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Office of Technology Management

FIVTOOLS: SOFTWARE SUITE FOR SINGLE-CELL AND MICRO-RAFT IMAGING

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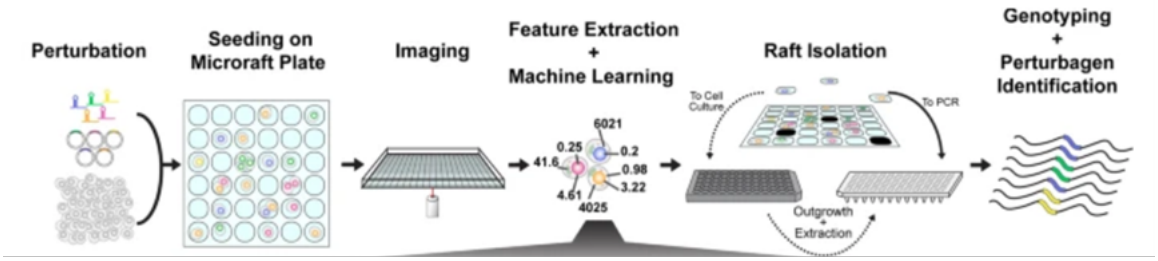
Value Proposition: *Software that can be used to distinguish between live and dead cells while allowing for the resorting of living cells.*

Technology Description

Researchers at Washington University in St. Louis have developed a software suite that enables single-cell and micro-raft imaging workflows. Named FIVTools, this software can “learn” notable features and automatically highlight features of interest. In addition, the software can be integrated with high throughput cell sorting (“Morph-and-Sort”), can calibrate raft plates, and is able to register images at different scales on-the-fly. This permits downstream applications to carry out further analysis of the cells of interest from the initial screen and allows the researcher to study “novel” features by permitting physical observation of visible phenotypes.



Stage of Research

Mature software suite

Applications

- Supports and enables single cell and micro-raft imaging workflows for cell sorting

Key Advantages

- Distinguishes live and dead cells and allows for the resorting of living cells
- Can reconstruct an image at higher resolutions, which permits finer analysis of organelle or smaller sized cellular component
- Able to register images at different scales, and on-the-fly
- Manipulates visible phenotypes through integration with high throughput cell sorting
- Can “learn” notable features and automatically highlight features of interest, significantly enhancing the functionality of the data output of research experiments

Related Web Links – William Buchser Profile