/*

QUANTIFICATION OF SYNAPTOPHYSIN-POSITIVE PUNCTA PER CELL AREA

Definitions:

c1= *z-stack images.* **c2**= *Vimentin composite images.* **c3**= *Amytracker composite images.*

The threshold (*min* and *max*) and pixel size (*min* and *max*) are set manually for each experiment and subsequently applied to all images.

/*

// Counting the number of synaptophysin-positive puncta

//Automation

inputfile = "C:\\Input\\";

outputfile = "C:\\Output\\";;

list = getFileList(inputfile);

setBatchMode(true);

for (i=0; i<list.length; i++) {

 showProgress(i+1, list.length);

 open(inputfile+list[i]);

//Measurement

run("Set Scale...", "distance=1 known=0.65 pixel=1 unit=micrometer");

run("Subtract Background...", "rolling=50 sliding");

run("16-bit");

setAutoThreshold("Default dark");

setThreshold(min, max);

setOption("BlackBackground", true);

run("Convert to Mask");

run("Despeckle");

run("Watershed");

run("Analyze Particles...", "size=min-max pixel circularity=0.10-1.00 display summarize add");

}

// Meaurement of cell area using β3-Tubulin signal

//Automation

inputfile = "C:\\Input\\";

outputfile = "C:\\Output\\";;

list = getFileList(inputfile);

setBatchMode(true);

for (i=0; i<list.length; i++) {

 showProgress(i+1, list.length);

 open(inputfile+list[i]);

//Measurement

run("Set Scale...", "distance=1 known=0.65 pixel=1 unit=micrometer");

run("Subtract Background...", "rolling=50 sliding");

run("16-bit");

setThreshold(min, max);

setOption("BlackBackground", true);

run("Set Measurements...", "area limit display redirect=None decimal=2");

run("Measure");

}