

High-Throughput Calcium and Contractility Upgrade



50-fold increase in calcium and contractility throughput

Repeated measures and automated cell finding/recording

Upgrade option for existing IonOptix systems

MultiCell Lite

The isolated cardiac myocyte represents the smallest fully functional model system of heart muscle. Our Calcium and Contractility system has long been the gold standard of functional characterization of isolated adult heart cells for years but is limited by its slow rate of data collection. Now, with the new MultiCell Lite high-throughput C&C system, 50 times more cells can be acquired and analyzed in the same amount of time, resulting in higher statistical power and confidence in data, increased efficiency, and ultimately lowered costs for researchers, at a more affordable price than the full MultiCell system.

The MultiCell Lite system includes both an x-y-z position-programmable scanning microscope stage that will scan a field of isolated cardiac myocytes and mark their positions for repeated measures, as well as a novel image analysis method to quantify position, size, orientation and dynamic characteristics of contraction-relaxation function for all isolated cardiac myocytes within the field of view, in serial measurements.

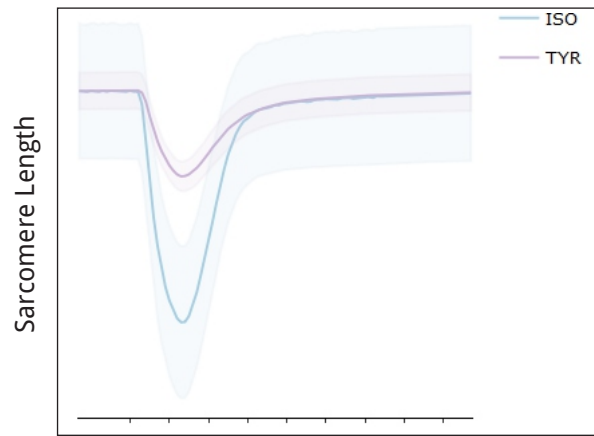
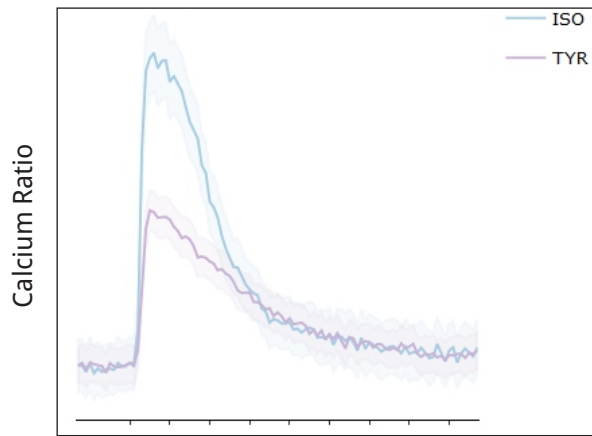
Designed to work with a variety of microscope types, the MultiCell Lite is also available as an upgrade to existing IonOptix Calcium and Contractility systems for those looking to measure from many more cells with repeated measures and automated cell recording for an affordable price.

Features

- Mark-and-find for fast location and identification of cells
- Digital cell rotation
- Compatible with several inverted microscopes
- 50-fold increase in throughput over regular C&C system
- Automated cell finding and data recording

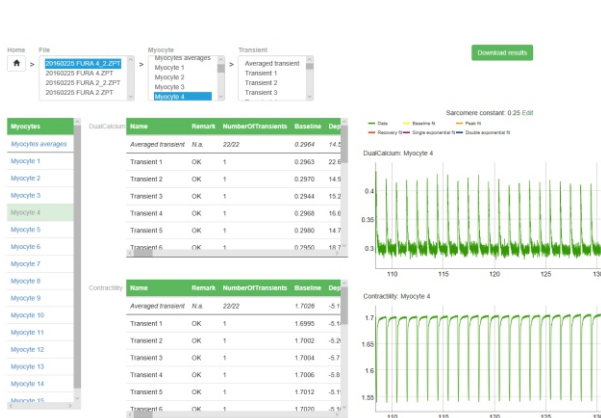
Harness the statistical power of fast, repeated measurements

Below: calcium and sarcomere shortening measured in 50 cells before and after addition of isoproterenol, taking a total of 30 minutes with the automated cell finder.

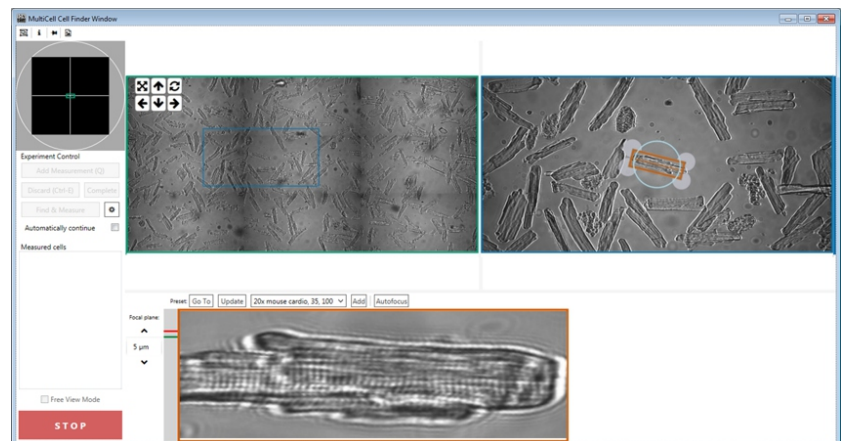


Better, faster analysis

- Fast batch analysis with automated transient marking and rejection
- Double exponential fit of calcium reuptake curve for improved reliability and accuracy
- Metadata collection for cell tracking and simplified analysis



MultiCell cloud-based batch transient analysis tool



MultiCell myocyte mark-and-find window with digital cell rotation and autofocus