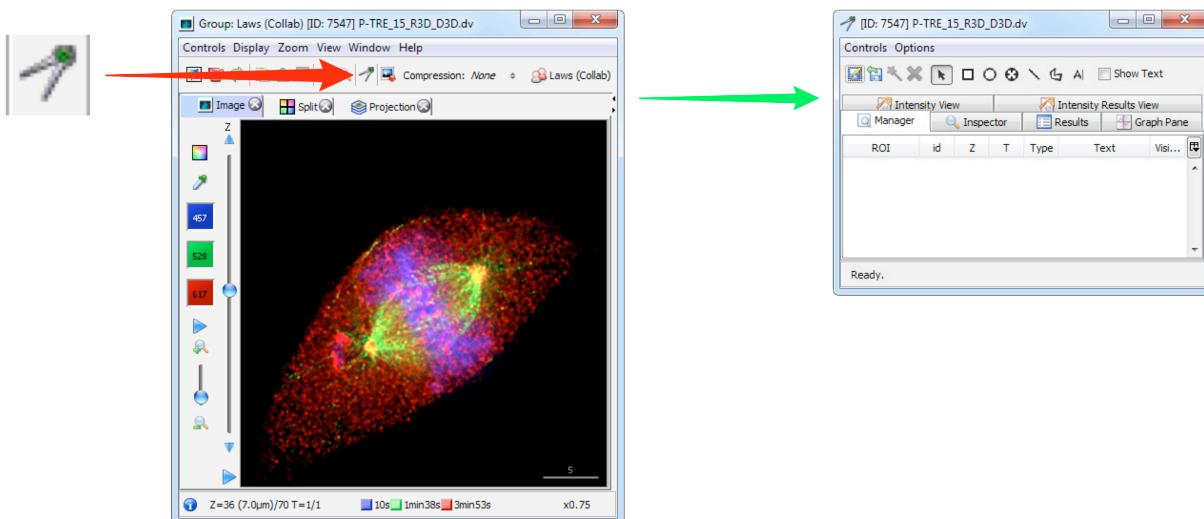


# Using ROIs and the Measurement Tool

Using the measurement tool in OMERO.insight to draw **Regions of Interest** (ROIs) and undertake analysis.

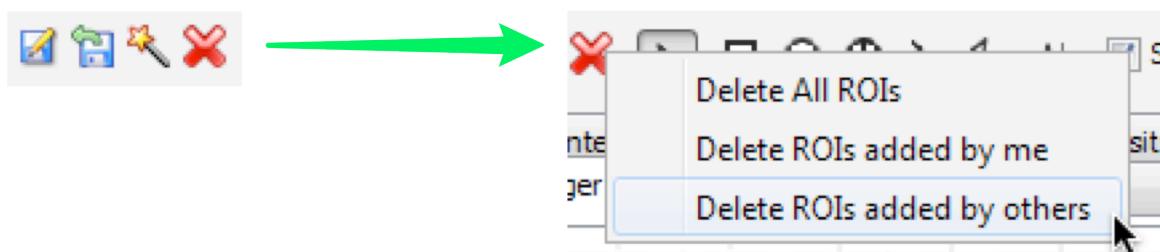
- 1 Open the image in the **Image Viewer** and click on the **Measuring Tools** icon to open the tools palette.



- 2 To draw or manipulate ROIs, click on the buttons in the palette tool bar (left to right):
  - ROI selector;
  - draw rectangle;
  - draw ellipse;
  - draw point;
  - draw line;
  - draw polygon;
  - add a text ROI;
  - show/hide text.



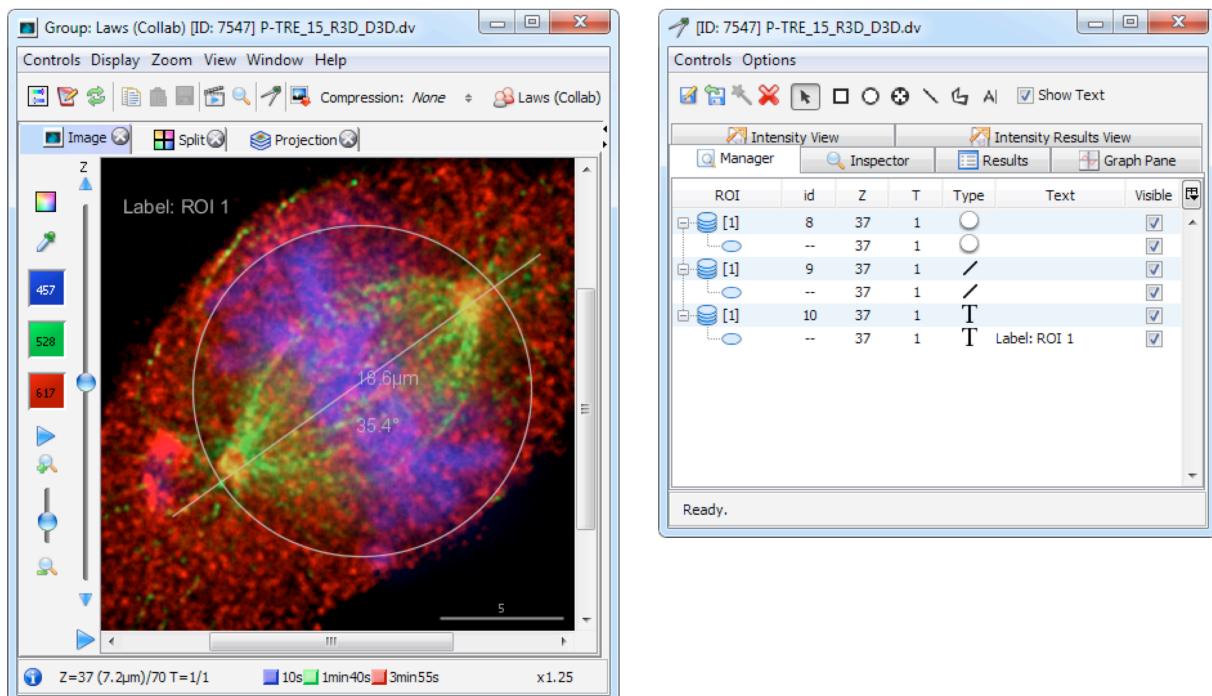
- 3 Other buttons in the tool bar of the tools palette are (left to right):
  - save ROIs (once created);
  - load ROIs from saved file;
  - open the ROI assistant;
  - delete ROIs (click gives options).



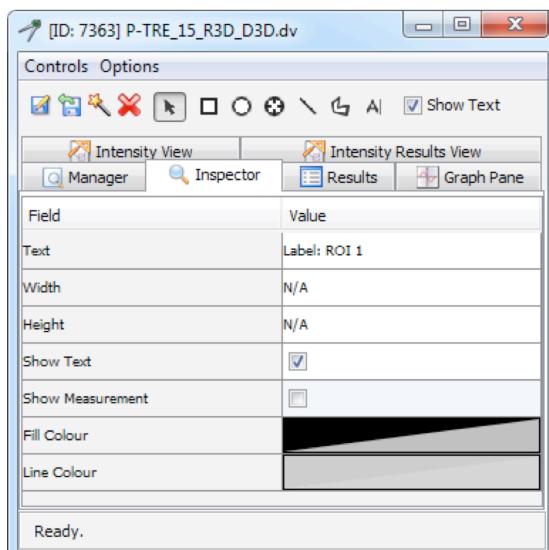
**4** Details of ROIs are viewed in the **Manager** tab of the tools palette.

The columns show:

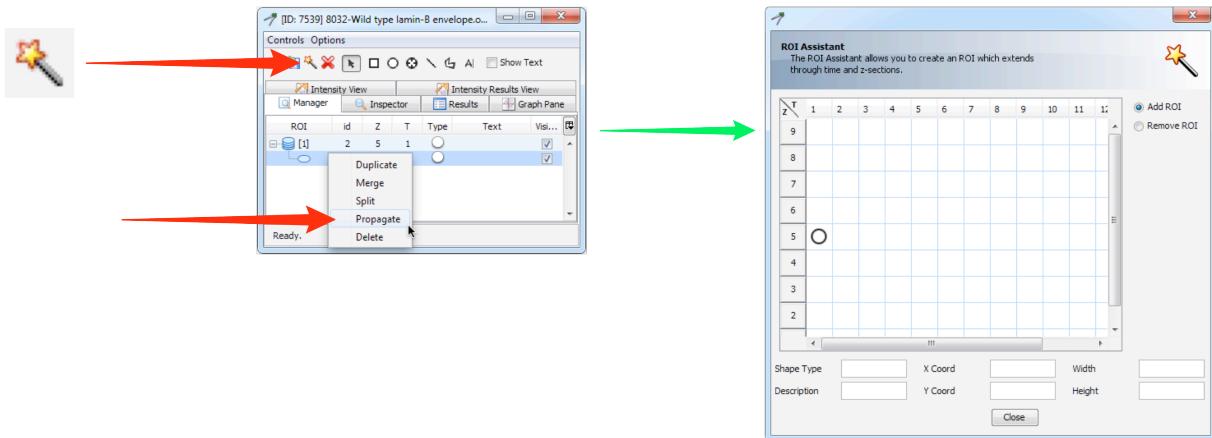
- ID of the ROI;
- Z section/s and time point/s the ROI is drawn on;
- ROI type;
- text associated with the ROI;
- check box to toggle the visibility of the ROI.



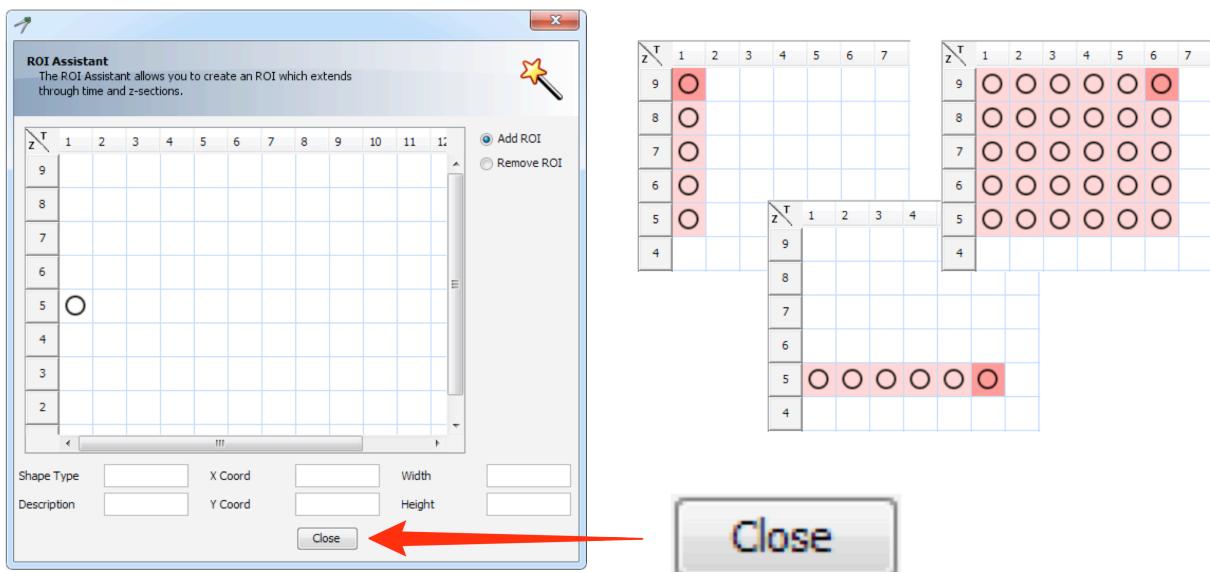
**5** Select an ROI and click on the **Inspector** tab to view and edit the text label, dimensions, fill and line colour, and toggle the visibility of the text and measurements on and off.



- 6** Select an ROI in the **Manager** tab and click on **ROI Assistant** button in the toolbar to propagate an ROI through the Z stack or time sequence; or right click on an ROI and select **Propagate**.

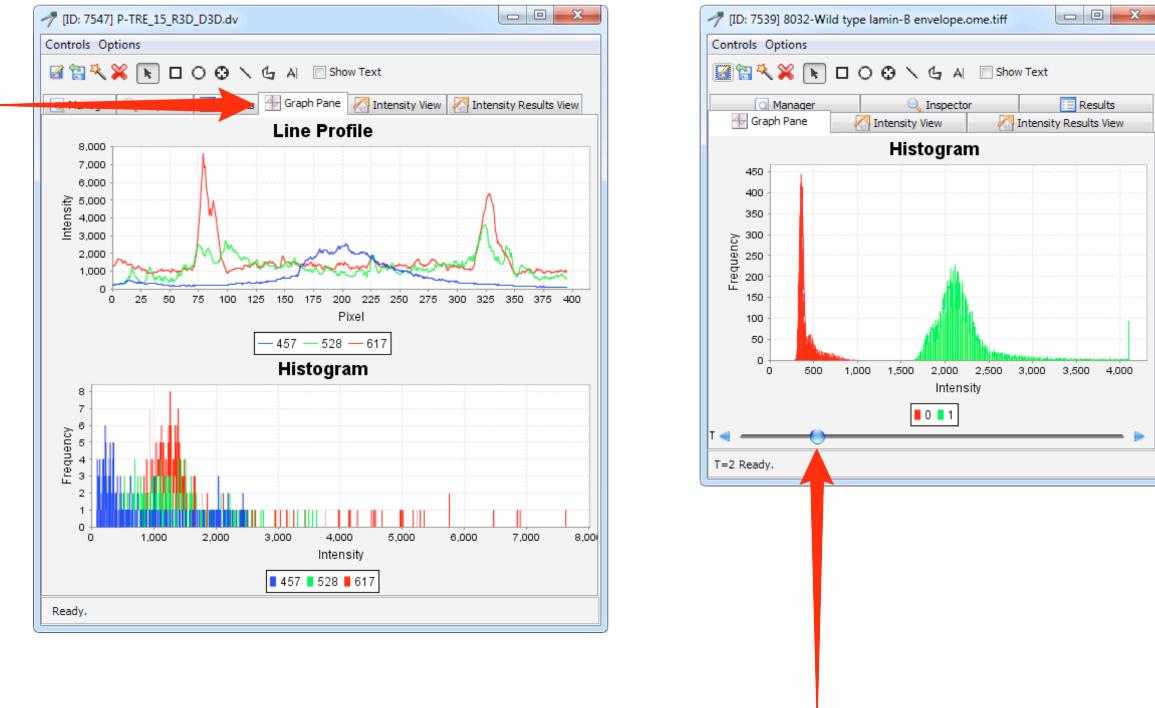


- 7** In the **ROI Assistant** window, click on the ROI and drag it. Up or down propagates through the Z stack and left or right through the time sequence (T). Dragging diagonally will propagate the ROI through both Z stack and time sequence. Click **Close** to return to the ROI palette.



8

- Click on the **Graph Pane** tab to show a plot of the channel intensities for an ROI. A line ROI has a profile of intensities along the line and a histogram of intensity vs. frequency (data for other types of ROI vary). If an ROI is propagated across a time sequence, the slider below the histogram allows stepping through the sequence.



9

- Click on the **Intensity View** and **Intensity Results View** tabs to see tables of intensity values for the ROI. These values can be exported in Excel spread sheet format for further analysis.

