Script Purpose: This script quantifies the neurite density across the z-slices of images taken of growth through the gel interface. You must manually select an ROI for each side of the gel interface where the growth is. You can do this before on imageJ using the 'delete_outside_ROI' macro on the Teams or you can do it in the script.

Inputs:

The inputs of the script are the LVCC stack images of the DRGs taken on the Thunder/confocal microscope. These images should all be in one folder which will be input into the script.

This script was designed for gel interface experiments. Some manual ROI selection is necessary.

Outputs:

The outputs of the script will be the neurite densities of each image in each condition, which can be saved as a .csv file to your computer. The script can also plot the neurite densities through the z-stack. Plots are displayed in the notebook but can be downloaded to your computer.

How to run the script:

You can hit 'Run all' in the upper left of the screen, or you can run each cell one at a time for troubleshooting. You will have to manually save each csv file and each plot to your computer. Here is an example of a plot of neurite density through the z-stack in the well vs. channel. The outputs should look something like this.