

# Comparing Drug Effects on a Breast Cancer Case

Supplementary Material to

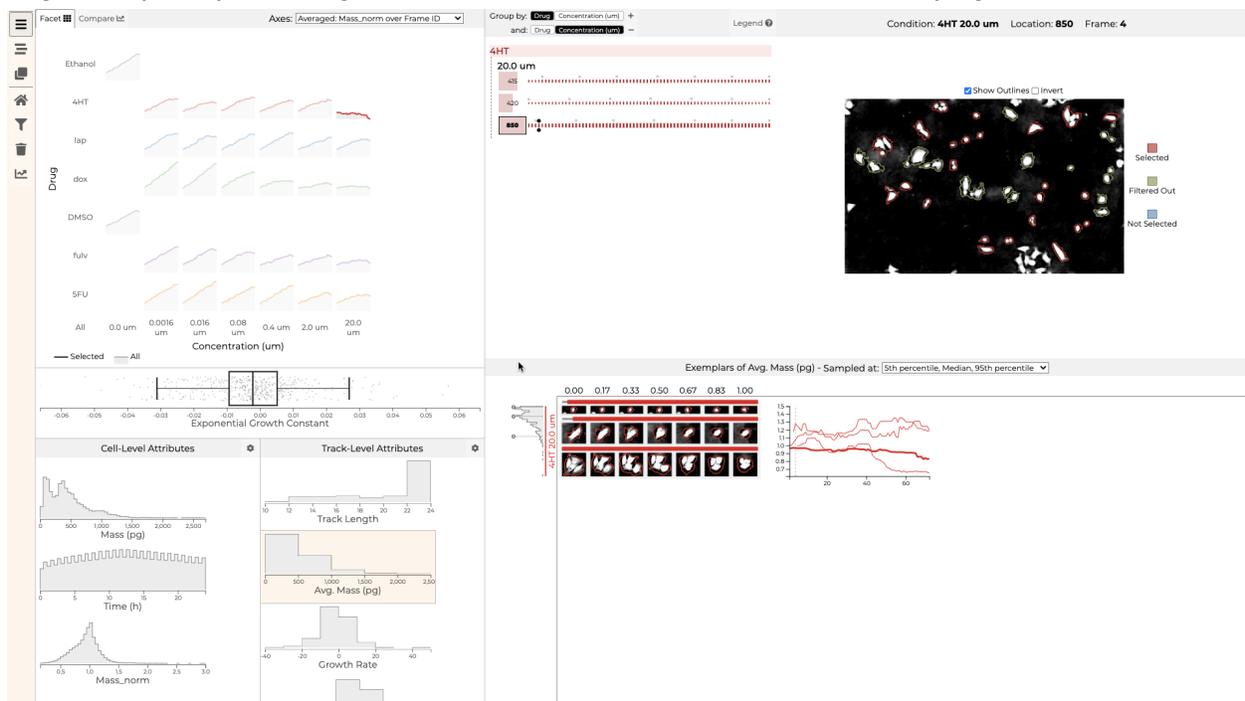
Loon: Using Exemplars to Visualize Large Scale Microscopy Data

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In the following, we reproduce the case study about the breast cancer dataset analysis step by step.

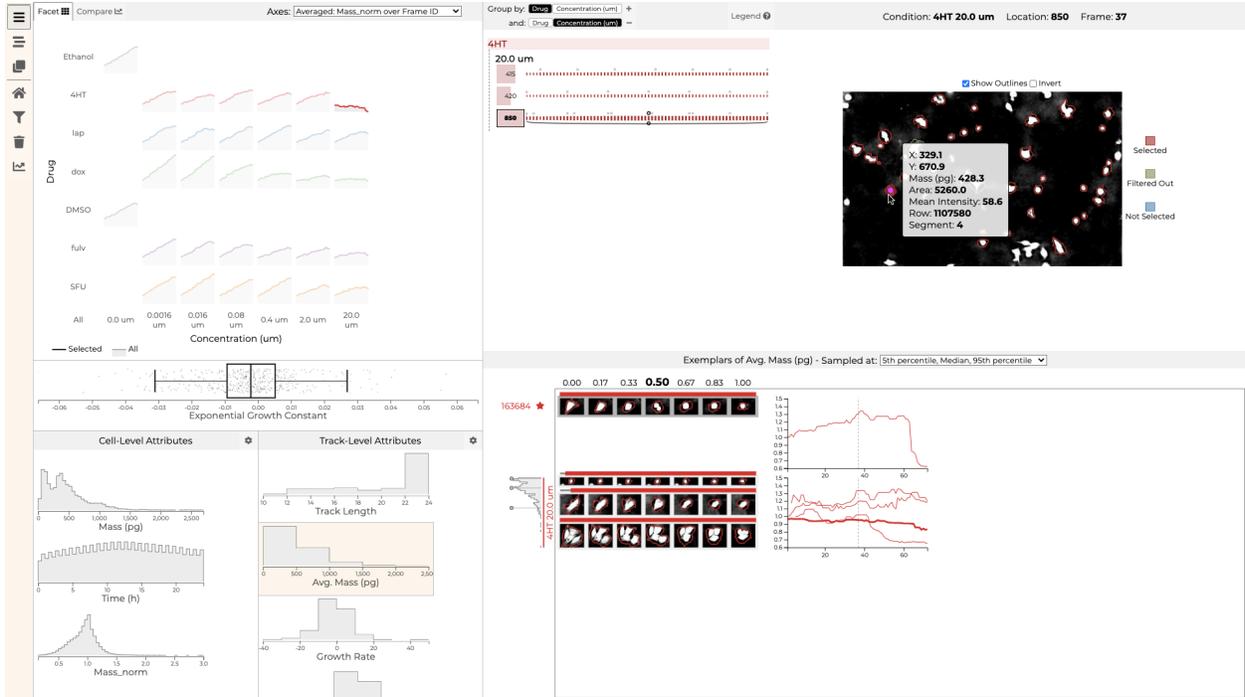
## Filter to 4HT at 20 micromolars

Begin analysis by selecting specific condition where cells appear to be dying.



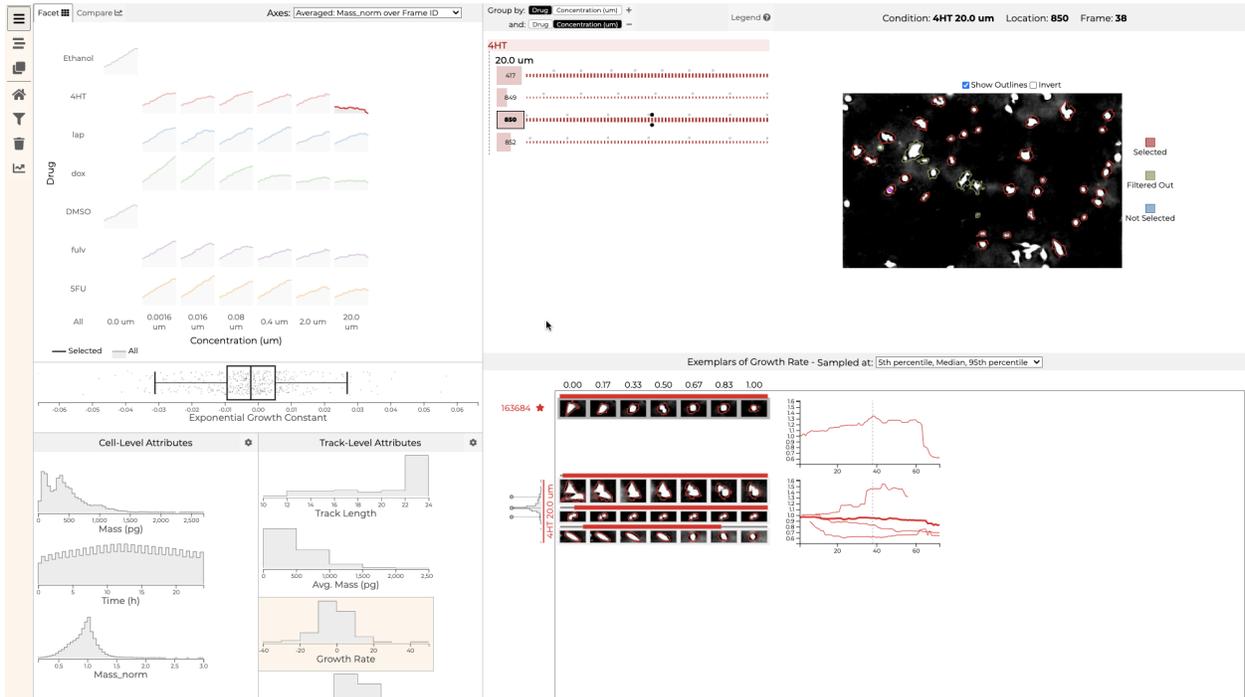
## Bookmark dying cell

Notice a cell that appears to be dying in the image view. Bookmarking reveals that its mass does decline sharply at the end of the experiment



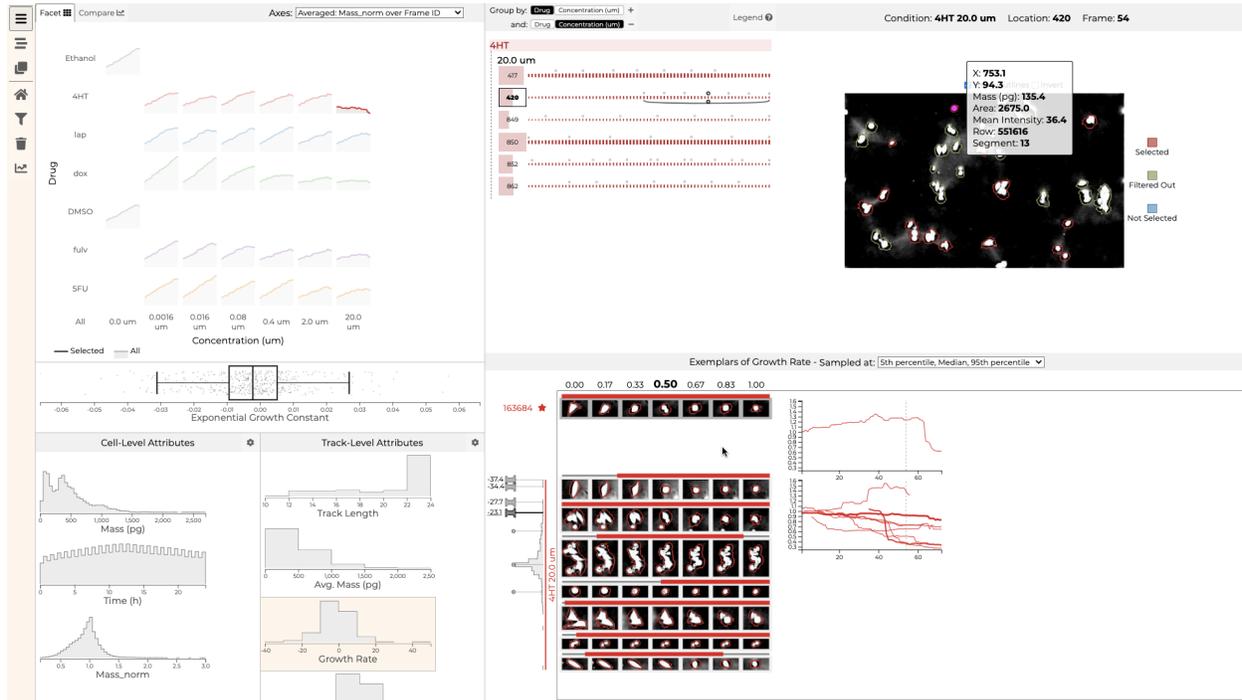
Sample exemplars by the growth rate

Changing how exemplars are selected shows new tracks that show cells growing or declining in mass.



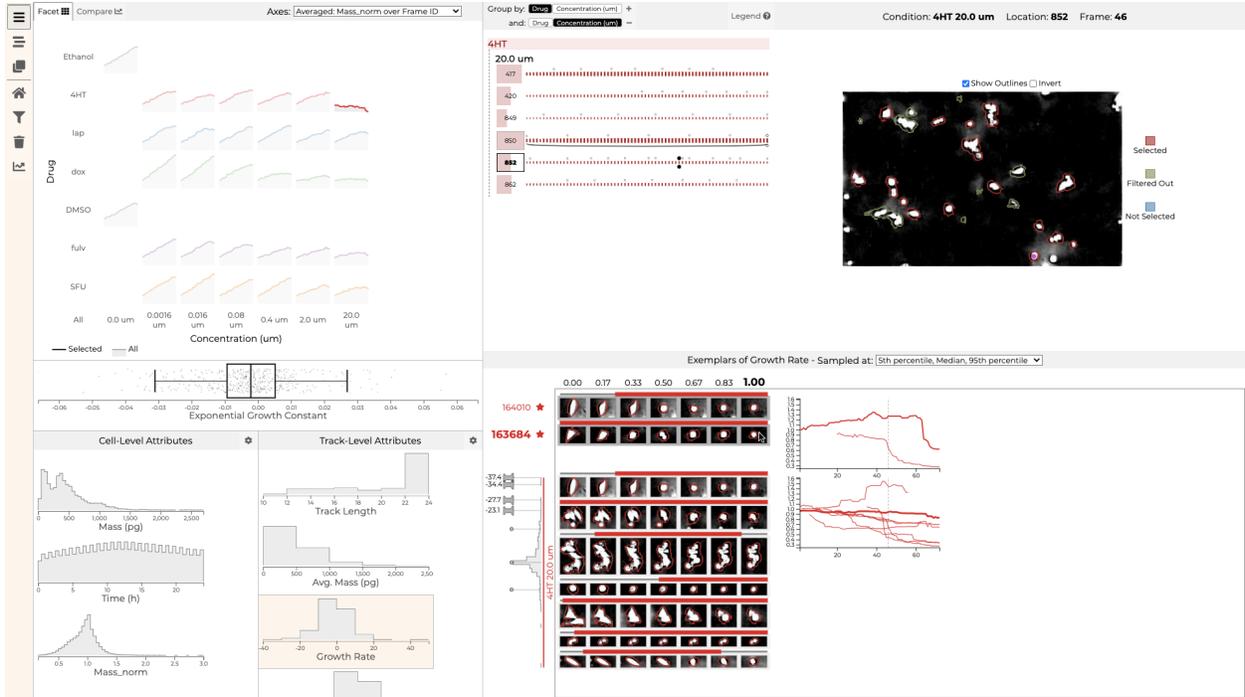
## Add manual pin values

Clicking in the distribution brings in additional dying cells here.



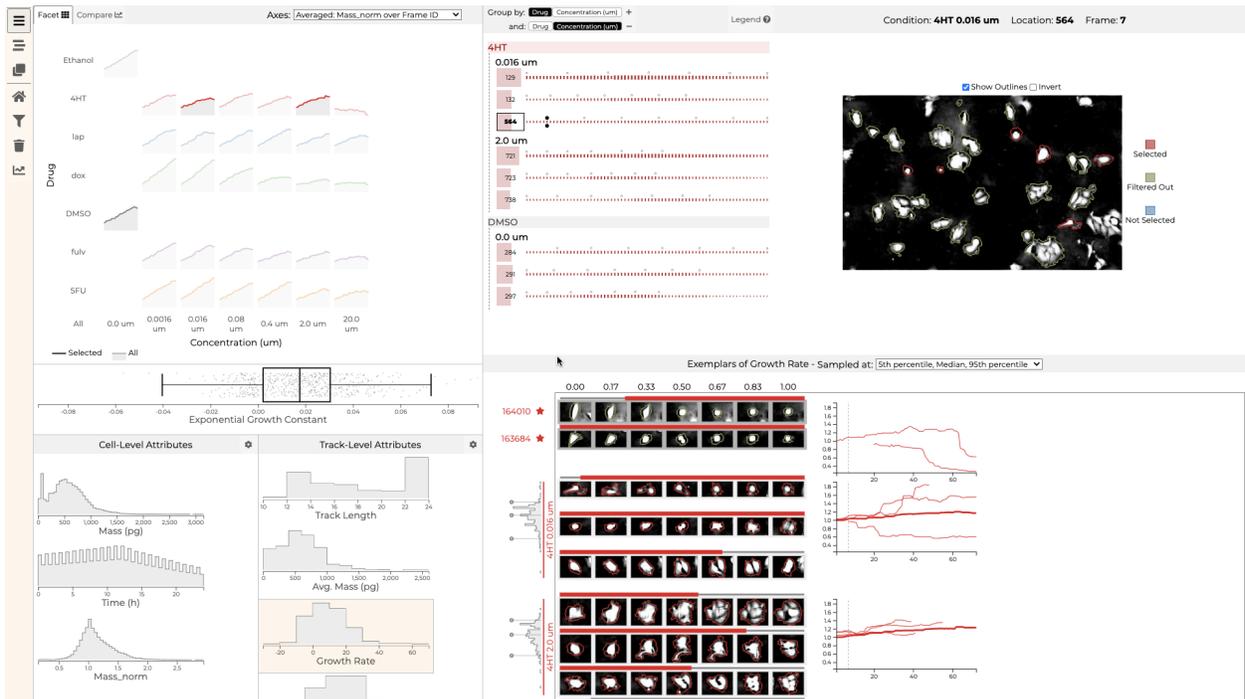
## Bookmark another dying cell

Bookmarking another cell makes it easier to view its declining mass, and keep tabs on it for the future.



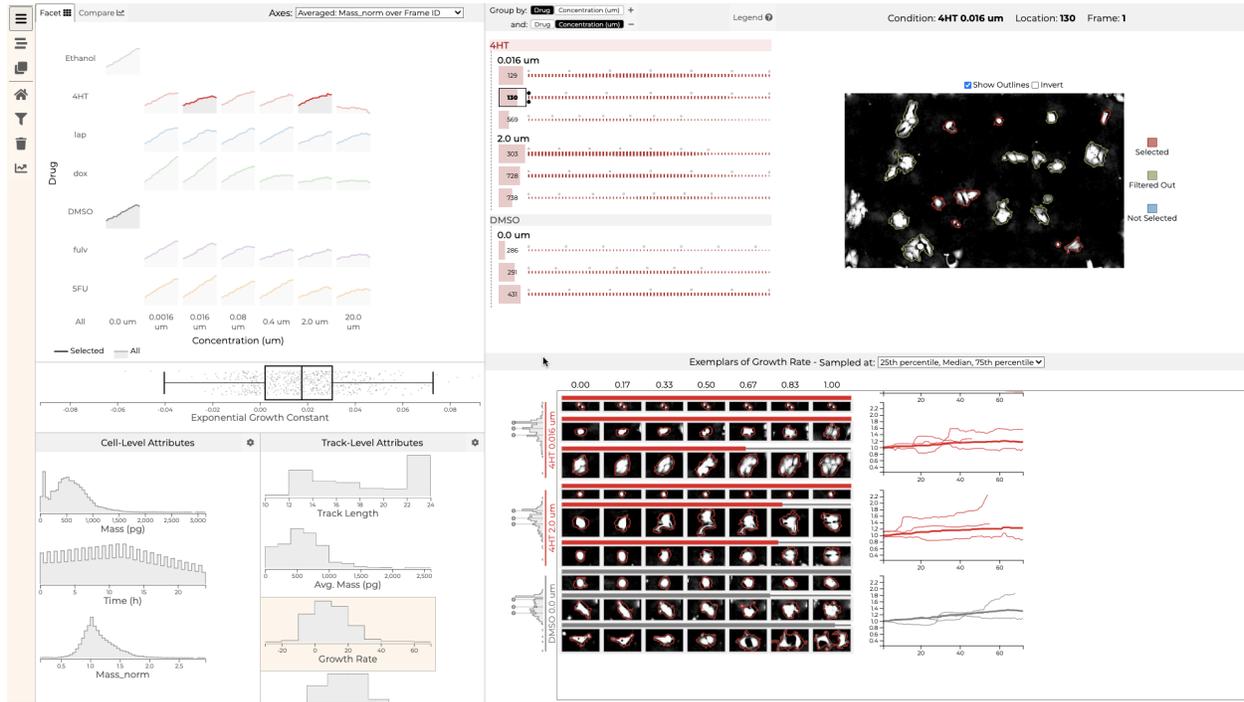
## New Conditions

Select conditions with less decline in overall growth rate as a control to view heterogeneity in these groups.



# Compare histograms

View the three condition's histogram to compare distribution shape.



# More samples, manual and automatic

Change the automatic sampling strategy and add more manual pins to look for more dying cells.

