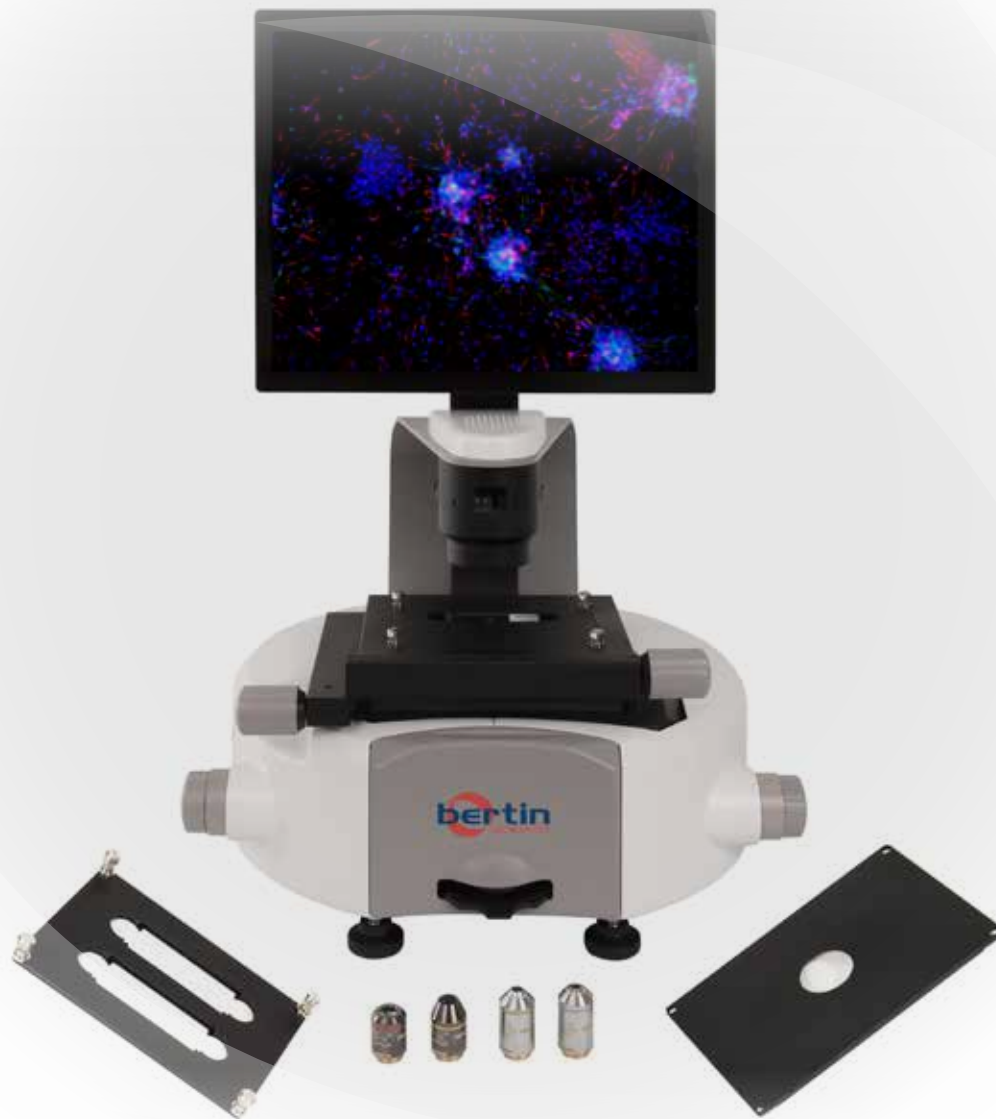


# Smart Cell Imaging System



- **High sensitivity** in fluorescence
- **Embedded cell culture applications** for accurate results
- **Smart interface** to save and share results



# INCELLIS

## New generation of cell imager

The InCellis is a unique cell imager developed to generate publication-quality images of cells, on tissue slide or in cell culture.

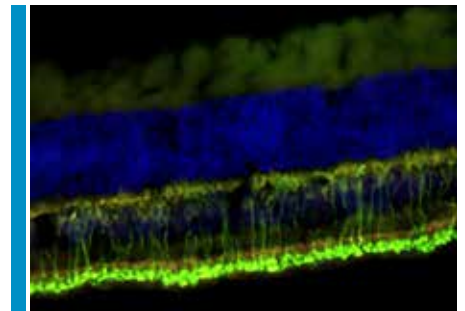
User-friendly, the InCellis provides monochrome or coloured images with white light (for brightfield & phase contrast) and fluorescence. In a minute, on-board applications allow users to determine cell transfection efficiency, cell culture confluency or total cell number in a large panel of cell culture vessels (T-flasks, petri dishes, multiwell plates...).

Cell biologists can easily choose the appropriate sample for downstream analysis.

### MULTI-CHANNEL CELL IMAGING

- **3 clicks** to get high resolution images
  - **High sensitivity** with unique Low Light CMOS sensor
- **Up to 4 fluorescence channels** overlay

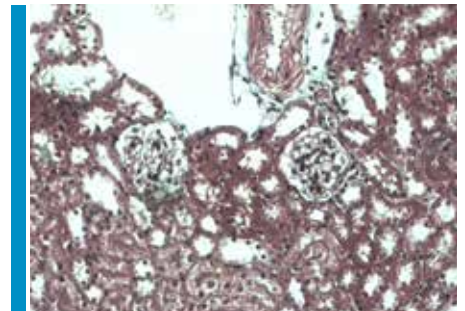
*Three dyes stained mouse retina detected in DAPI, GFP and RFP channels with 40X FL Plan coverslip objective >*



### TRUE COLOURED TISSUE SLIDE IMAGE

- **Explore the sample** with the right magnification (from 4X to 60X)
- **Get images** with publication quality
  - **Save image** with annotations, settings & scale bar

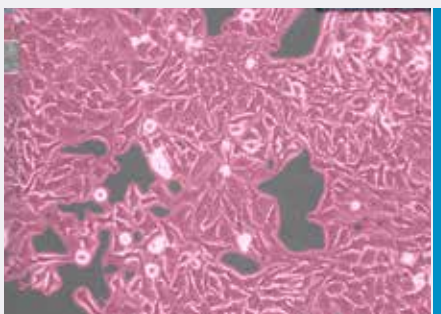
*Mouse kidney section imaged in colour mode with 40X LWD FI/Ph objective >*



## ► Embedded cell culture applications for sample qualification

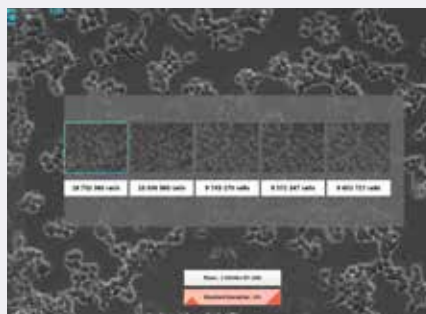
Cell biologists know that the automatic determination of cell number or confluency levels are important quality control parameters in cell-based assays. The InCellis is the first cell imaging system offering a panel of reliable cell culture applications.

### CELL PROLIFERATION STUDY



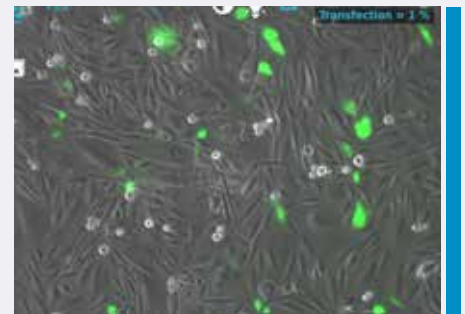
*A549 cell line in phase contrast with 20x LWD objective*

### CELL COUNTING



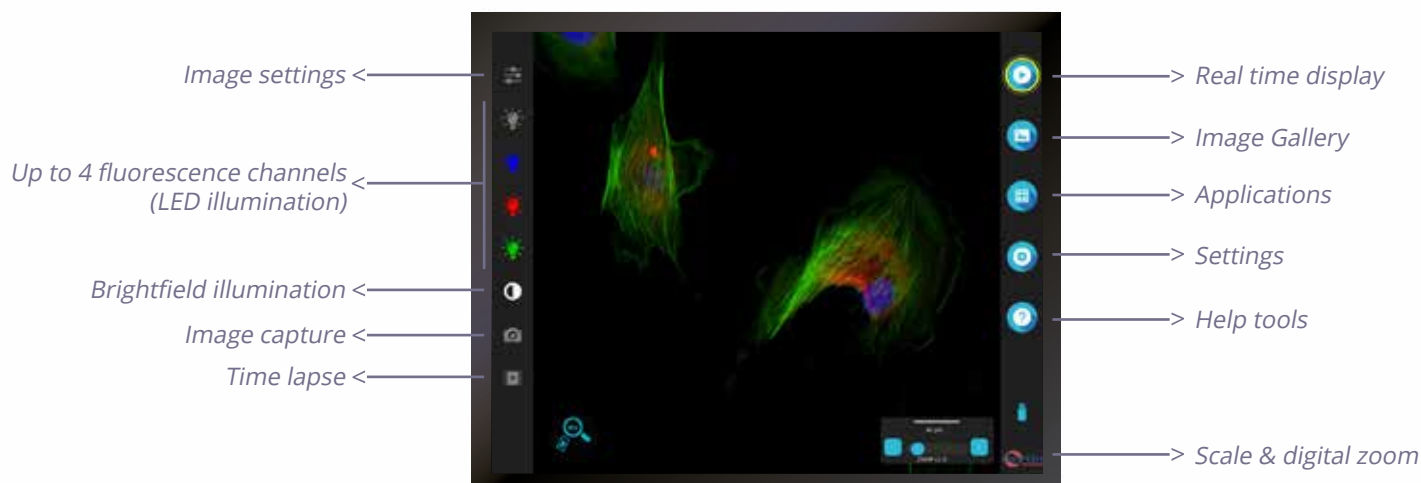
*5 different fields of view of NIH3T3 cell culture, with 20X LWD FI/Ph objective.*

### TRANSFECTION EFFICIENCY "IN THE FLASK"



*Hela transfected cell culture, overlay of white light phase contrast and GFP channel, imaged with 20X LWD FI/Ph objective*

## ► User friendly interface & touch screen



**OBTAIN HIGH RESOLUTION IMAGES OVERLAY IN 3 CLICKS!**

## ► Unique Low Light CMOS colour sensor

- **Inherent signal-to-noise ratio (SNR)**, read-out noise below 4 e<sup>-</sup> without cooling
- **Quantum efficiency >60%** in blue, green and red colours
- **Licensed Kameleon technology**

POWERED BY **PHOTONIS**



## Technical features

LOW LIGHT CMOS COLOUR SENSOR

ON-BOARD AUTOMATED CELL CULTURE APPLICATIONS

4 FLUORESCENCE CHANNELS

CHOICE OF PATENTED FLUORESCENT LIGHT MODULES

6 POSITIONS OBJECTIVE TURRET

LARGE FIELD OF VIEW

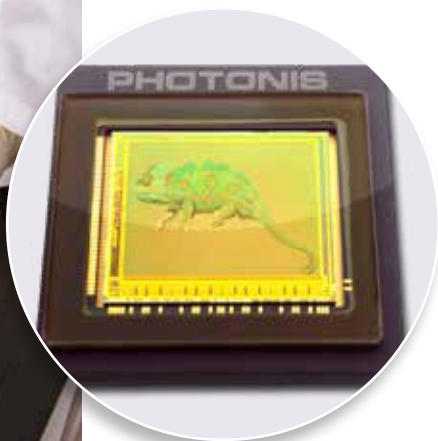
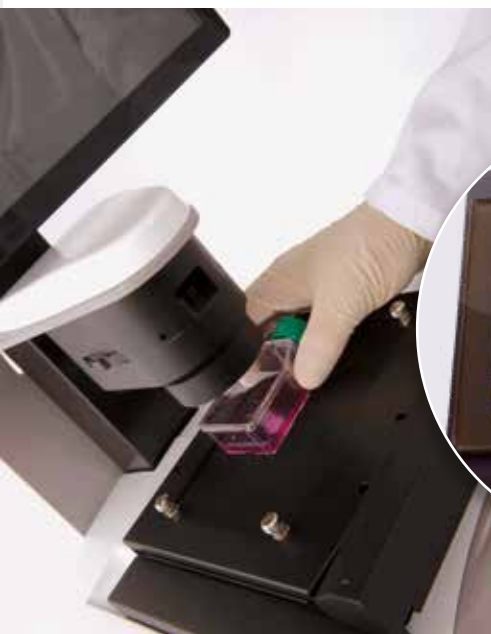
TOUCH SCREEN MONITOR

NETWORK COMPATIBILITY

EMBEDDED TECHNICAL SUPPORT:  
- FLM DYE COMPATIBILITY GUIDE  
- OBJECTIVE USER GUIDE

DEDICATED VESSEL HOLDERS

CATALOG NUMBER  
P001017-ICLS0-A



# Specifications

<b>Light source</b>	Interchangeable InCellis Fluorescent Light Modules with Adjustable-intensity LED (>50,000-hour life per light cube)
<b>Contrast methods</b>	Transmitted light (brightfield and phase contrast)
<b>Objective turret</b>	6-positions, front wheel control
<b>Fluorescence channels</b>	Motorized 4 fluorescent channels, software controlled, see below fluorescent light module available
<b>Condenser</b>	Including 4 positions, with brightfield and phase-contrast annuli
<b>Stage</b>	Mechanical stage with X-Y axis fine-positioning controls, Z axis fine and coarse adjustments Interchangeable vessel holders available, see accessories table
<b>LCD display</b>	17" high-resolution touch screen (1280x1024 pixels) with adjustable tilt (waterproof, IP25 requirement)
<b>Camera</b>	Low Light colour CMOS Sensor, 1280x1024 pixels, very low signal-to-noise ratio, read-out noise below 4e- without cooling, Quantum efficiency >60% (80% for wavelength >600 nm)
<b>Exported formats</b>	24-bit colour TIFF or BMP / Movie: AVI
<b>Output</b>	3 USB ports
<b>Downloadable Applications</b>	Find the complete list on <a href="http://www.bertin-instruments.com">www.bertin-instruments.com</a>
<b>Power supply</b>	AC/DC 100-240 V, 100 W, 12 V, 8.33 A
<b>Operating Power</b>	100-240 V, 1.5 A, 50/60 Hz
<b>Operating environment</b>	5-40°C, 20-95%
<b>Dimensions</b>	H: 635 mm / D: 420mm / W: 420mm
<b>Weight</b>	24 kg


## Fluo Light Modules

<b>DAPI F.L.M</b>	Excitation 365/35, Emission 450/60	<b>TX-RED F.L.M</b>	Excitation 560/55, Emission 645/75
<b>GFP F.L.M</b>	Excitation 475/20, Emission 518/32	<b>CY5 F.L.M</b>	Excitation 630/50, Emission 695/55
<b>RFP F.L.M</b>	Excitation 529/45, Emission 595/60	<b>YFP F.L.M</b>	Excitation 500/25, Emission 545/35

## Objectives

<b>Long Working Distance Objectives (L.W.D)</b>	Classical high quality objectives for cell culture (T-flasks, Petri dishes, multiwell plates, tissue slides) Compatible with brightfield, phase contrast and fluorescent cell imaging
<b>UPLFLN4XPH/0.13</b>	4X FL/Ph Coverslip objectives. WD = 17 mm, NA = 0.13
<b>UPLFLN10XPH/2</b>	10X FL/Ph Coverslip objectives. WD = 10 mm, NA = 0.3
<b>LCACHN-PH20X/0.4</b>	20X FL/Ph LWD objectives. WD = 3.2 mm, NA = 0.4
<b>LCACHN-PH40X/0.55</b>	40X FL/Ph LWD objectives. WD = 2.2 mm, NA = 0.55
<b>Coverslip Objectives</b>	Optimized objectives for tissue slides Compatible with brightfield & fluorescent cell imaging
<b>UPLFLN4X/0.13</b>	4X FL LWD objectives. WD = 17 mm, NA = 0.13.
<b>UPLFLN10X/2</b>	10X FL LWD objectives. WD = 10 mm, NA = 0.3
<b>UPLFLN20X/0.5</b>	20X FL Coverslip objectives. WD = 2.1 mm, NA = 0.5, Cover Glass thickness = 0.17
<b>UPLFLN40X/0.75</b>	40X FL Coverslip objectives. WD = 0.51 mm, NA = 0.75, Cover Glass thickness = 0.17
<b>UPLFLN60X/0.9</b>	60X FL High performance objectives. WD = 0.2 mm, NA = 0.9, Cover Glass thickness = 0.11-0.23
<b>L.W.D &amp; Coverslip Objectives</b>	Optimized objectives for all samples (T-flasks, Petri dishes, multiwell plates and tissue slides) Compatible with fluorescent, brightfield and/or phase contrast cell imaging
<b>LUC-PLFLN20X/0.45</b>	20X FL High performance objectives. WD = 6.6-7.8 mm, NA = 0.45, Cover Glass thickness = 0-2 mm
<b>LUC-PLFLN40X/0.6</b>	40X FL High performance objectives. WD = 2.7-4 mm, NA = 0.6, Cover Glass thickness = 0-2 mm
<b>LUC-PLFLN60X/0.7</b>	60X FL High performance objectives. WD = 1.5-2.2 mm, NA = 0.7, Cover Glass thickness = 0-2 mm
<b>LUC-PLFLN 20x Ph /0.45</b>	20X FL/Ph High performance objectives. WD = 6.6-7.8 mm, NA = 0.45, Cover Glass thickness = 0-2 mm
<b>LUC-PLFLN 40x Ph/0.6</b>	40X FL/Ph High performance objectives. WD = 2.7-4 mm, NA = 0.6, Cover Glass thickness = 0-2 mm

## Accessories

	Holder Type	Technical Features
	Universal Holder	Holder with one hole (30 mm diam) in the center
	2 Slides 25 x 75 mm Holder	Holder with two holes of 25x75 mm for 2 slides
	T75 Cell culture Flask Holder	Holder with one 75 x 50 mm window for T75 & T25 Flask
	Multiwell plate Holder	Holder with one 128 x 86 mm window
	Four 35 mm Petri Dish Holder	Holder with 4 holes, 35 mm diam each, for 35 mm Petri Dish