**Name:**

**Lab:**

**E-mail:**

**Phone:**

This document will help you define your ImageStream evaluation experiment and help us guide your sample preparation and produce satisfying results.

The ***ImageStreamX*** is a high resolution high speed automated microscope that numerically quantifies cellular morphology and the intensity, location and co-location of fluorescent probes within tens of thousands of cells per sample. The ImageStream system can be equipped with 20x, 40x and 60x objectives to accommodate a wide range of microscopy experiments. It can also be equipped with optics that image the entire cell simultaneously in focus for accurate spot counting. This technology thus provides a wide range of objective and statistically robust microscopy applications. Please answer the following questions related to the experiment you plan to try on the instrument.

**The type of application I wish to try (x all that apply):**

|  |  |
| --- | --- |
|  | Translocation of signaling molecules |
|  | Molecular co-localization |
|  | Internalization / Phagocytosis |
|  | Sub-cellular localization / Clustering |
|  | Conjugate analysis / Cell fusion |
|  | Apoptosis / Necrosis |
|  | Autophagy |
|  | Morphology-based cell classification |
|  | Shape change |
|  | Spot counting |
|  | Cell cycle / Mitosis |
|  | Flow confirmation / Artifact rejection |
|  | Other (please describe): |

**These ImageStream features are important for my application (x all that apply):**

|  |  |
| --- | --- |
|  | Numerical quantitation of imagery |
|  | Automated image collection |
|  | Large sample sizes and population statistics |
|  | Rare event analysis by microscopy |
|  | Other (please describe): |

**Briefly describe the purpose of the experiment and expected results:**

|  |
| --- |
|  |

**Why is this application difficult to do with existing technologies I have access to?**

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| --- |
|  |

**Experimental details:**

|  |
| --- |
| **Cell Type**: |
| **Markers, dyes, probes to be used**: |
| **Have you used those probes before**? |
| **Number of samples**: |
| **Expected number of cells per sample**: |
| **Expected frequency of rarest cell of interest**: |
| **Biologic positive control**: |
| **Biologic negative control**: |