



INSTITUTE FOR RESEARCH IN BIOMEDICINE

High Content Imaging Workshop

Interfacing Screening and Image Processing

- How to estimate the number of cells required to produce a statistically relevant fluorescence microscopy experiment?
- How to acquire only relevant cells & optimize the acquisition workflow?
- How to analyze large amount of data?

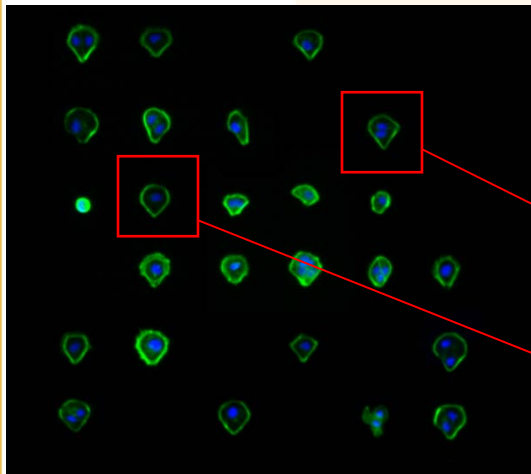
The workshop will demonstrate the cutting edge tools available at IRB that help to address these questions

Tuesday
November 30
2010

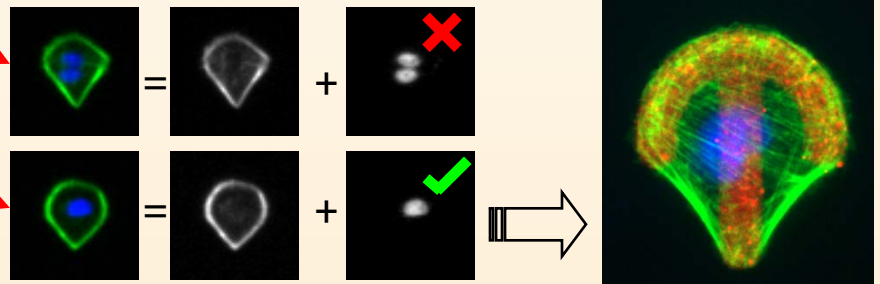
- Starting at 10am -

High Content Imaging (HCI) increasingly integrates into high-end light microscopy systems to offer imaging on very large populations of cells in a fully automated manner. The Leica HCS A acquisition software now allows to perform HCI with the SP5 confocal, and thanks to its CAM interface, the screening experiment can now be remote controlled from other software packages. For example, image analysis can be integrated to command new positions for acquisition, e.g. allowing secondary scans at higher resolution or detection of rare events.

Custom Image Analysis (with ImageJ macro language) can be targeted to answer specific questions with high throughput by quantifying large numbers of images, and select relevant samples to provide feedback to the secondary acquisition.



In combination with CYTOO adhesive micropatterns that allow to control cells' position, shape and internal organization, HCI becomes highly efficient and produces statistically reliable and robust results, together with new protocols for high throughput analysis.



Lectures (10h-12h)
In Sala 4 - Torre I-

Practical Sessions
(13h30-18h30)
In the ADM Facility

By Constantin Nelep (CYTOO Cell Architects)
Juan Monteagudo (Leica Microsystems)
Julien Colombelli (ADM - IRB Barcelona)

1. HCI on widefield with CYTOOchips™
2. HCI on confocal with Leica HCS A and CYTOOchips™
3. HCI and Custom Analysis with ImageJ



www.leica-microsystems.com

For free registration, please contact microscopy@irbbarcelona.org
Places are limited!

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