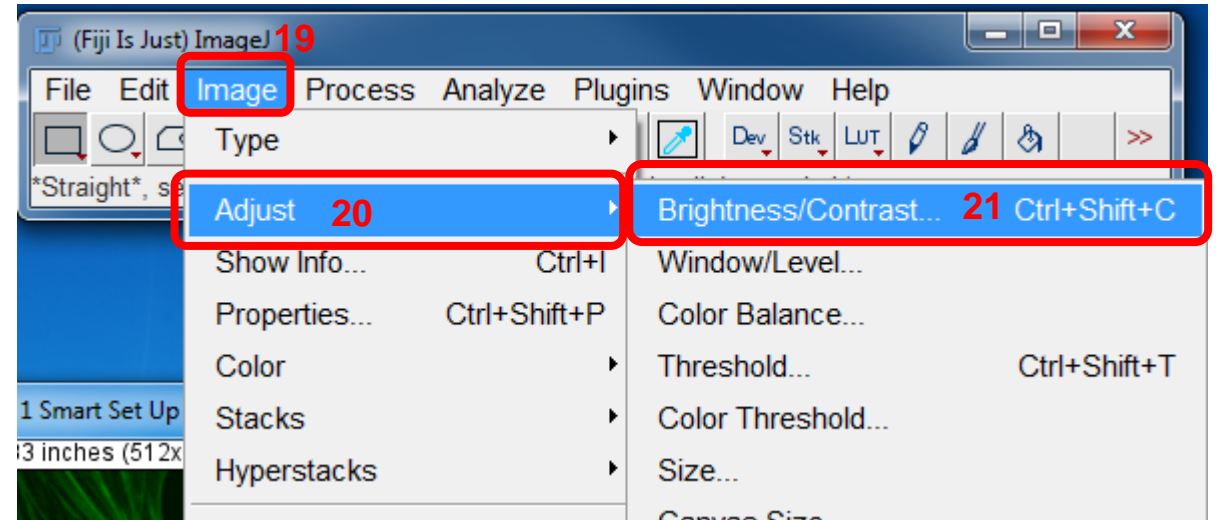
15

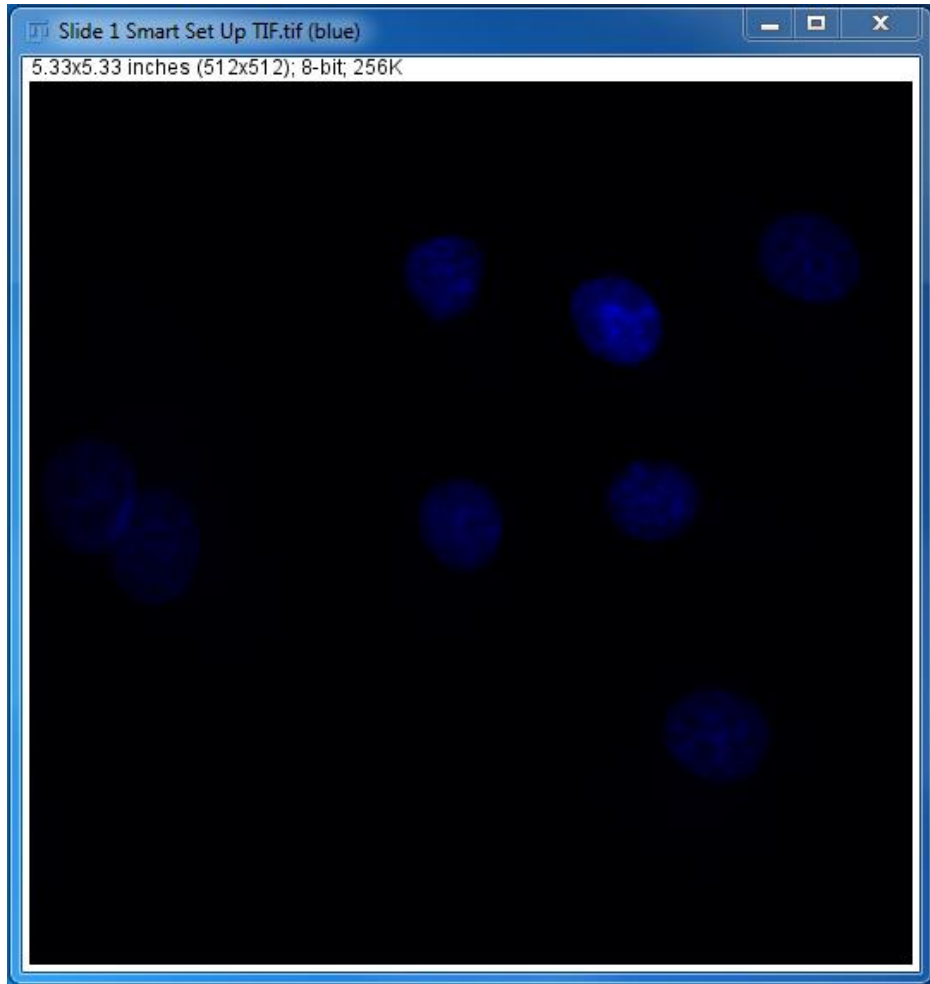**16. Repeat this for the other images.**

17. You now have your 3 individual images and in color. The blue is too dim and will need to be contrasted adjusted.

18. **Select the image you wish to contrast adjust.**
19. **Click Image.**
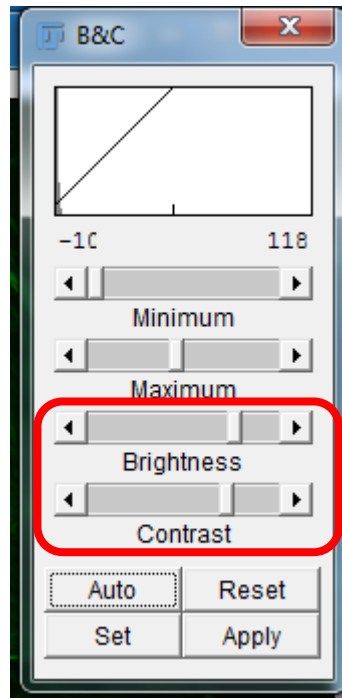20. **Select Adjust.**
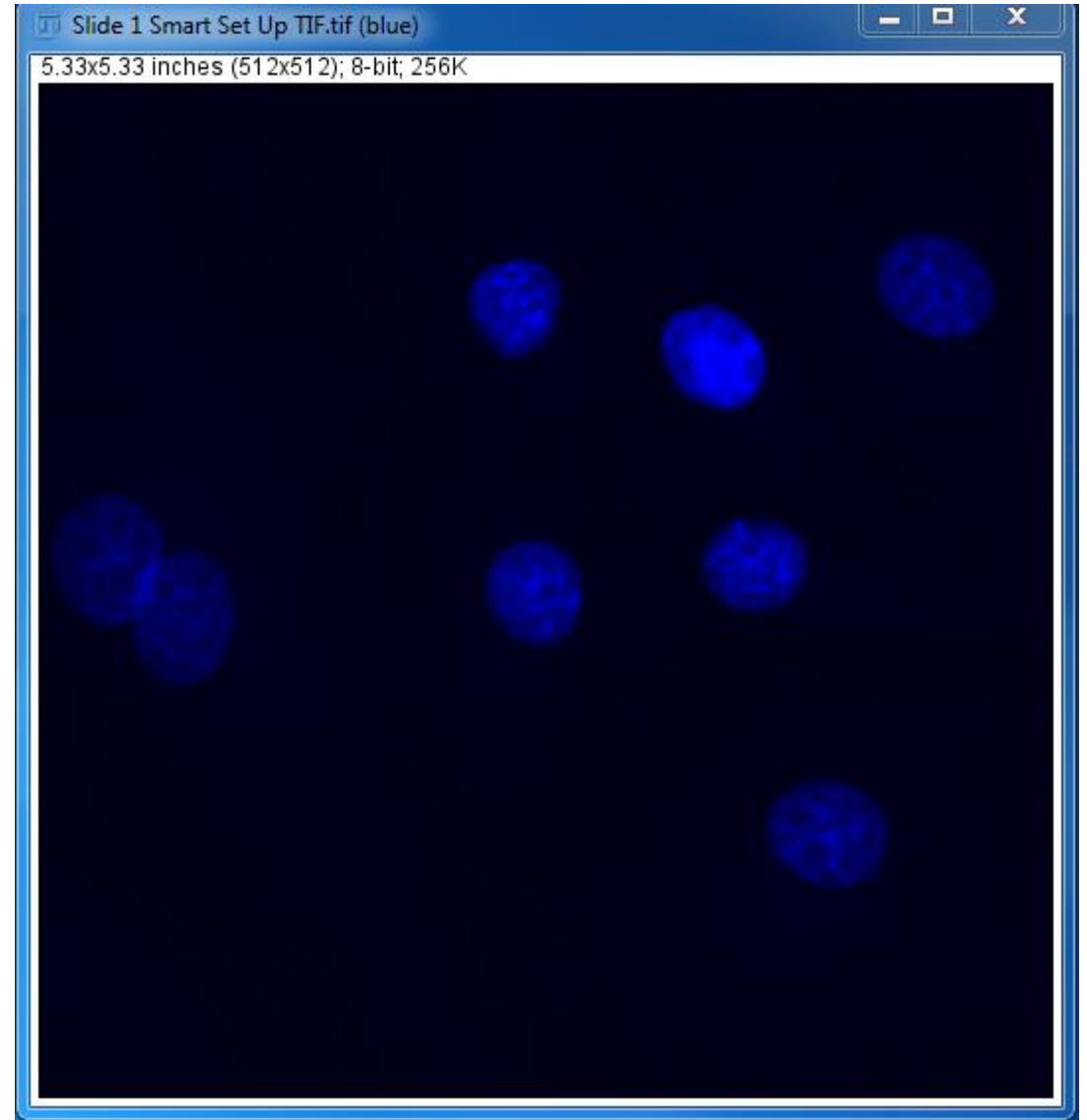21. **Select Brightness/Contrast.**

22. Adjust brightness and contrast.
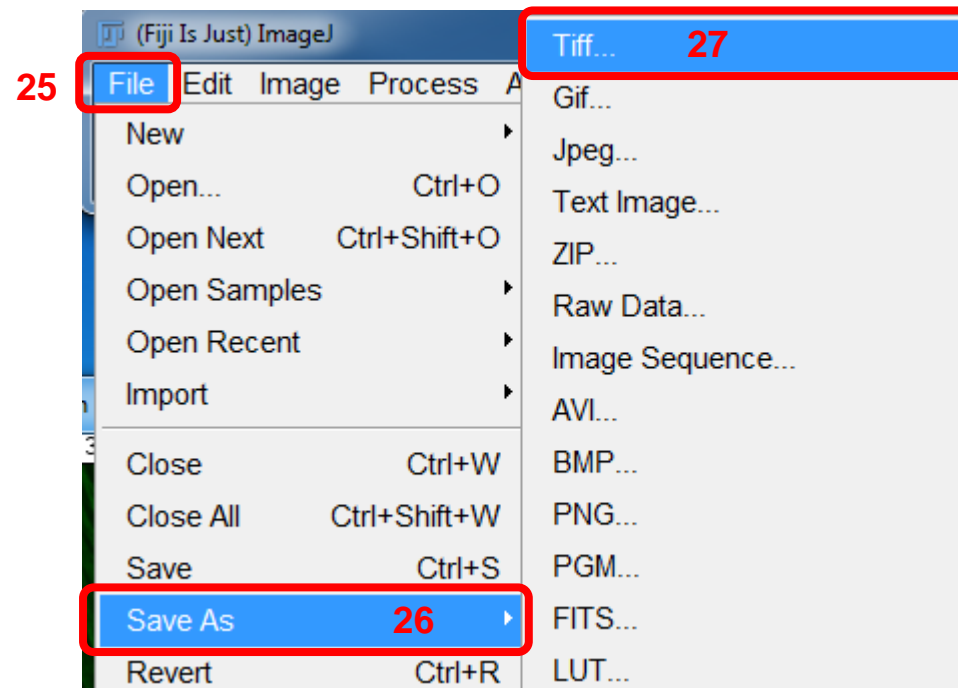**23. This is your adjusted image.**

Saving individual images:
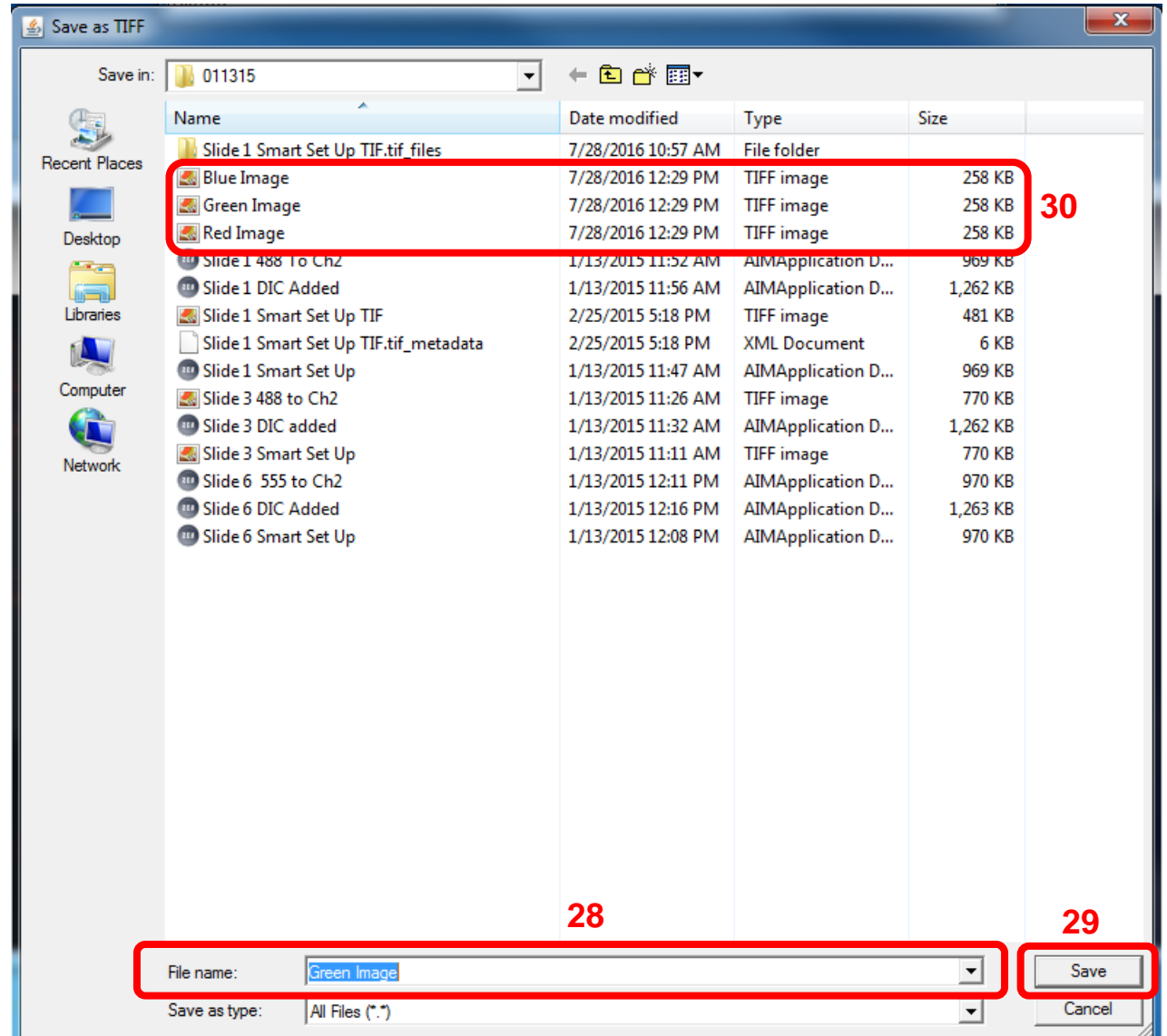24. **Click on Image to select it.**
25. **Click File.**
26. **Select Save As.**
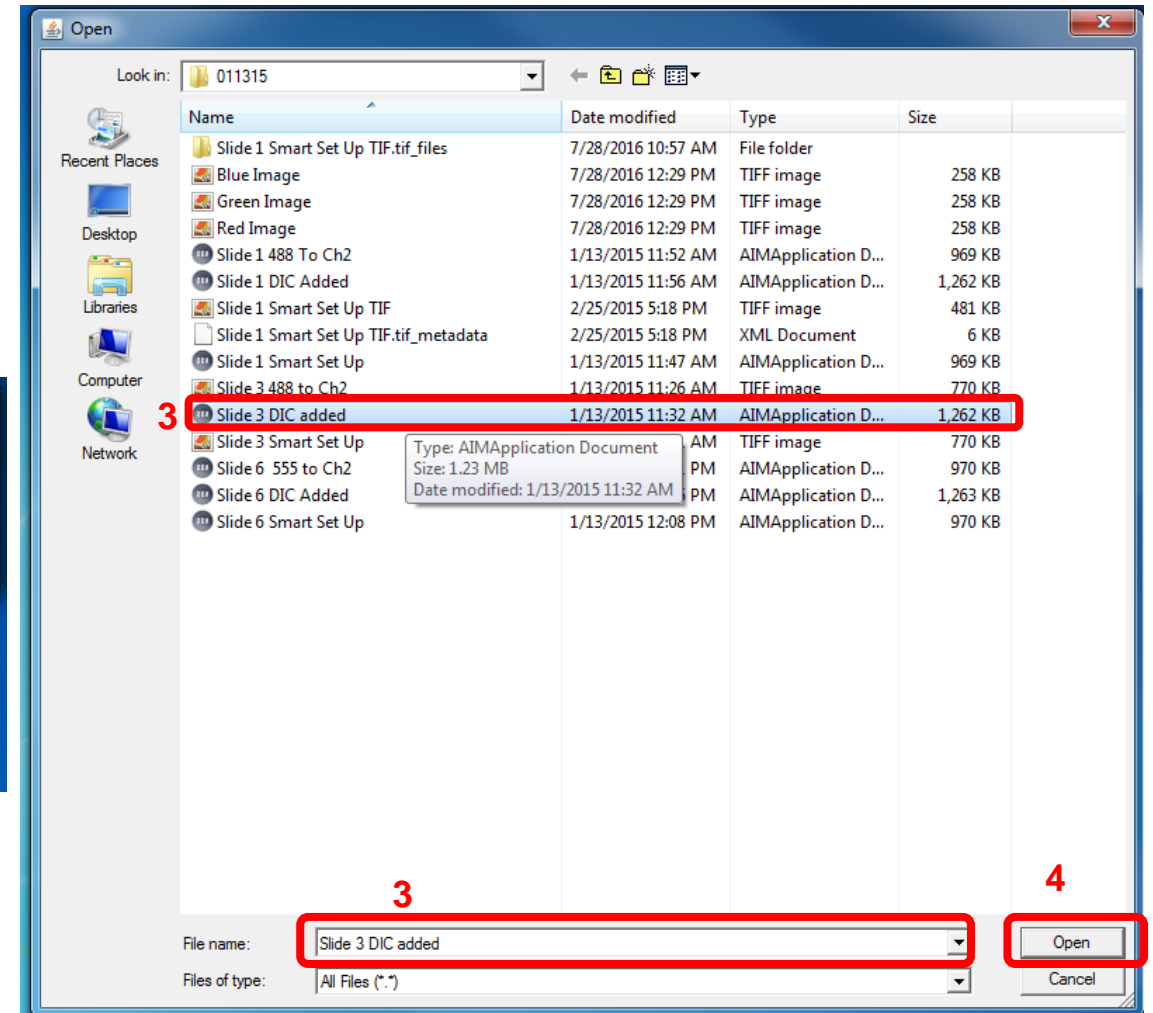27. **Select the file format. In this case .Tiff.**

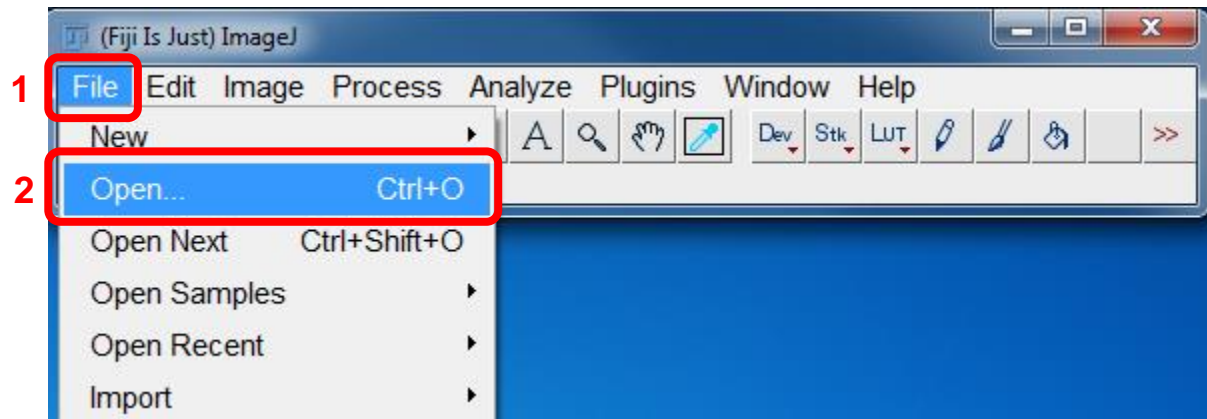**28.** In the File Name box give the image a name.

29. Click Save.

30. Repeat for the other images.

3 Color Merged and DIC Images

How to take a 3 Color DIC Image and display it as a 3 Color image and a DIC image.

1. **Click File.**
2. **Select Open to open file window.**
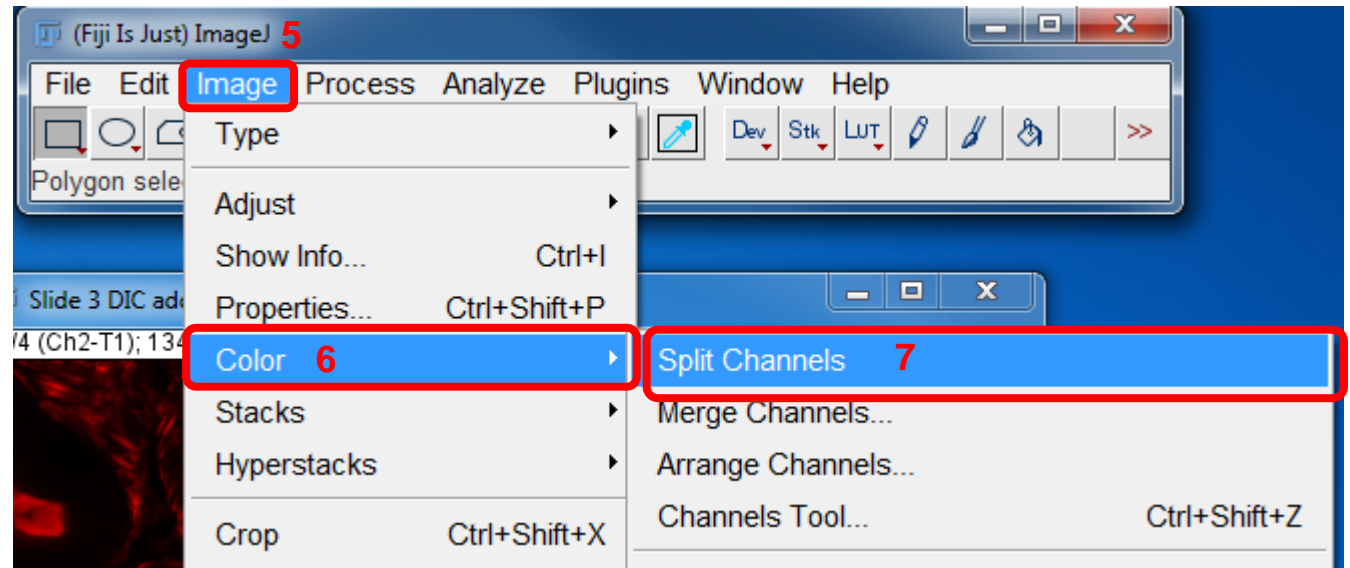3. **Highlight image file and click on file to select it.**
4. **Click Open.**

This is your image. It looks like it is only one color but we are actually only seeing 1 channel so one color. To see the others you move the slider at the bottom.

To Split the Channels:
5. **Click Image.**
6. **Select Color in the drop down menu.**
7. **Select Split Channels.**

8. The image is now split in to 4 individual files. Take note that each image is now numbered by Channel. See C# on each image [Red boxes].
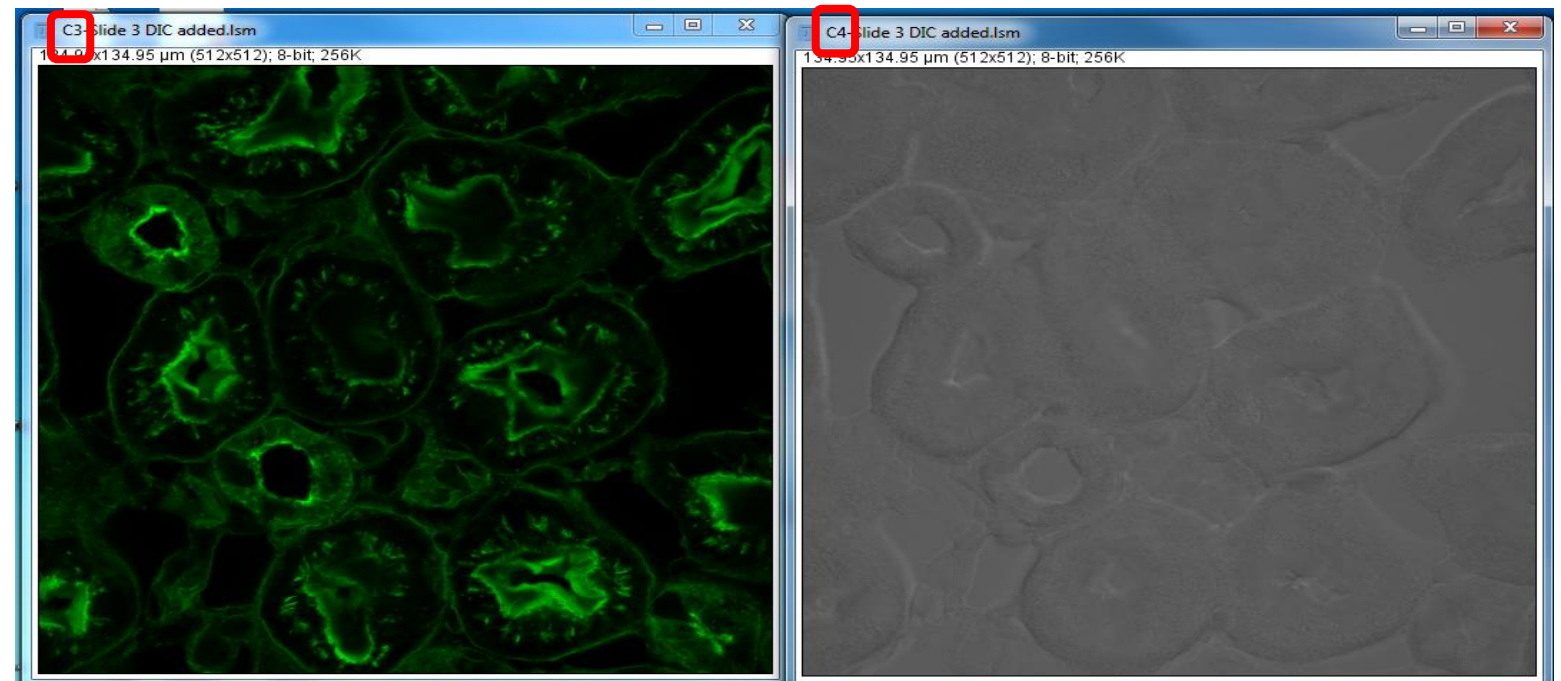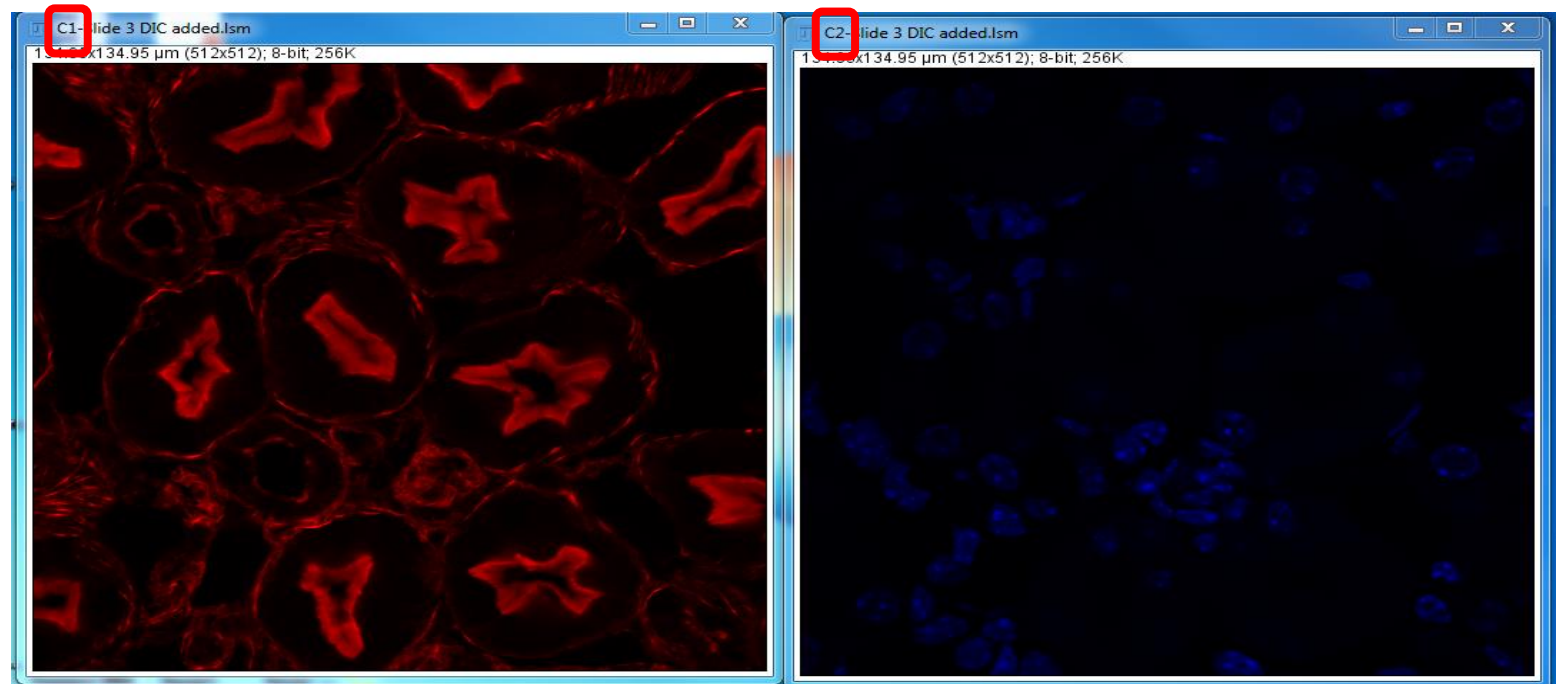
The Channels are:
C1: Red
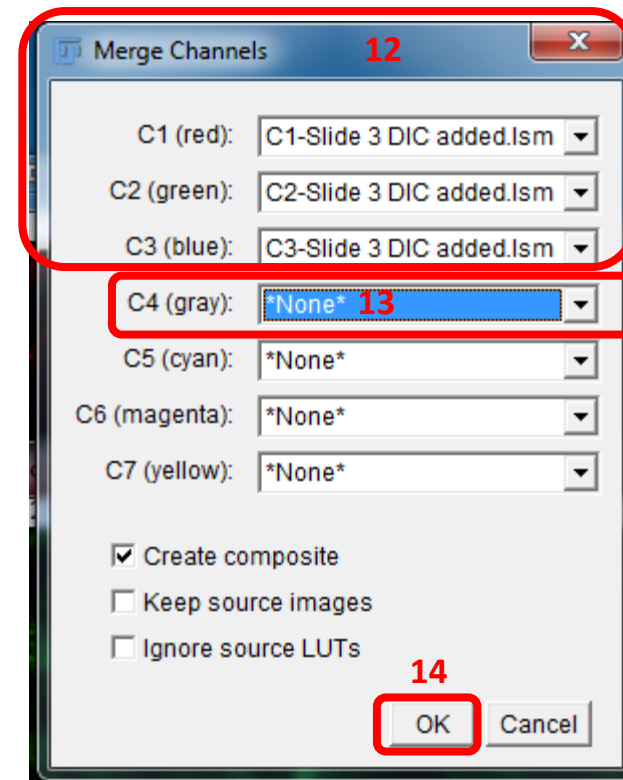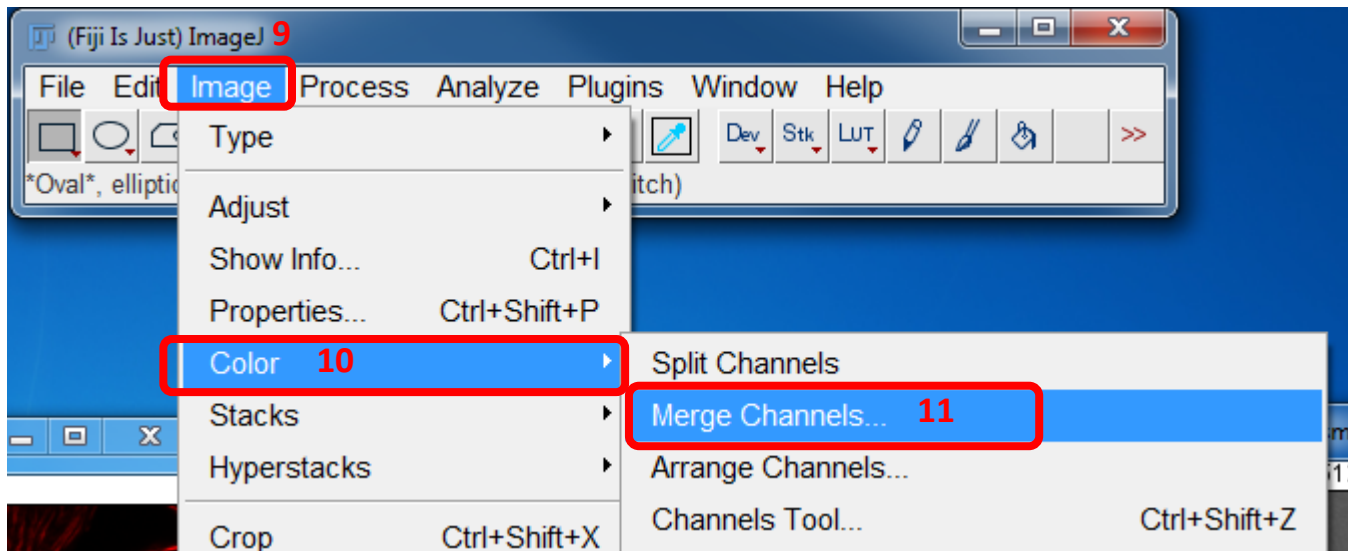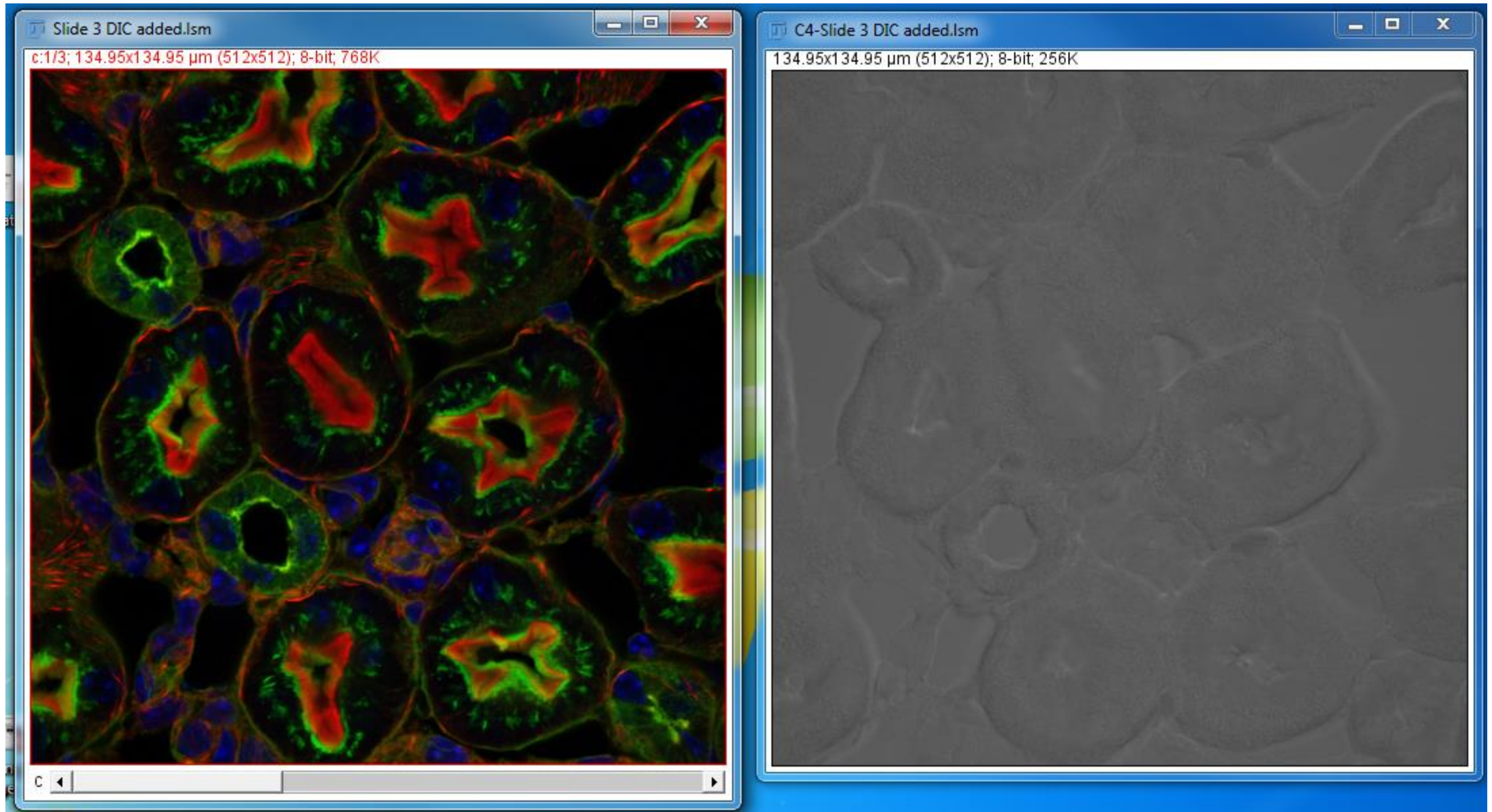**C2: Blue**
C3: Green
C4: DIC

To Merge only the Color Channels:
9. **Click Image.**
10. **Select Color from the drop down menu.**
11. **Select Merge Channels.**
12. **In the Merge Channels box make sure each Channel corresponds to the correct color.**
13. **For C4 (gray) select *None* so it will not be merged.**
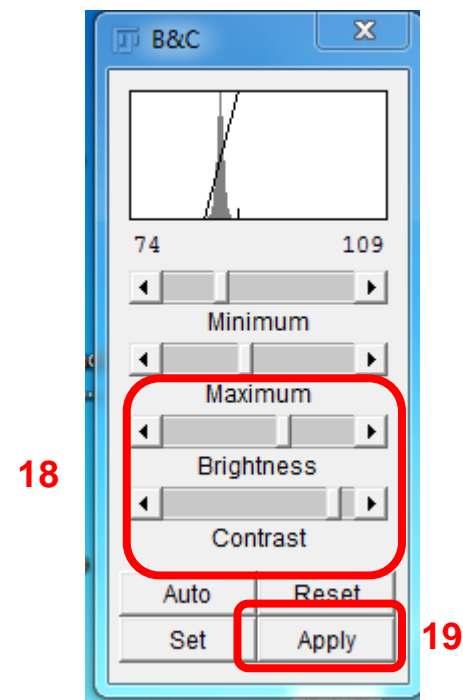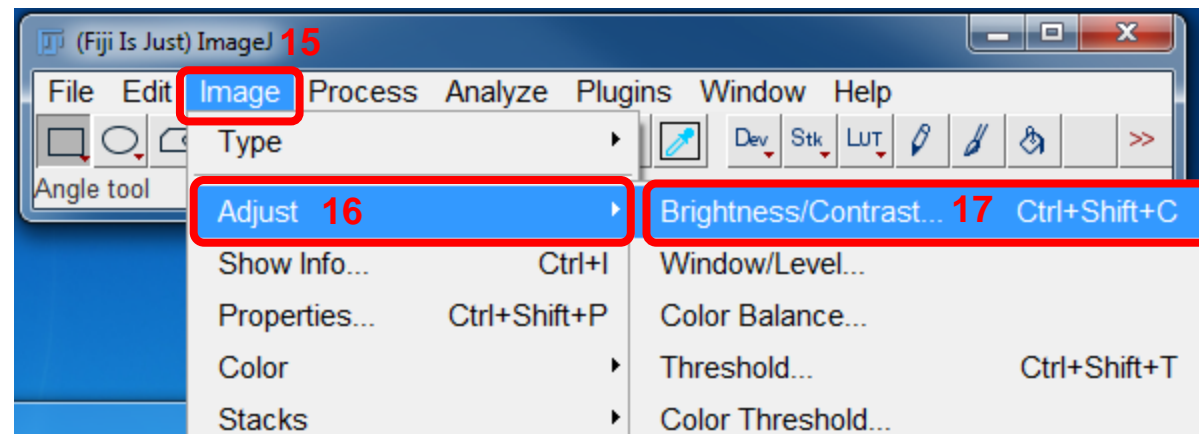14. **Click Ok.**

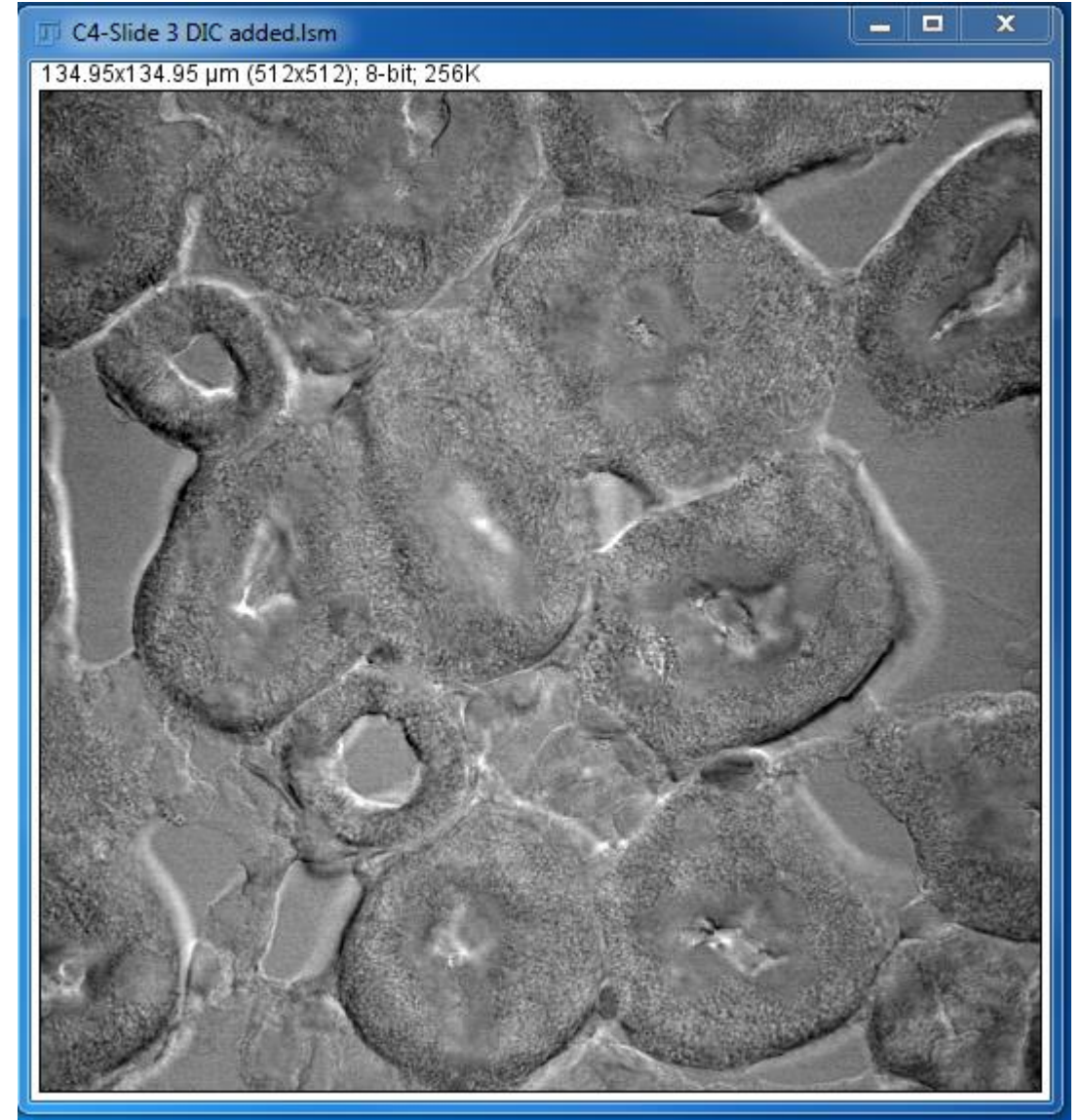**We now have a 3 Color Merged Image and a DIC Image. Adjustments can now be made to each image if necessary.**
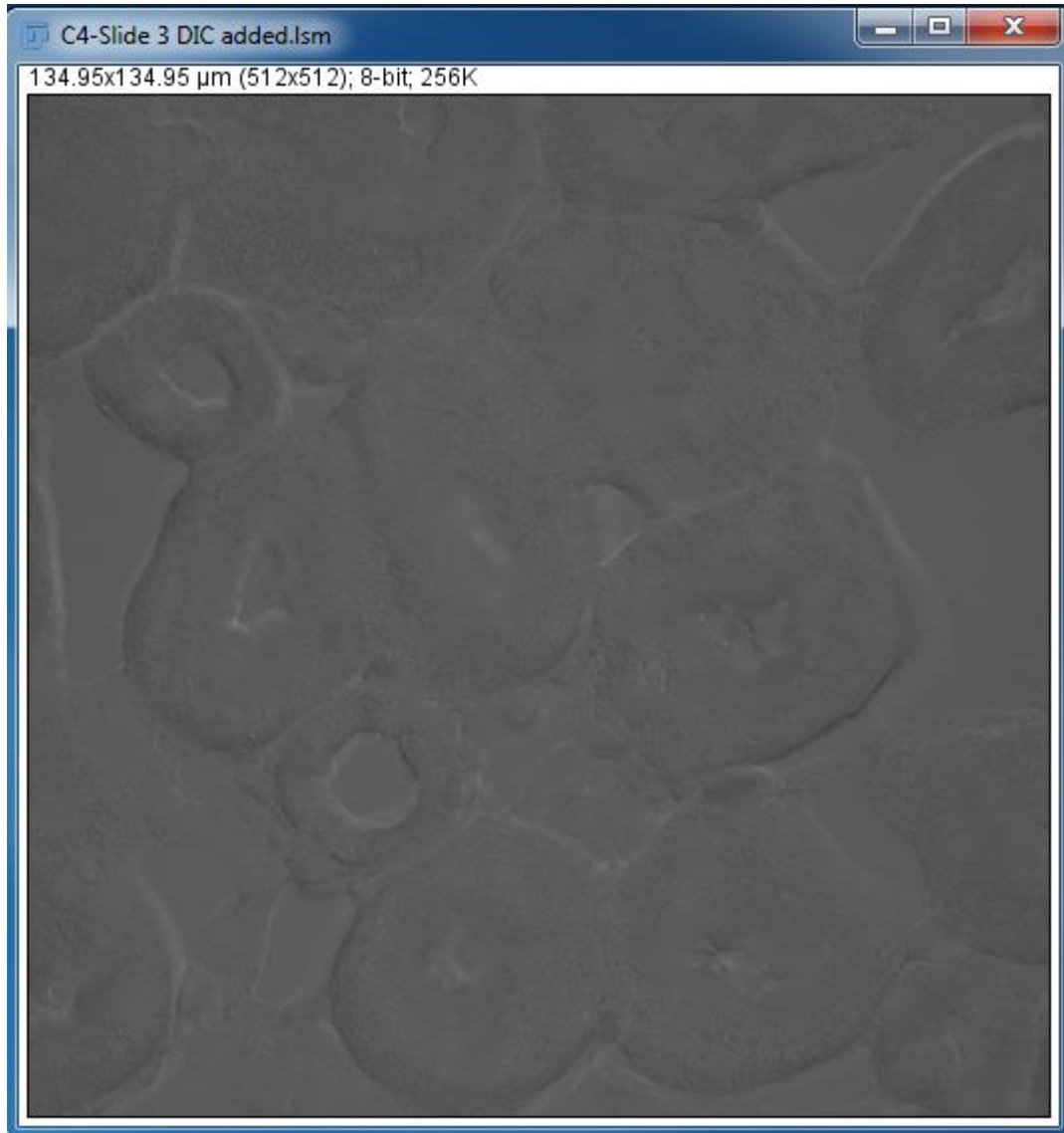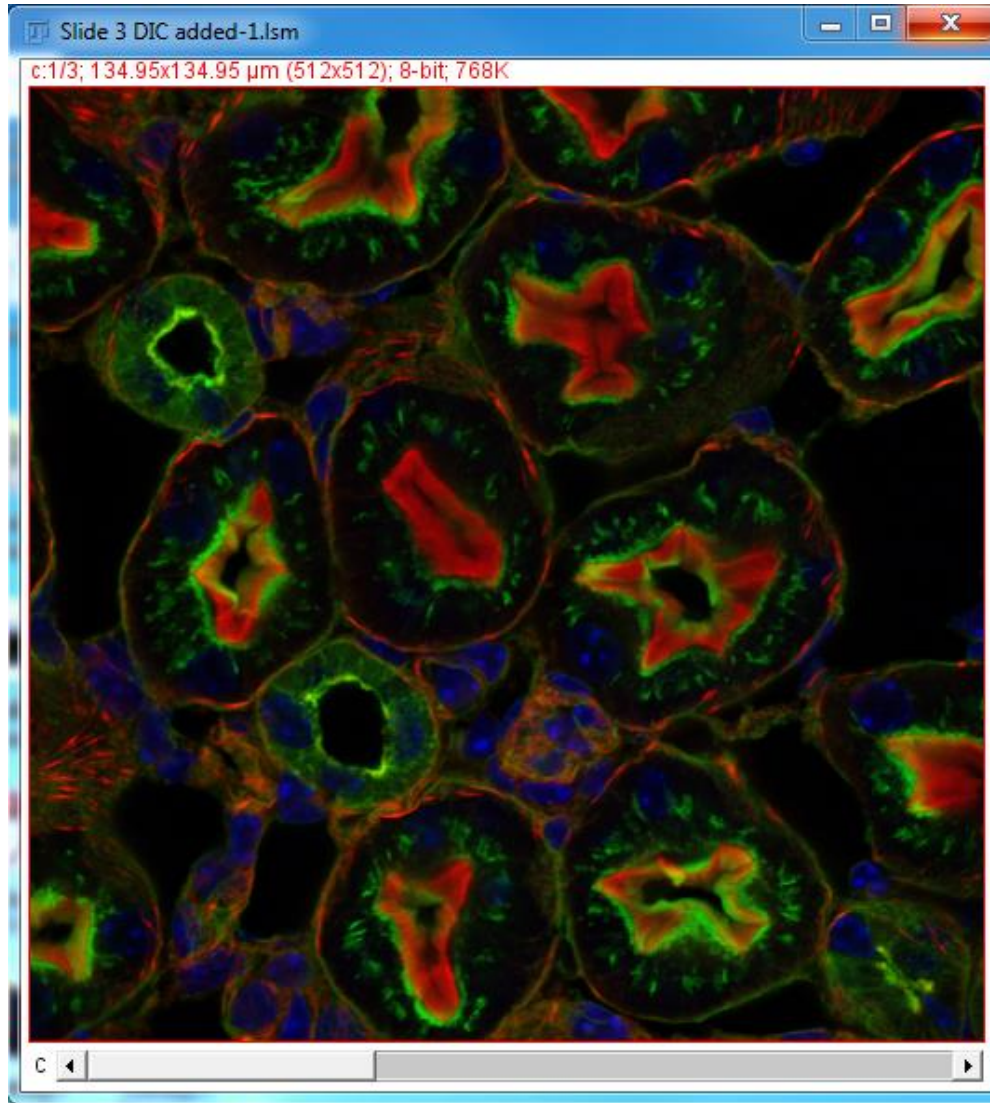
To Adjust Contrast:
15. **Click Image.**
16. **Select Adjust in the drop down menu.**
17. **Select Brightness/Contrast.**
18. **Adjust Brightness and Contrast.**
19. **Click Apply.**

Here are your before [left] and after [right] contrast adjust DIC images.

You now have 2 images that need to be saved.

To Save:

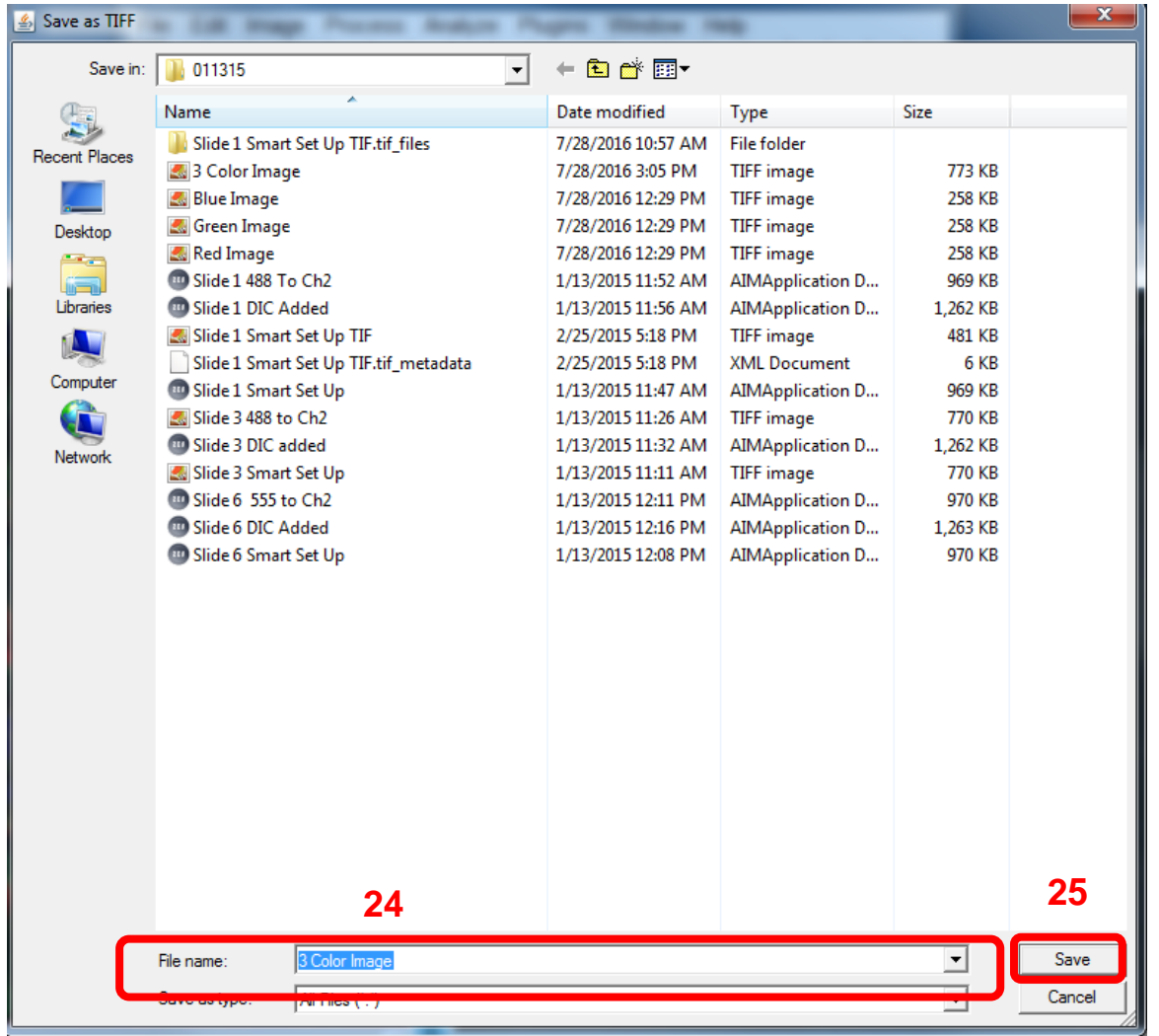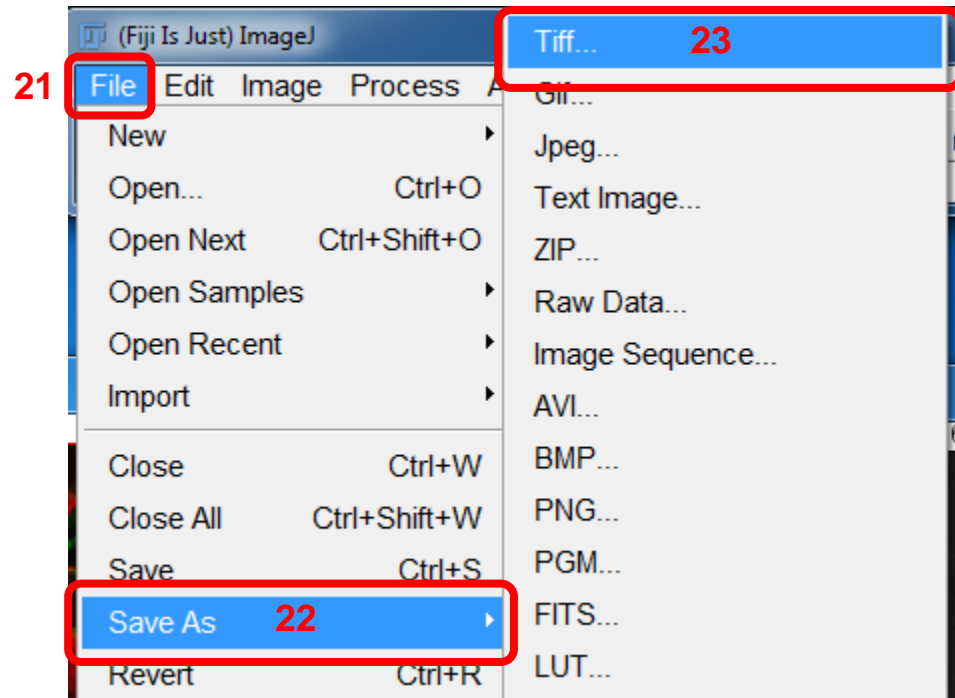20. **Click on Image to select it.**
21. **Click on File.**
22. **Select Save As in the drop down menu.**
23. **Select your image file. In this case .Tiff.**
24. **Give file a name.**
25. **Click Save.**
26. **Repeat for other image.**

Note new image files to confirm files are saved.