

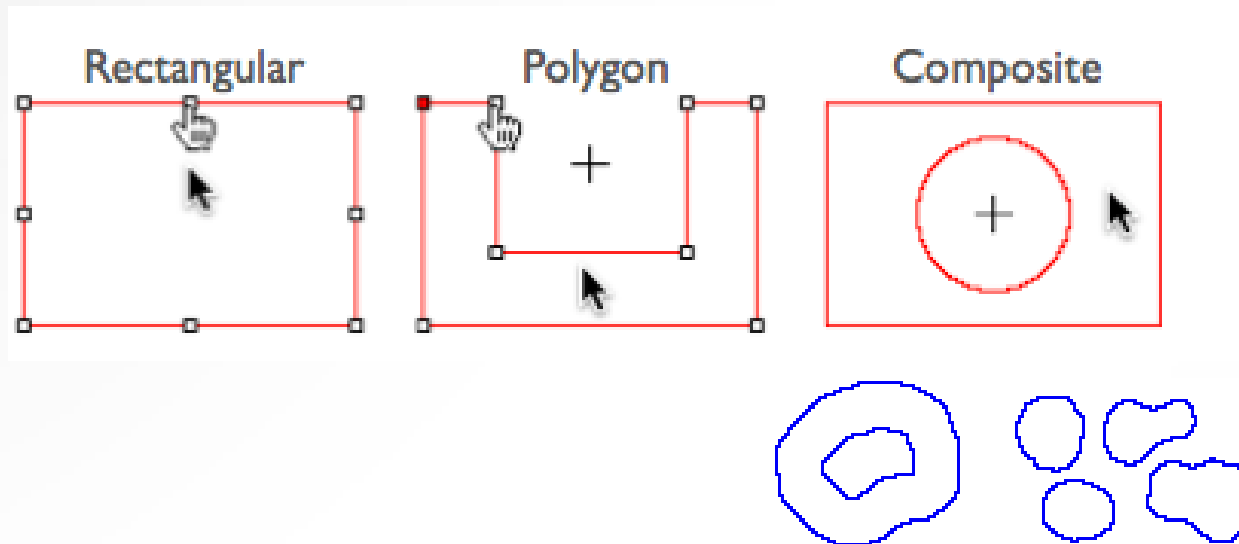
Asan J & Image J 실무연수강좌

ROI & Measurement

성 유 섭

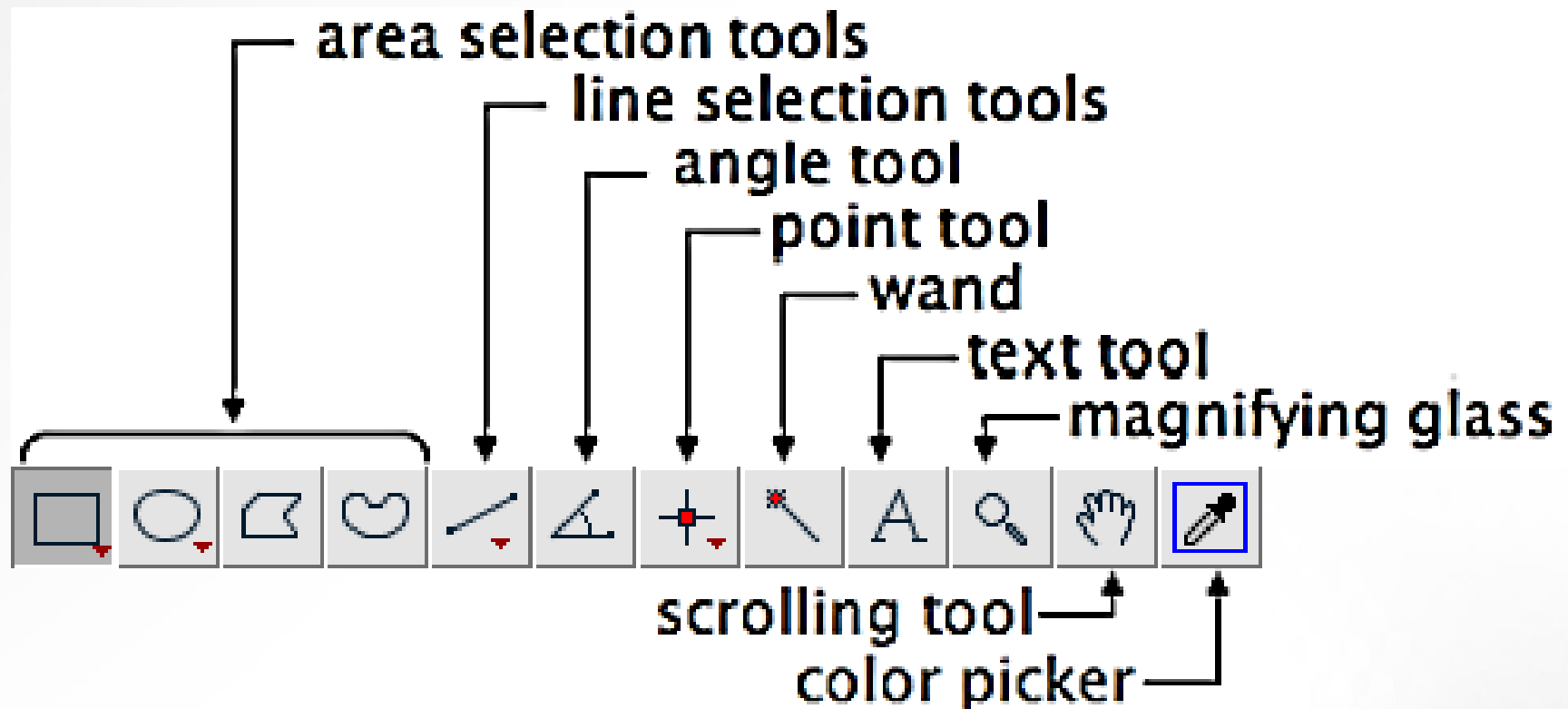
Biomedical Imaging Infrastructure

Selections



- + Cursor outside selection
- Selection can be moved
- Selection can be resized
- Edge can be moved, deleted or added

Selections

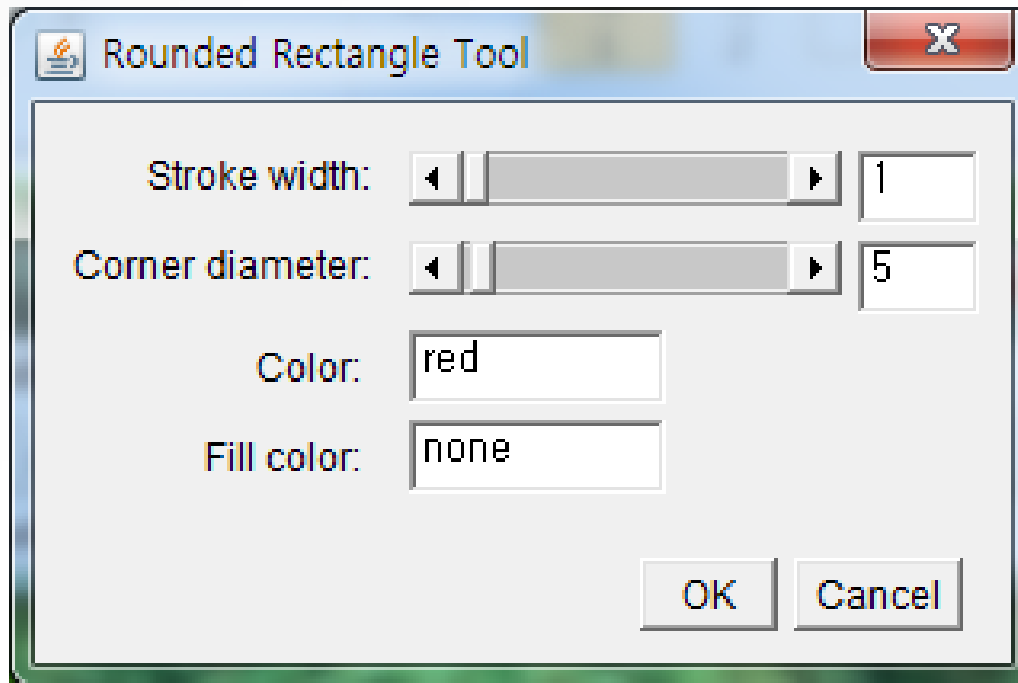


Rectangle Selections



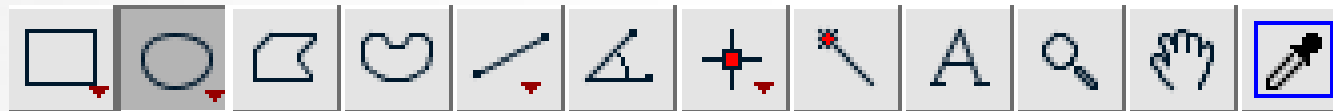
✓ Rectangle Tool

Rounded Rectangle Tool

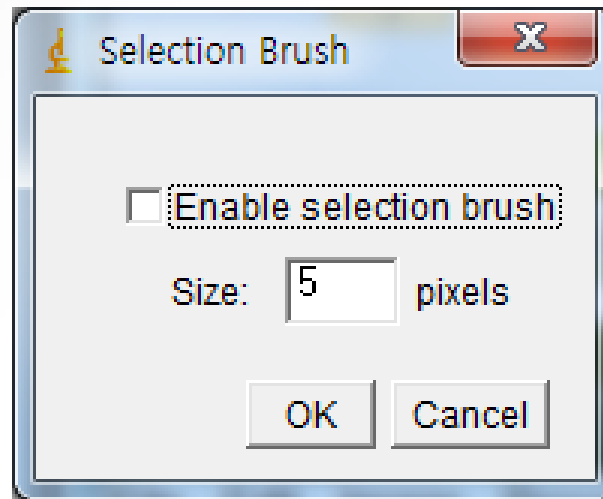


Red
Green
Blue
Magenta
Cyan
Yellow
Orange
Black
White

Oval Selections



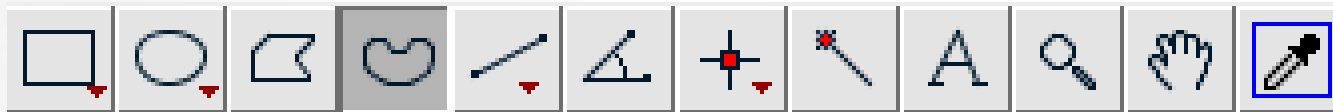
- ✓ Oval selections
- Elliptical selections
- Selection Brush Tool



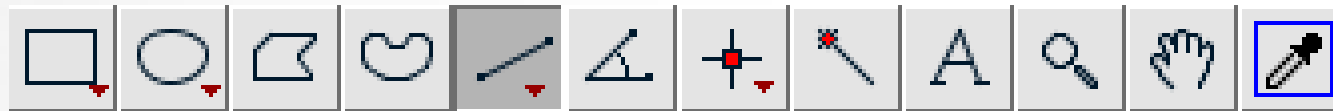
Polygon Selection



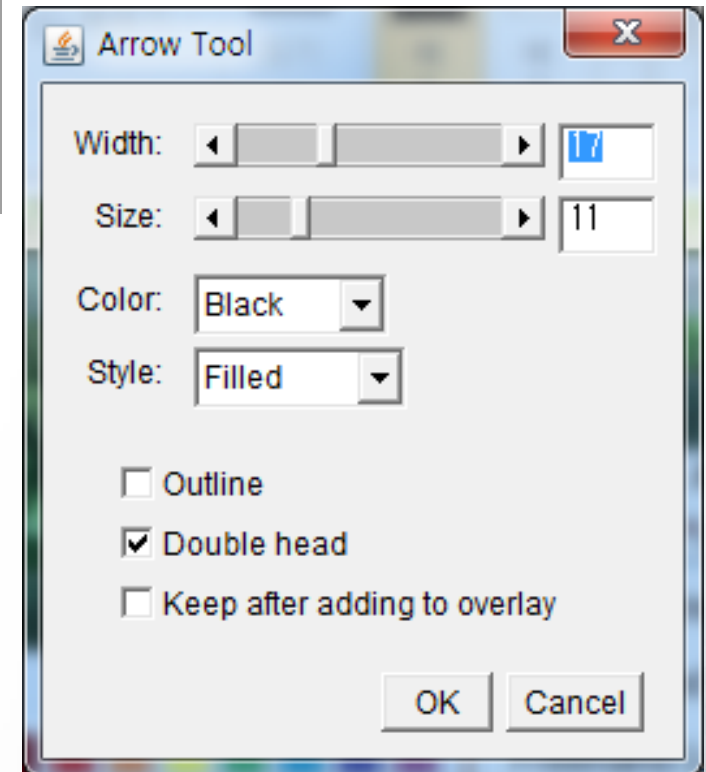
Freehand Selection



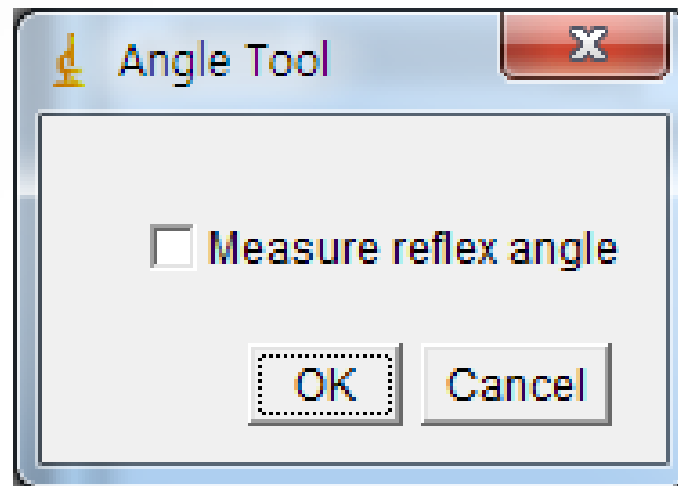
Line Selections



- ✓ Straight Line
- Segmented Line
- Freehand Line
- Arrow tool



Angle Tool

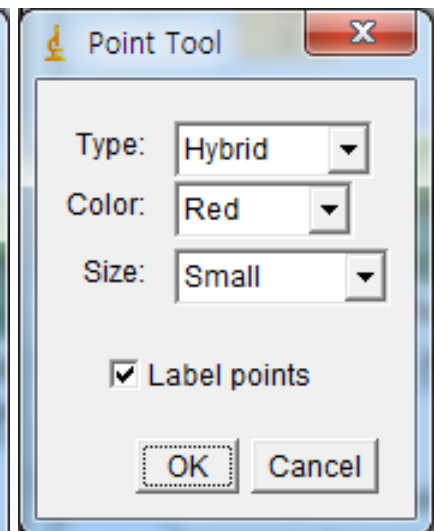
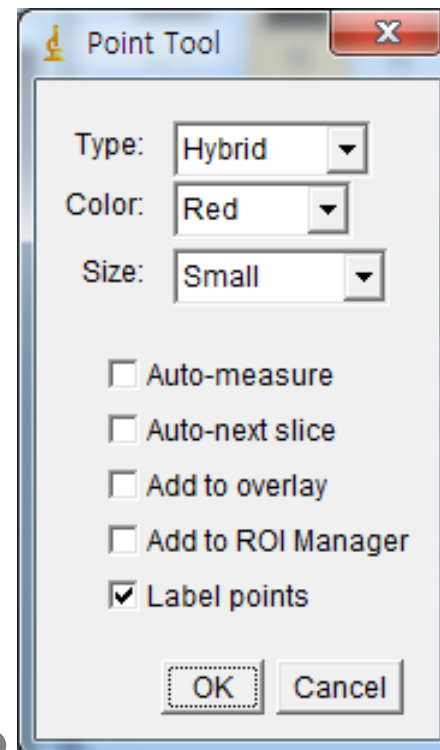
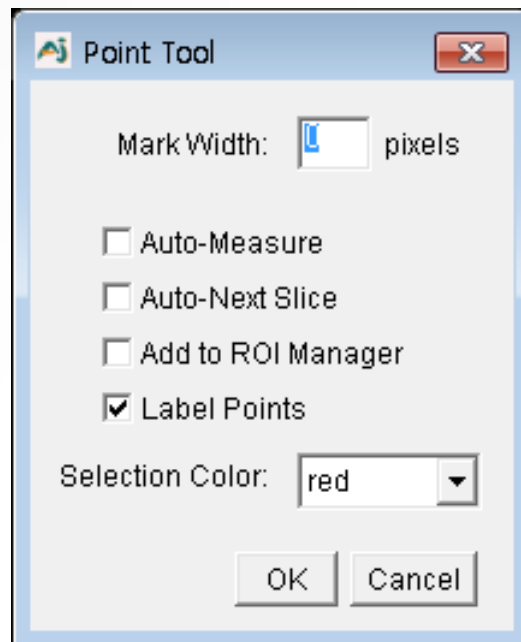


Point Tool

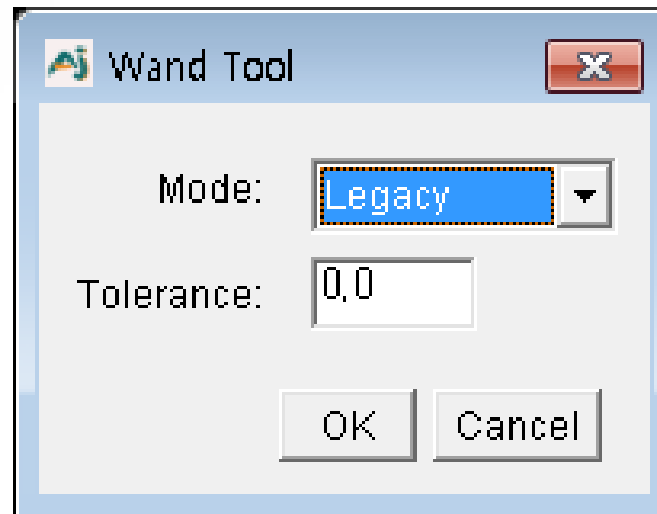
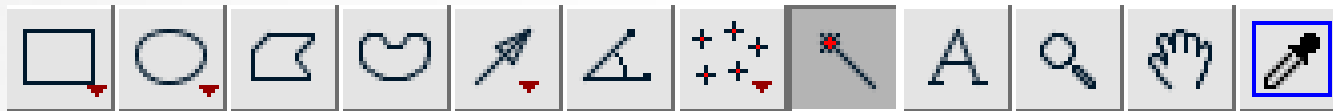


✓ Point Tool

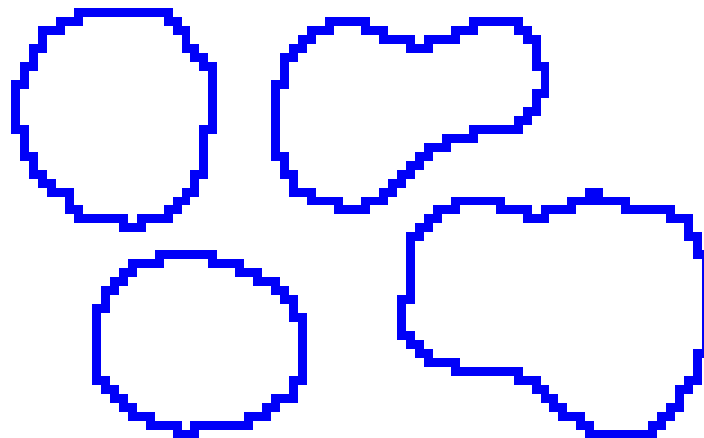
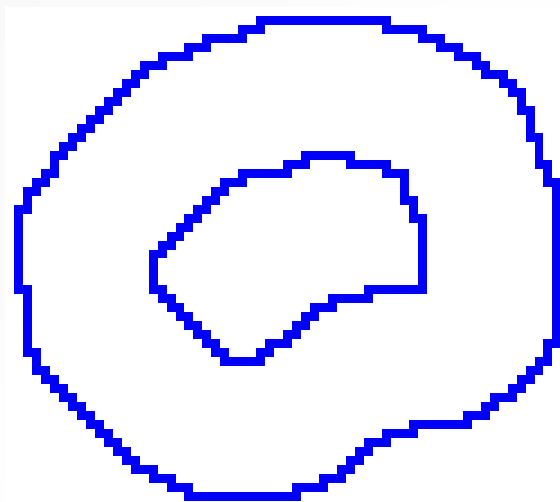
Multi-point Tool



Wand Tool



Composite ROI

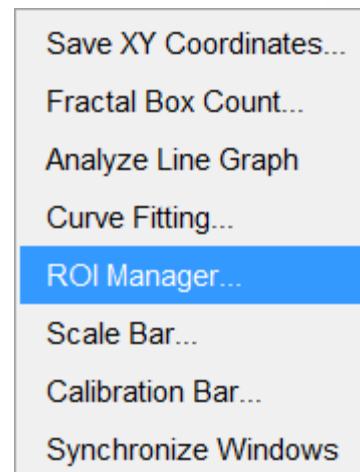
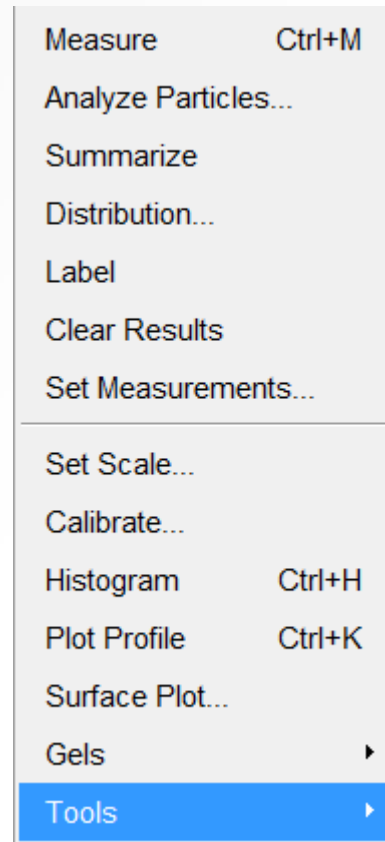


Manipulating ROI

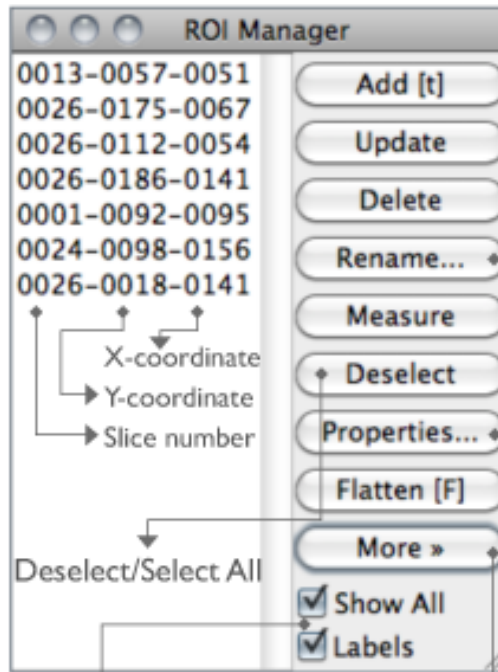
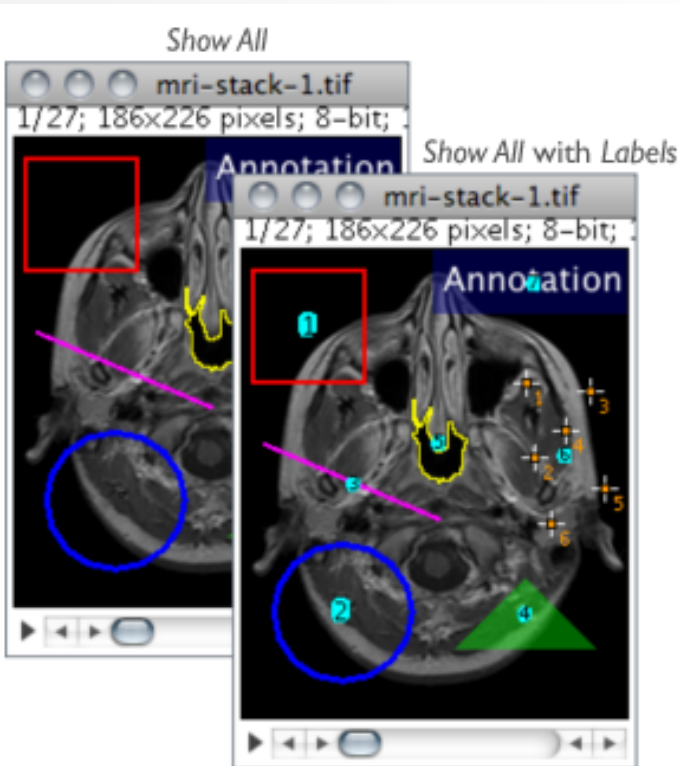
Undo	Ctrl+Z
Cut	Ctrl+X
Copy	Ctrl+C
Copy to System	
Paste	Ctrl+V
Paste Control...	
Clear	
Clear Outside	
Fill	Ctrl+F
Draw	Ctrl+D
Invert	Ctrl+Shift+I
Selection	▶
Options	▶

Select All	Ctrl+A
Select None	Ctrl+Shift+A
Restore Selection	Ctrl+Shift+E
Fit Spline	
Fit Circle	
Fit Ellipse	
Interpolate	
Convex Hull	
Make Inverse	
Create Selection	
Create Mask	
Properties...	Ctrl+Y
Scale...	
Rotate...	
Enlarge...	
Make Band...	
Specify...	
Straighten...	
To Bounding Box	
Line to Area	
Area to Line	
Image to Selection...	
Add to Manager	Ctrl+T

ROI manager

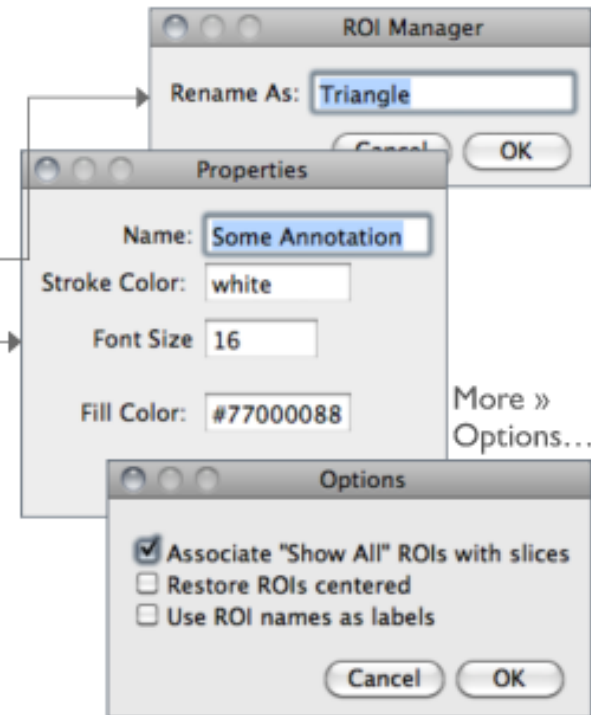


ROI manager

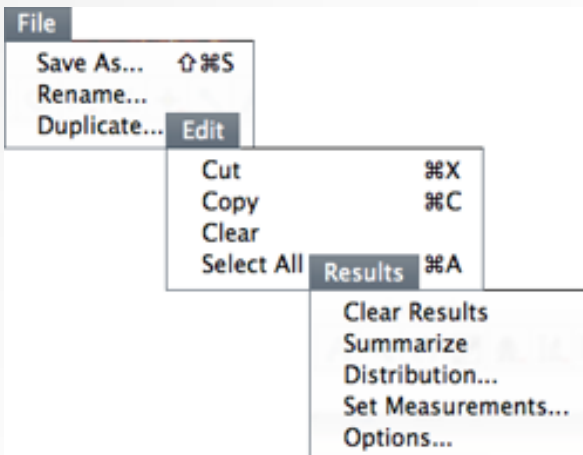


Show All with/
without labels

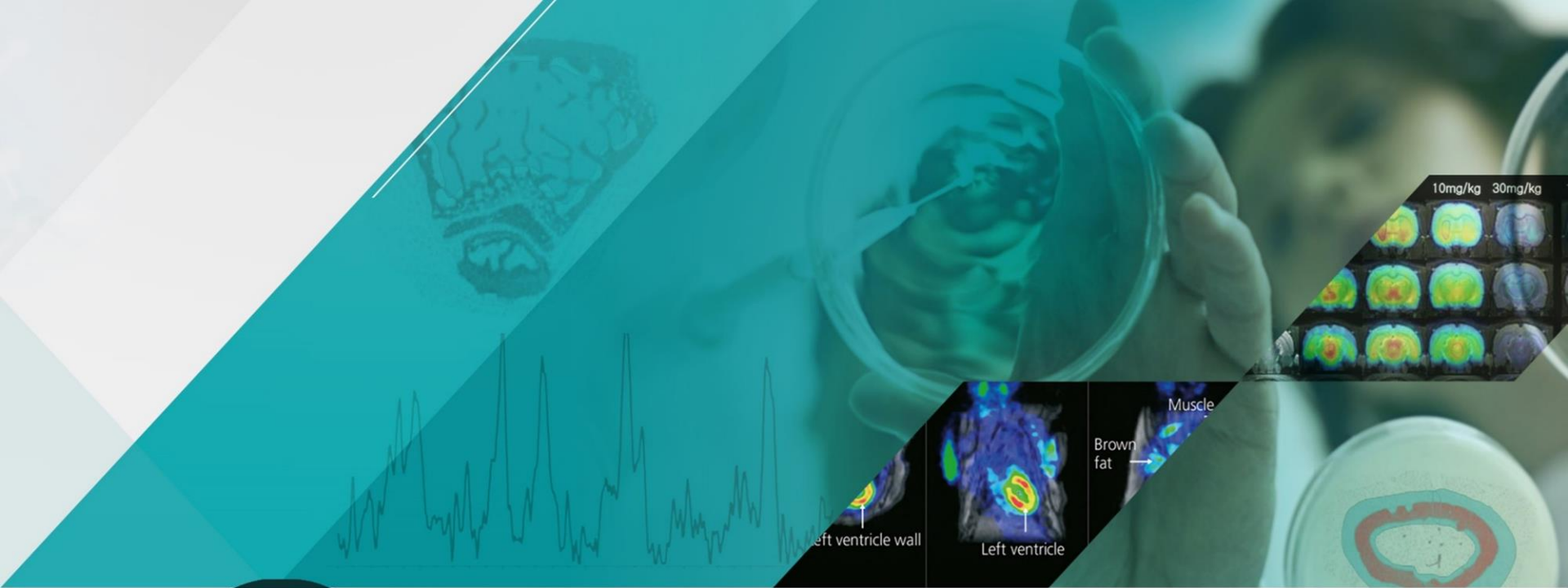
Misc. operations via drop down
menu (also available when right
clicking on list area)



Measurement



Results										
	Label	Area	Mean	StdDev	Mode	Min	Max	XM	YM	Perim.
56	blobs.gif	8.580E2	1.973E2	3.012E1	2.320E2	1.280E2	2.480E2	1.805E2	2.302E2	1.137E2
57	blobs.gif	1.310E2	1.885E2	3.082E1	2.160E2	1.280E2	2.320E2	1.385E2	2.337E2	6.277E1
58	blobs.gif	2.863E1	2.160E2	2.863E1	2.160E2	1.280E2	2.240E2	4.654E1	2.410E2	5.453E1
59	blobs.gif	4.619E0	1.280E2	4.619E0	1.280E2	1.280E2	1.360E2	7.683E1	2.428E2	5.657E0
60	blobs.gif	0.000E0	1.280E2	0.000E0	1.280E2	1.280E2	1.280E2	1.105E2	2.465E2	2.828E0
61	blobs.gif	3.468E1	1.280E2	3.468E1	1.280E2	1.280E2	2.480E2	1.790E2	2.518E2	4.238E1
62	blobs.gif	2.560E1	1.840E2	2.560E1	1.840E2	1.280E2	2.160E2	1.280E2	2.519E2	4.956E1
63	blobs.gif	3.880E1	1.360E2	3.880E1	1.360E2	1.280E2	2.480E2	2.348E2	2.522E2	3.556E1
64	blobs.gif	2.874E1	1.760E2	2.874E1	1.760E2	1.280E2	2.240E2	7.417E1	2.525E2	3.673E1



Thank you