Instruction – Ring Chirality Analysis

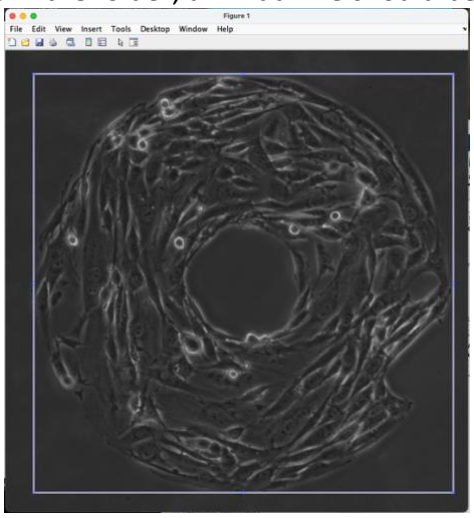
1. Open “ROI_selection.m”, change the directory of data folder to be analyzed. # (Switch “/” into “\” for windows system)

```
dirx='/Users/SECTION_VI/Desktop/Data/1';
x=dir([dirx '/*.tif'])
```

2. Change image size.

```
h = imrect(gca, [160 160 800 800]);
```

3. Run code. Manually drag the selection square to fit the ring, then double click to confirm, repeat for every image in the folder, a “.mat” file should be generated for each image.



4. Open “Analysis_batch.m”, change directory of folder, same as step 1. # (For windows users, go to line 124 and 130 to change “/” into “\”)

```
%%%%%saving data in the matlab mat files
file_output=[dirx '/excelsummary.mat'];
save(file_output,'files','p','mu','ul','ll','s','s0');


%%%%%%%%%%%%%%%%%exporting data into .txt file for veiw with microsoft excel
file_order=[dirx '/datatoexcel.txt'];
```

5. Run code. A txt file “datatoexcel.txt” will be generated, containing circular stats for each ring as well as numbers of clockwise, non-chiral and anti-clockwise rings.

NOTE: the circular statistic toolbox is required to run this code. Download here:

https://www.mathworks.com/matlabcentral/fileexchange/10676-circular-statistics-toolbox-directional-statistics