BD Biosciences Technology Seminar

High Content Imaging:
Taking Cell Analysis to Multiple Dimensions

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July 6, 2011 (Wednesday)
15:00 – 16:30
L9-53, Conference Room, 9/F, Laboratory Block

ALL ARE WELCOME

The power of imaging for analysis is the ability to measure not only fluorescence intensity in single cells, but also molecular redistribution and morphological features at sub-cellular levels and in a physiologically relevant environment. High content image acquisition and quantitative analysis extends the power of standalone microscopy techniques to larger cell populations for statistical relevance. A high content imaging system must provide a wide range of capabilities for basic research goals, including live-cell kinetic imaging and high-resolution multi-dimensional imaging, as well as high power flexible software for imaging and data analysis. We will highlight a number of specific applications developed with BD Pathway Bioimager and its software for quantitative imaging data in multi-parameter and multi-dimensional cell based studies.

Applications include:

- Live cell imaging: Calcium kinetics and T cell induced cell killing
- Sub-cellular imaging: protein translocation, bacteria/virus invasion and co-localization, and mitochondrial injury
- Stem cell classification and surface marker screen
- Whole organism imaging: c elegan and Zebrafish
- Non-adhering cell imaging