*% Project Assignment #3*

*%===============================================================================*

*% B.2 : Crop background and save cropped image sequentially witout compression*

*%===============================================================================*

*% User's image location settings*

inputDir1 = 'microscope\_char';

inputDir2 = 'DrosophilaVesicleTransport';

filename = 'APPYFPX\_Lgt\_a07r10s01\_001.tif';

outputDir = 'CroppedImages';

imagePath = [inputDir1, filesep, inputDir2, filesep, filename]; *% Cross-platform format*

I = imread(imagePath);

figure('Name', 'Please select the background of this image to be saved'), imshow(I, [])

rect = getrect();

croppedRegion = imcrop(I, rect);

close;

*% Create directory if doesn't exist*

**if** **~**exist(outputDir, 'dir')

    mkdir(outputDir);

**end**

structOfImages = dir([inputDir1, filesep, inputDir2, filesep, '\*.tif']);

**for** i = 1:length(structOfImages)

    filename = structOfImages(i).name;

    filenameOut = ['cropped\_', filename];

    filePathOut = [outputDir, filesep, filenameOut];

    imagePath = [inputDir1, filesep, inputDir2, filesep, filename];

    I = imread(imagePath);

    croppedRegion = imcrop(I, rect);

    imwrite(croppedRegion, filePathOut, 'tiff', 'Compression','none');

**end**