A New Edge For High Content Screening: The MIAS HCS Patform And eaZYX Imaging Software

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The principles of human vision used in the eaZYX imaging software for the MIAS system have lead to superior image acquisition and powerful image analysis for living cells, small animals and tissue. For screens with extremely low light-yield conditions, high-speed fluorescence image capture and analysis is achieved: MIAS will screen assays with less label from less abundant proteins or structures. The viable illumination conditions in MIAS virtually eliminate photo-bleaching or photo-toxicity allowing multi-point kinetic readings and multi-well parallel time-lapse analysis for assay development or hit validation.

MIAS enables fluorescence-based compound screens like: nuclear translocation; altered expression level; viable *C.elegans* morphogenesis, viable cell-cycle-dependent sub-cellular localisation through 12h parallel time-lapse analysis. Brightfield applications inclide: neurite extension screen without label; goblet cell counts; hibernating myocard, color-invariant tissue analysis.

MIAS automation features include: patented robust auto-focussing; ‘unlimited’ tiled images; parallel time-lapse in multi-well plates; multi-well plate views; table-to-image data cross-reference system.