

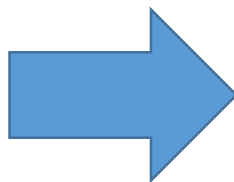
# Simple ImageJ Manual

Bioengineering Lab #12

<Live cell imaging and probing>

CSBI @ KAIST Bio&Brain Engineering

# 1. How to get ImageJ



- 1) Search 'ImageJ' in google
- 2) Click ImageJ – RSB Home Page

- 3) Click download

# 1. How to get ImageJ

## Download

### Platform Independent

To install ImageJ 1.46 on a computer with Java pre-installed, or to upgrade to the latest full distribution (including macros, plugins and LUTs), download [ij146.zip](#) (3.2MB) and extract the ImageJ directory. Use the *Help>Update ImageJ* command to upgrade to newer versions.

### Mac OS X

Download [ImageJ 1.46](#) (5.7MB) as a double-clickable Mac OS X application. Includes ImageJ64, which uses Java 1.6 in 64-bit mode on Intel Macs running OS X 10.5 or later. ([Instructions](#))

### Linux

Download ImageJ 1.46 [bundled with 64-bit Java](#) (40MB) or with [32-bit Java](#) (46MB). Both versions include Java 1.6.0\_24 from Sun and the ImageJ source code. ([Instructions](#))

### Windows

Download ImageJ 1.46 [bundled with 64-bit Java](#) (24MB; requires 64-bit Windows), [32-bit Java](#) (28MB) or [without Java](#) (3MB). ([Instructions](#))

### Documentation

Tiago Ferreira's comprehensive [ImageJ User Guide](#) is available as an 8MB PDF document and as a [ZIP archive](#). The online [JavaDoc API documentation](#) is also available as a [ZIP archive](#).

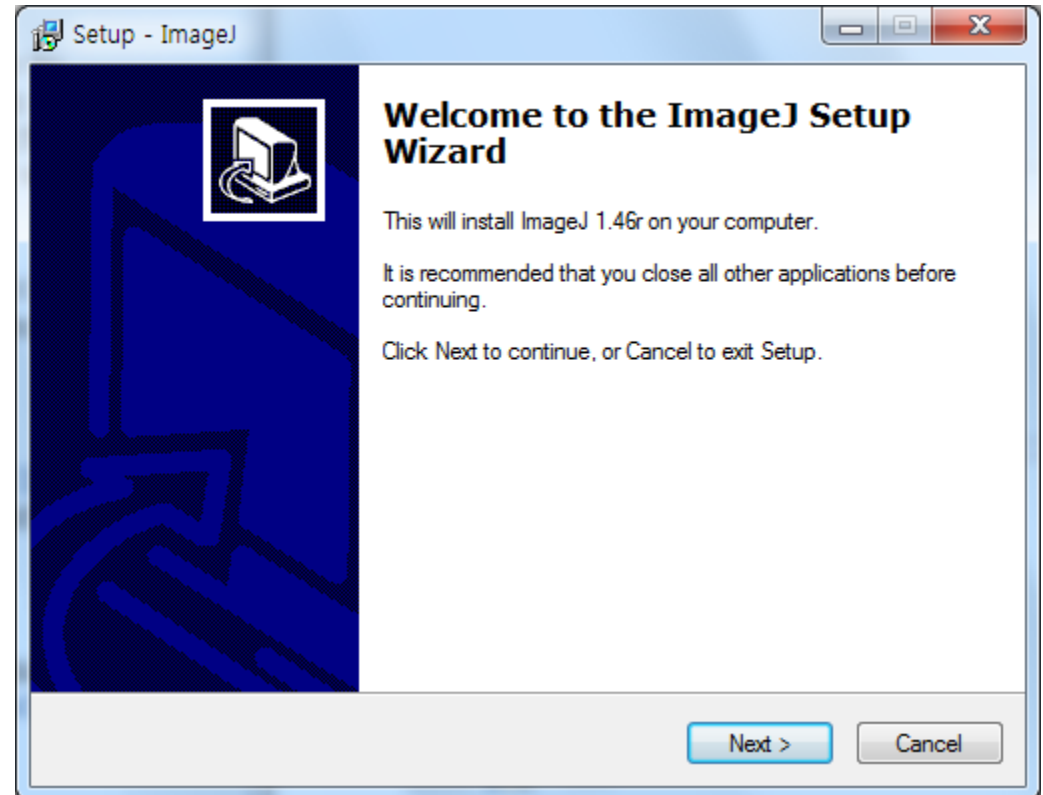
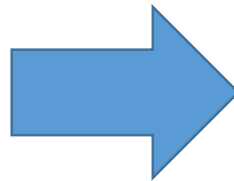
### Source Code

The ImageJ [Java source](#) consists of 120,000 lines of code in 350 files. It is available [online](#) and as [zip archives](#).

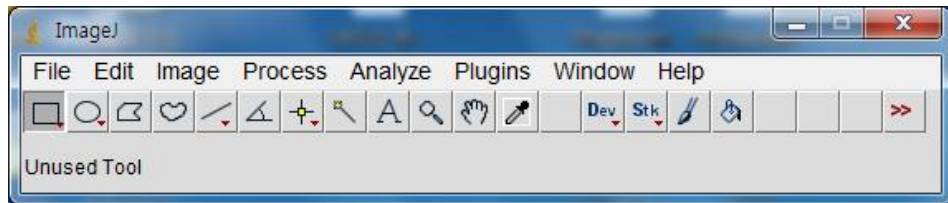
### Example Images

[31 downloadable sample images and stacks](#) are available in ImageJ's *File>Open Samples* submenu. These images, and more, are also available as a [8.2MB zip archive](#).

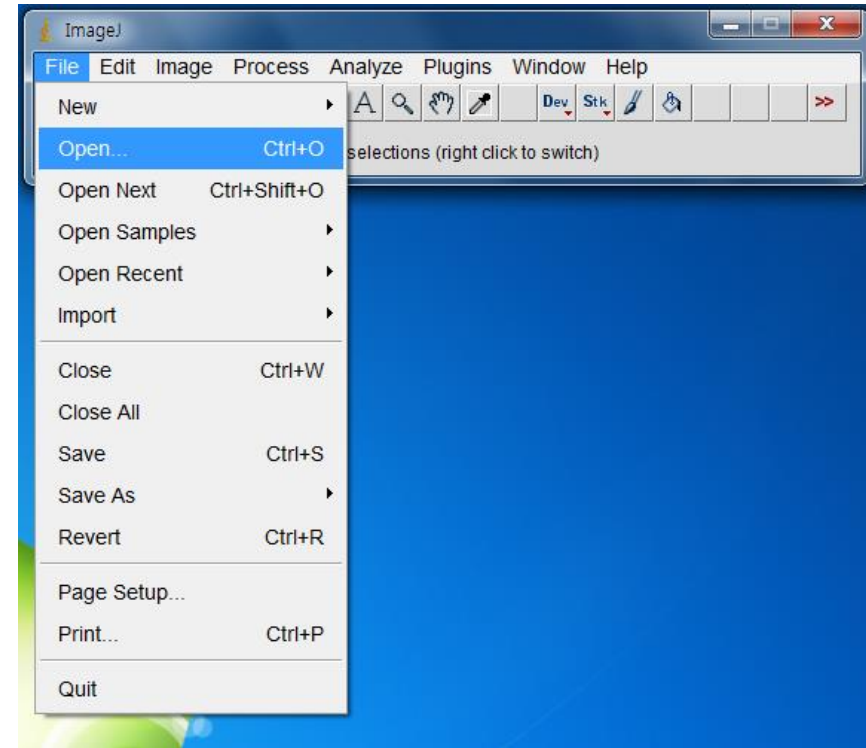
4) Download and install ImageJ. Get the bundle file if JAVA is not installed in your computer.



## 2. Opening files with ImageJ

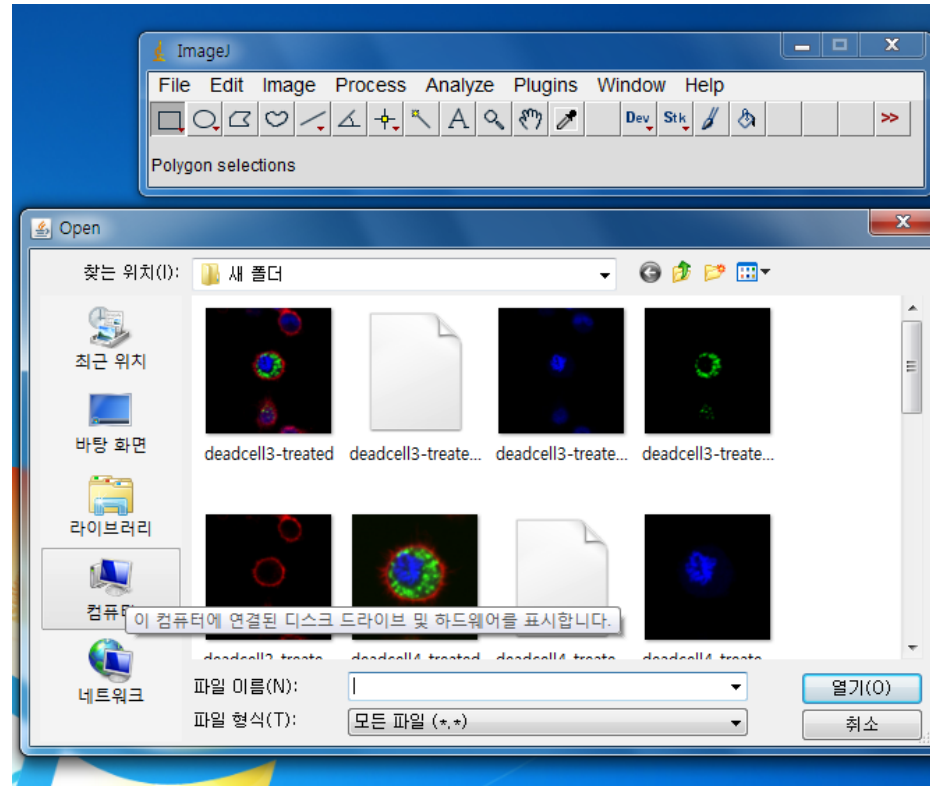


1) Execute ImageJ



2) Click file->open

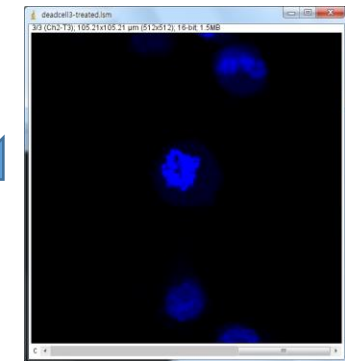
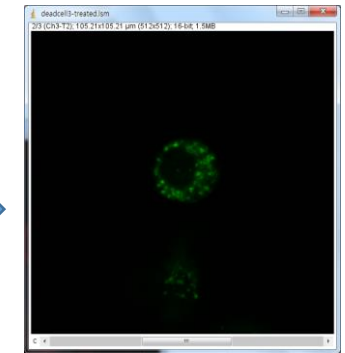
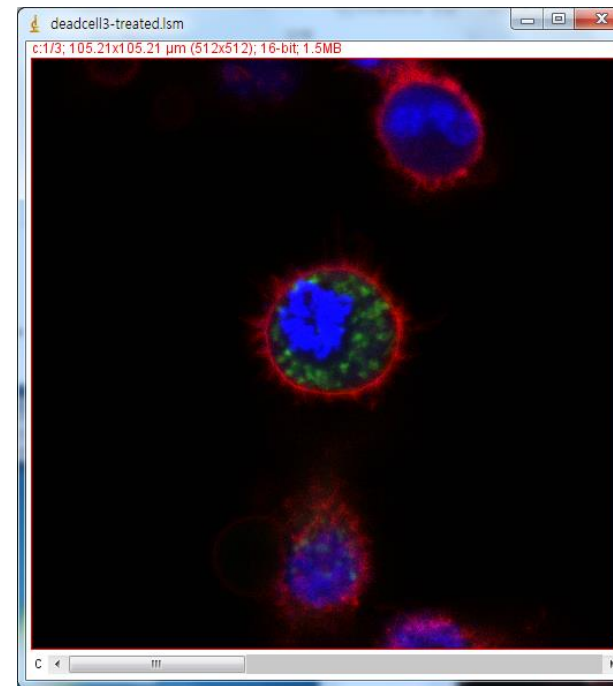
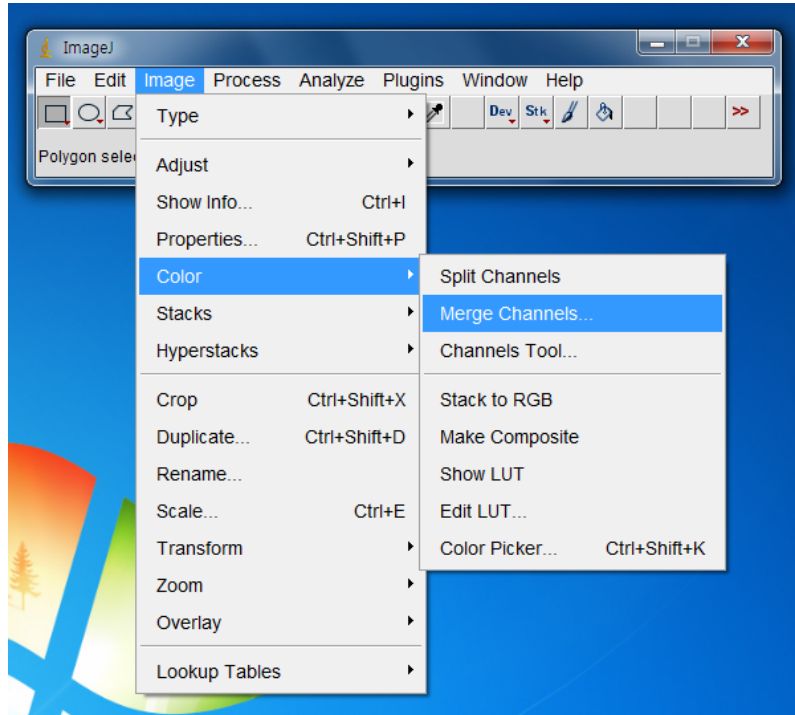
## 2. Opening files with ImageJ



3) Choose the file that you want to edit

\* Open \*.zvi file in our case

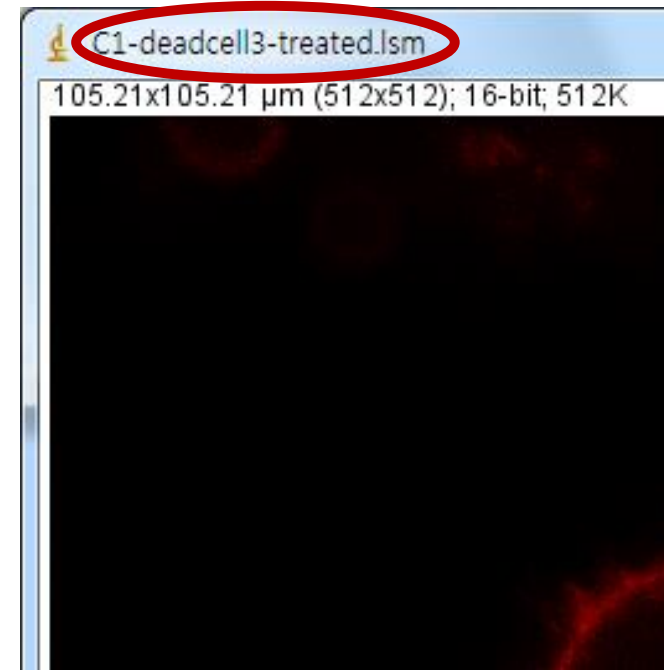
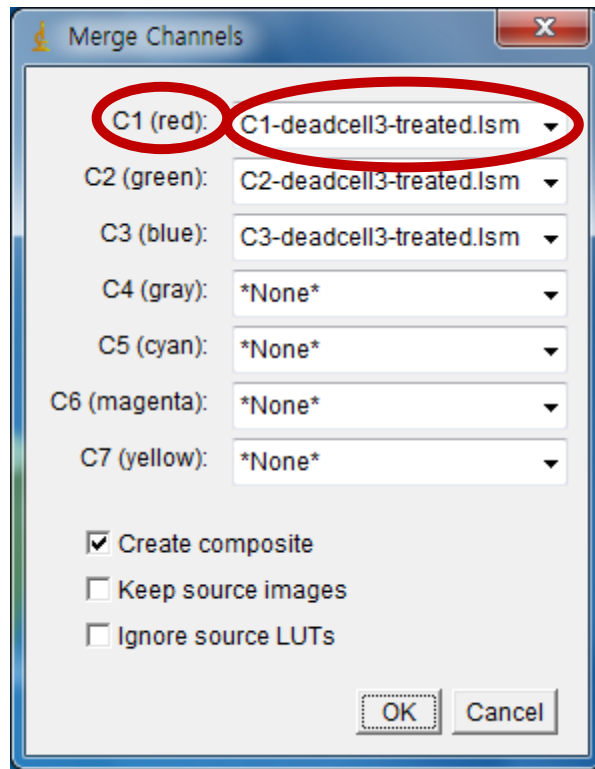
# 3. Splitting & merging channels



1) If the image is composed of multiple channels, you can split and merge the channels.

2) If you want to split the channels, just click Image->Color->Split Channels.

### 3. Splitting & merging channels

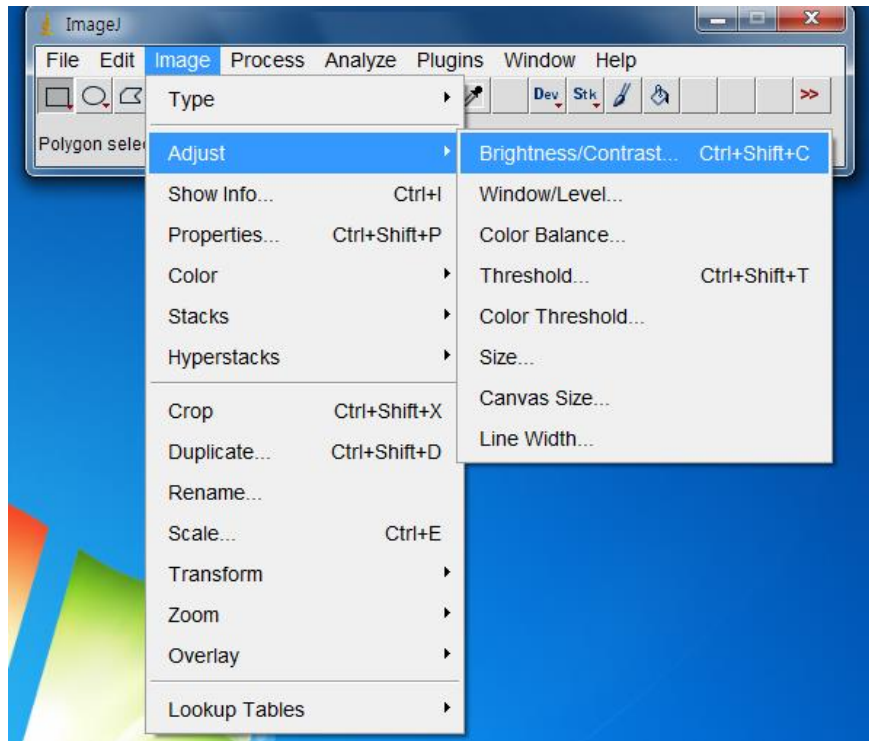


RED

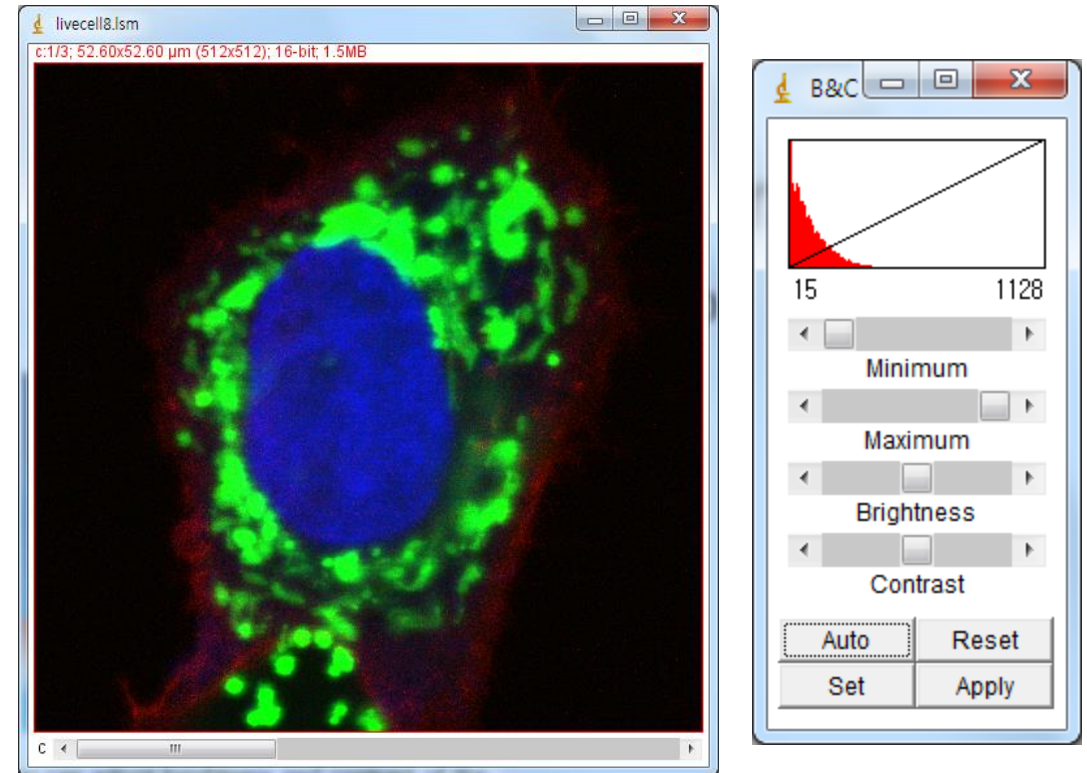
3) If you want to merge the channels, click Image->Color->Merge Channels. Then you will see a window like the picture above.

4) Check the name and color of channels carefully. Select collect files for R, G, B.

# 4. Adjusting brightness & contrast



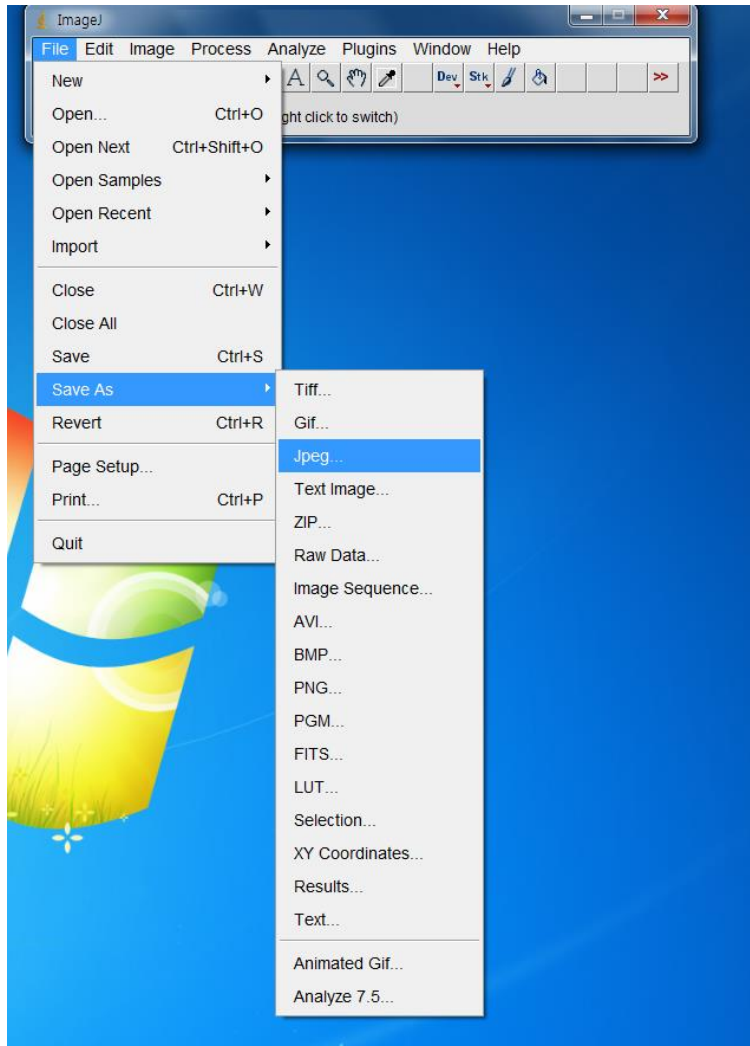
1) You can adjust brightness and contrast of the image. Click Image->Adjust->Brightness/Contrast. Or press hotkey Ctrl+Shift+C.



2) You will see the window above. Move the scroll bar to adjust the brightness and contrast to make better image. You also can adjust the B&C in each channels.



# 5. Saving the image file



- 1) ImageJ provides various save option. You can choose the format of image file at File->Save As.