UE : BIOMED

Spot detection in cells

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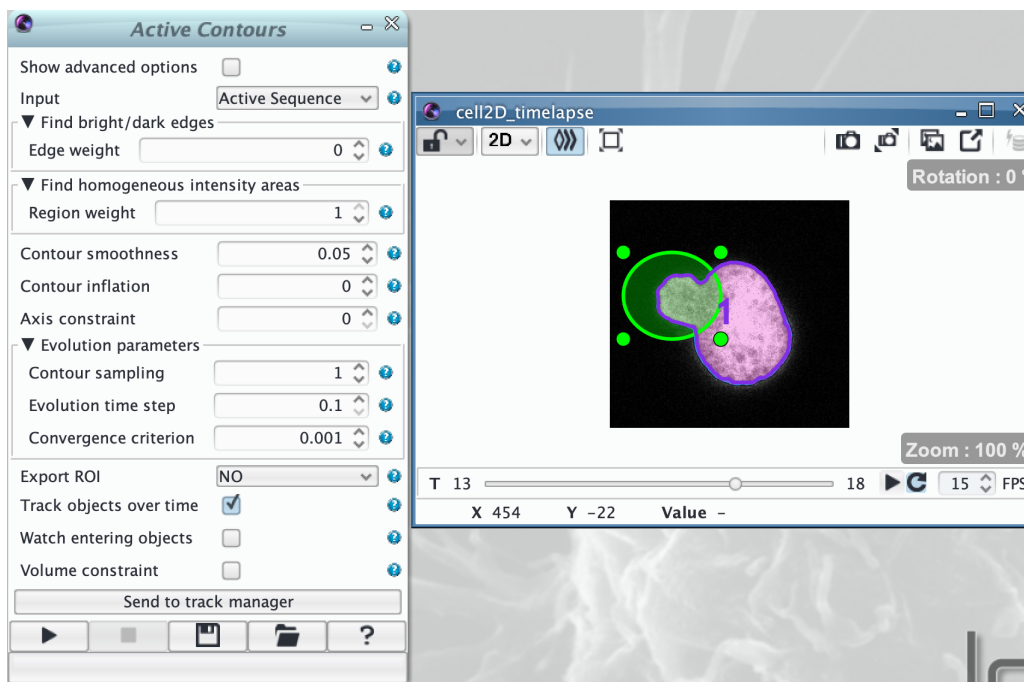10 February 2024

Contents

1 Image: cell2D_timelapse

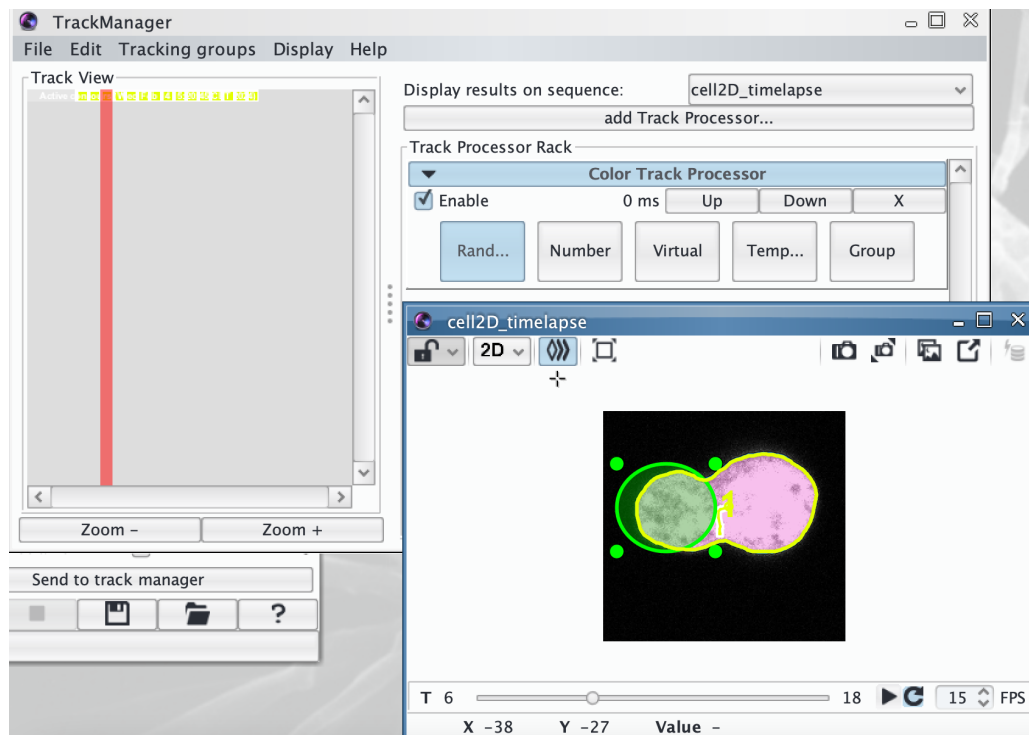## 1.1 Segment and track the cell

First, I try to use "Edge detection" for edge detection by the Deriche method.
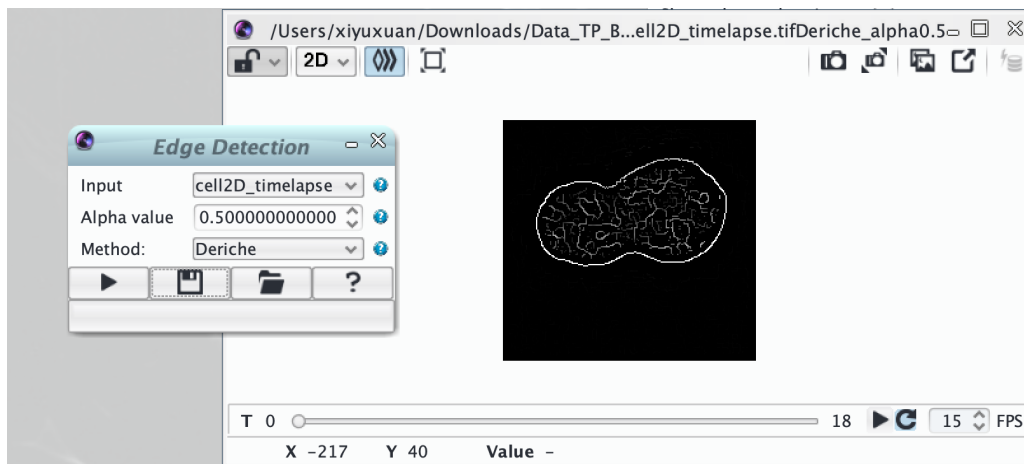
And then, I use the "Active Contour" to segment the cell.

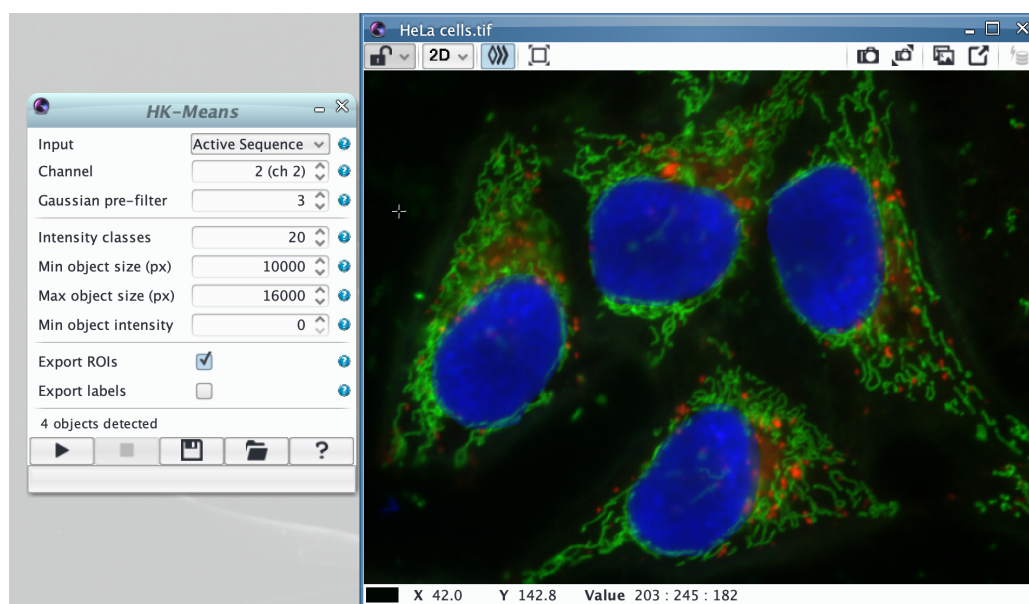On this basis, I check tracking through "Send to track manager".

1.2   Could you show the photobleaching effect?
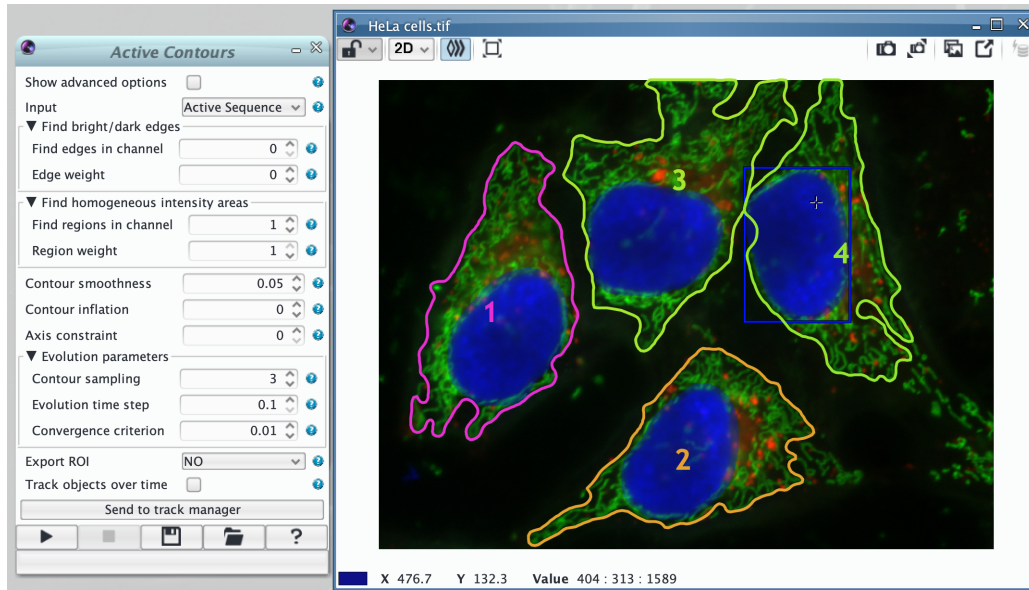
2   Image: Hela cells

Compute the number of spots in each cell

2.1   Detect the cells

First, I use "HK-Means" to segment nuleus in blue channel.

And then, I run "Active Contours".

2.2 Detect the spot

To detect the spot, I use "Spot Detector". I choose the red channel and turn to the binary image to detect the spot.