Plot Cell Lineage

The cell lineage supports statistical analysis of the cells like for example, the number of descendant generations of a cell, the length of the cell cycle, when it divided or died. The Cell Tracker has the ability to plot 2 kinds of lineage trees (see figures below): (1) the first one is the regular lineage tree that shows the mitosis events and the cell cycle. (2) The second one is for plotting cell or colony fusion or merging. When the user checks the enable fusion checkbox, a cell fusion lineage tree is built by the Lineage Mapper that shows the fusion tree as the reverse from the division lineage tree. That tree shows multiple cells or colonies that fused together at a time t and created a new group of cells or colonies at time t+1.The **Plot Division Lineage** and **Plot Fusion Lineage** buttons allow visualization of cell lineages.

Cell Numbers to Plot input parameter allows all of the data or only specific cell data to be plotted. The syntax for specifying specific frames to be tracked is a comma separated list. A colon can also be used to specify a range of cells. For example "1:2:80" plot every other cell from 1 to 80. "9:120" plot every cell from 9 to 120. "1,5,20,28:50" plot cells 1, 5, 20 and 28 to 50