

INCELL ANALYSER



FEATURES

- Software and hardware autofocus
- Slide, whole well and plate imaging
- Liquid handling
- Temperature control
- Selected polychroics, filters, and objectives
- Automated objective, correction collar and polychroic changing
- Image restoration options
- Fluorescent, Bright-field, Differential interference contrast (DIC) and Phase-contrast imaging modes
- 3-D Analysis, Developer and Spotfire Image analysis toolboxes

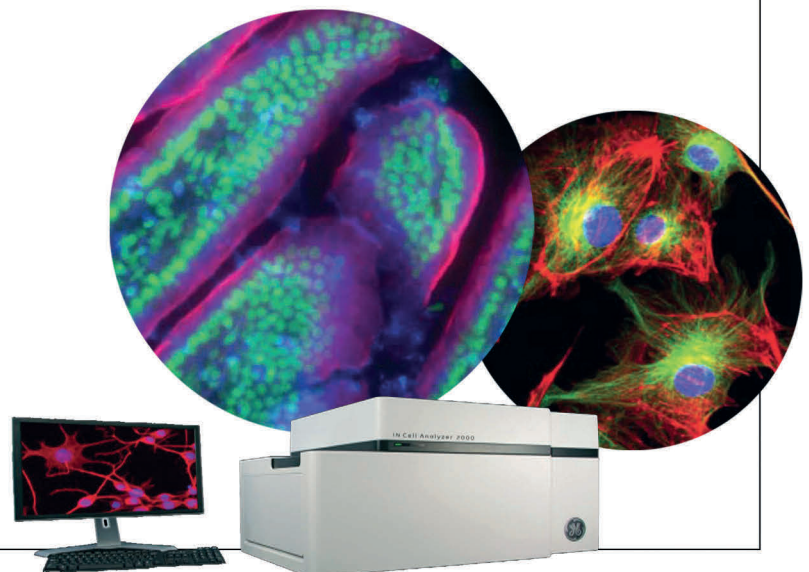
BENEFITS

- Speed maximised without compromising image quality.
- More statistically robust results due to larger capture of cells in one image.
- Flexible tool -ideal for unique and challenging assays.

The InCell Analyser 2000 makes even the most challenging high-content assays an everyday reality. High-content analysis provides multiplexed, quantitative data based on automated cell imaging, allowing you to answer complex questions rapidly, in a true biological context.

- From investigative microscopy to automated high-content screening
- From organelles to cells to tissues to whole organisms
- From fixed end-point assays to extended live-cell studies

The InCell Analyser 2000 delivers accurate, high-speed imaging through a combination of proprietary optics and fast hardware and software autofocus for screening applications. A bright light source reduces exposure times to further maximize speed without compromising image quality and cell health. Confocal-like images can be obtained with the rapid image restoration options.



CASE STUDY

NC3Rs PROJECT

Developing an integrated “in vitro carcinogenicity predictive tool” Utilising Multiple Toxicological Tests

Aims of Project:

- Improve the in vitro prediction of carcinogenicity
- Design a better in vitro safety assessment strategy
- Reduce misleading positives and the expense and animal tests wasted on pursuing these

NANOPARTICLE CYTOMETRICS

A quantitative analysis of the toxic effect of nanoparticles

- Aims of Project: Deliver a fully calibrated metrology that provides information on nanoparticle dose per cell (typically a million cells).
- Provide a fundamental understanding of the way in which nanoparticle dose is acquired by cells through natural uptake mechanisms (endocytosis).
- How nanoparticle dose is diluted within growing tissue as particles are divided between daughter cells upon cell division (mitosis).
- Study any toxic effects of nanoparticles on the cells and provide quantification of potential nanotoxicity across different cell types

APPLICATIONS

AREA OF INTEREST	FEATURES	APPLICATIONS
LIVE-CELL ASSAYS	<ul style="list-style-type: none"> • Variable temperature control (up to 42°C) • Environmental control module • Hardware optimized for optical performance • Reduced exposure times • Cell tracking software • Fast hardware autofocus 	<ul style="list-style-type: none"> • Time-course analysis • Temperature-sensitive mutations • Cell migration • Cell lineage/cycle studies • Stem cells • Kinetic studies • Predictive toxicology
SPEED	<ul style="list-style-type: none"> • Large chip CCD camera • Bright optics with powerful light source • Fast hardware autofocus. • Rapid slide imaging 	<ul style="list-style-type: none"> • Compound screening • Predictive toxicology • RNAi screening • Slide-based arrays • (siRNAs)
SENSITIVITY & RESOLUTION	<ul style="list-style-type: none"> • High-performance CCD camera • Wide range of objectives • Rapid image restoration options • Combination of Z-axis projection and image restoration 	<ul style="list-style-type: none"> • Phenotypic profiling • Rapid detection of low and weak fluorescent sensors • Micronuclei screening • Protein localization • Functional studies • Antibody characterization • Target identification