Flow Post-its
Kathy Daniels

Pulse Processing & Singlet Gating

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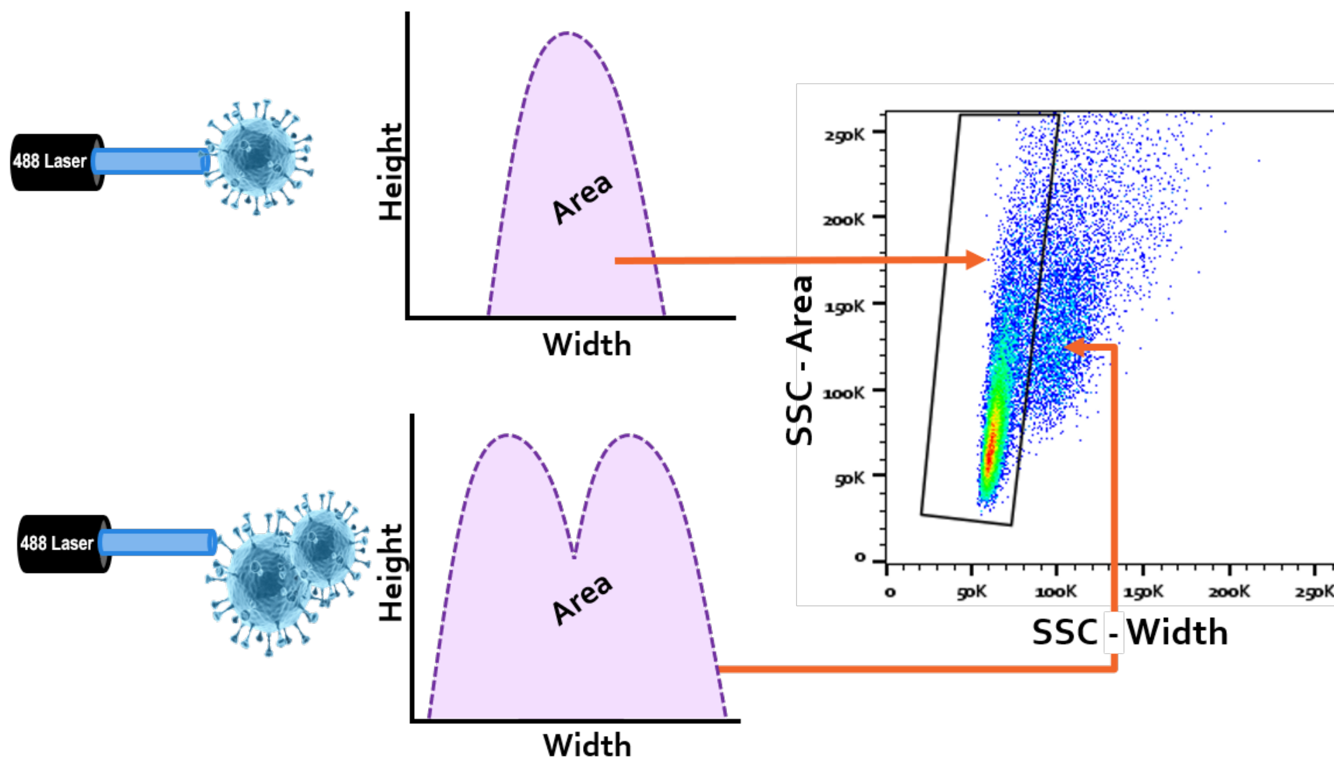
Flow cytometry is a powerful tool for analysis of **single cell data**. Even with optimized sample preparation conditions, cellular aggregates will be present. Utilizing the **pulse processing** and signal output that occurs as the cells are acquired at a cytometer, these **aggregates of cells can be gated out** to ensure a more robust analysis.



Voltage Pulses Explained

Height: As a cell or particle passes through a laser, the height of the pulse generated is the peak of the light emitted.

Width: The time it takes for a cell or particle to pass through the laser beam.

Area: The integration of the width and the height signal generated as the cell or particle passes through the laser. This is equivalent to the total amount of fluorescence in the cell

For most applications, a successful flow cytometry experiment relies on the confidence that we are analyzing single cell data. Forward or side scatter height vs area, area vs width or height vs. width bivariate plots can be used to gate out aggregates of cells, as shown above. For special applications, such as cell cycle or ploidy analysis, the same technique can be used with the voltage pulses generated for fluorescence signal, such as DAPI or PI.