**PDQ Template**

**FAS:**

**Customer Institution:**

**Customer name:**

**Date PDQ completed:**

**Demo date:**

PDQ GOALS:

* Understand customer *needs:*
* *Set the right expectations,* explain the *system trade offs*
* *Select 1-3 key, proof-of-concept experiments.*
* *Understand the experimental design (sample preparation, concentration, fluorescent reagents, timing!) and the customer workflow.*
* *Understand the customer criteria for successful results from demonstration.*

**1. Demo:**

1.1 Single cell

1.2 Bulk sorting

**2. Downstream Cell Application:**

**3. Sample:**

3.1 Source (such as blood or cell culture):

3.2 Pre-Enrichment steps (e.g. magnetic beads):

3.3 Can the cells pass through a 37-micron mesh:

3.4 Are the cells sticky or clumpy:

3.5 Are the cells mechanically sensitive or have low viability:

3.6 Percentage target population:

3.7 Desired cell concentration in sample:

*• We achieve better purity with concentrations below 250,000 cells per mL.*

3.8 Bulk sorting: How many cells do you want to collect after sorting?

3.9 Single Cell sorting: How many plates do you want to collect after sorting?

3.10 Do you have a plate imager for monoclonality assessment?

3.11 Number of samples (including controls):

• *Please keep in mind the need for positive and negative staining controls.*

3.12 Other notes

**4. Sorting Strategy:**

*• Apart from Forward- and Back-scatter detection (Back-scatter is similar to side-scatter in revealing internal complexity of particles), the WOLF has a 488 nm laser and 3 emission filters:*

*FL-1: 500-550 nm*

*FL-2: 565-605 nm*

*FL-3: 665 nm and above (longpass)*

4.1 FL-1 fluorochromes/dyes:

4.2 FL-2 fluorochromes/dyes:

4.3 FL-3 fluorochromes/dyes:

4.4 Compensation needed:

*• Please keep in mind the need for controls: unlabeled or single-labeled cells may be required to define signal-to-noise and spillover.*

4.5. Have you successfully sorted similar samples in the past?

4.6. Which instrument?

4.7. Was the sort successful?

4.8. Do you want to put the instrument inside a TC hood?

**5. Success evaluation:**

5.1 Purity

5. 2 Single cell deposition rate

5. 3 Colony outgrowth