

Imaging solutions

to answer your biological questions

Stunning images | High throughput | Powerful analysis

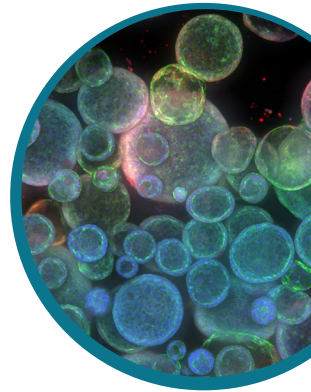
Imaging systems



ImageXpress® Confocal HT.ai

Capture large 3D organoid and spheroid images with up to double the speed

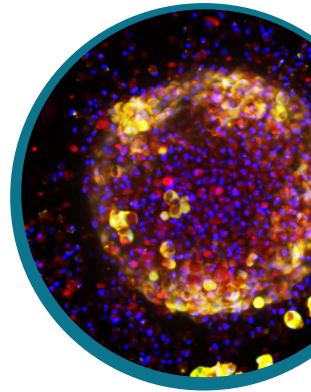
- Ideal for 3D organoid and spheroid imaging
- Seven-channel laser light source with eight imaging channels
- Machine learning analysis ready
- Up to 4X increase in signal when using automated water immersion objectives
- Greater than 3 log dynamic range
- 3D volumetric analysis
- Better than 25 nm stage accuracy



ImageXpress® Micro Confocal

Combines speed, sensitivity, and resolution for confocal imaging

- Confocal imaging at the speed of widefield imaging
- Greater than 3 log dynamic range
- Better than 25 nm stage resolution
- 3D volumetric analysis
- Water immersion objectives and laser excitation available



Key features



High quality images



3D imaging and analysis



Environmental control



Fast throughput



Turnkey application protocols



Automation-compatible



Multiple imaging modes



Ease of use



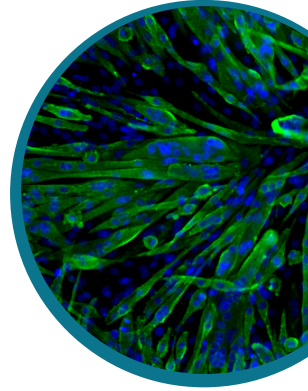
Water immersion imaging



ImageXpress® Micro 4

Configurable, high-throughput widefield imaging for fast biological processes

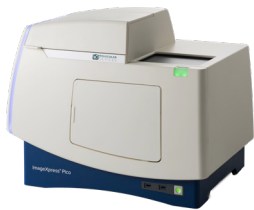
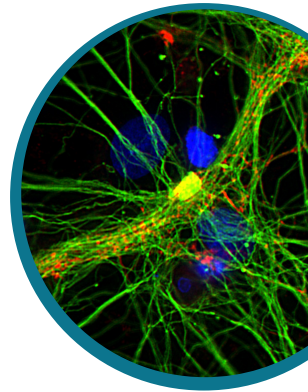
- Ideal for high-throughput screening, time-lapse imaging from calcium assays to multi-day subcellular assays, and intracellular yeast assays
- Greater than 3 log dynamic range
- Better than 25 nm stage resolution
- 3D volumetric analysis
- Upgradeable to confocal imaging
- Real-time kinetic environmental control



ImageXpress® Nano

Fluorescence imaging, widefield platform for common biological assays

- Ideal for phagocytosis, mitotoxicity, autophagy, and cell differentiation
- CMOS 12 bit
- Better than 25 nm stage resolution
- 3D z-stack acquisition
- High speed image acquisition
- Real time kinetic environmental control

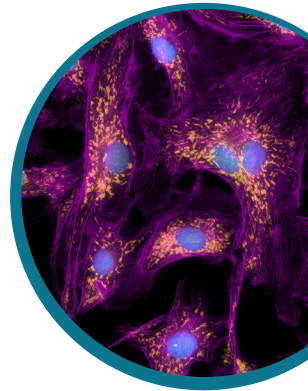


ImageXpress® Pico

Compact system that allows users to go from samples to results in minutes

- Ideal for cell counting, transfection efficiency, and cell health assays
- 25+ preconfigured application protocols
- 3D z-stack acquisition
- On-the-fly analysis
- Environmental control for live cell assays
- Access data from a browser—anytime, anywhere
- Optional Digital Confocal on-the-fly 2D deconvolution*

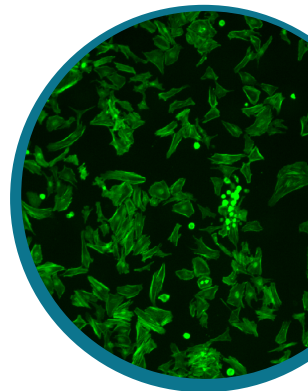
* ImageXpress Pico Digital Confocal uses AutoQuant 2D Real-Time Deconvolution

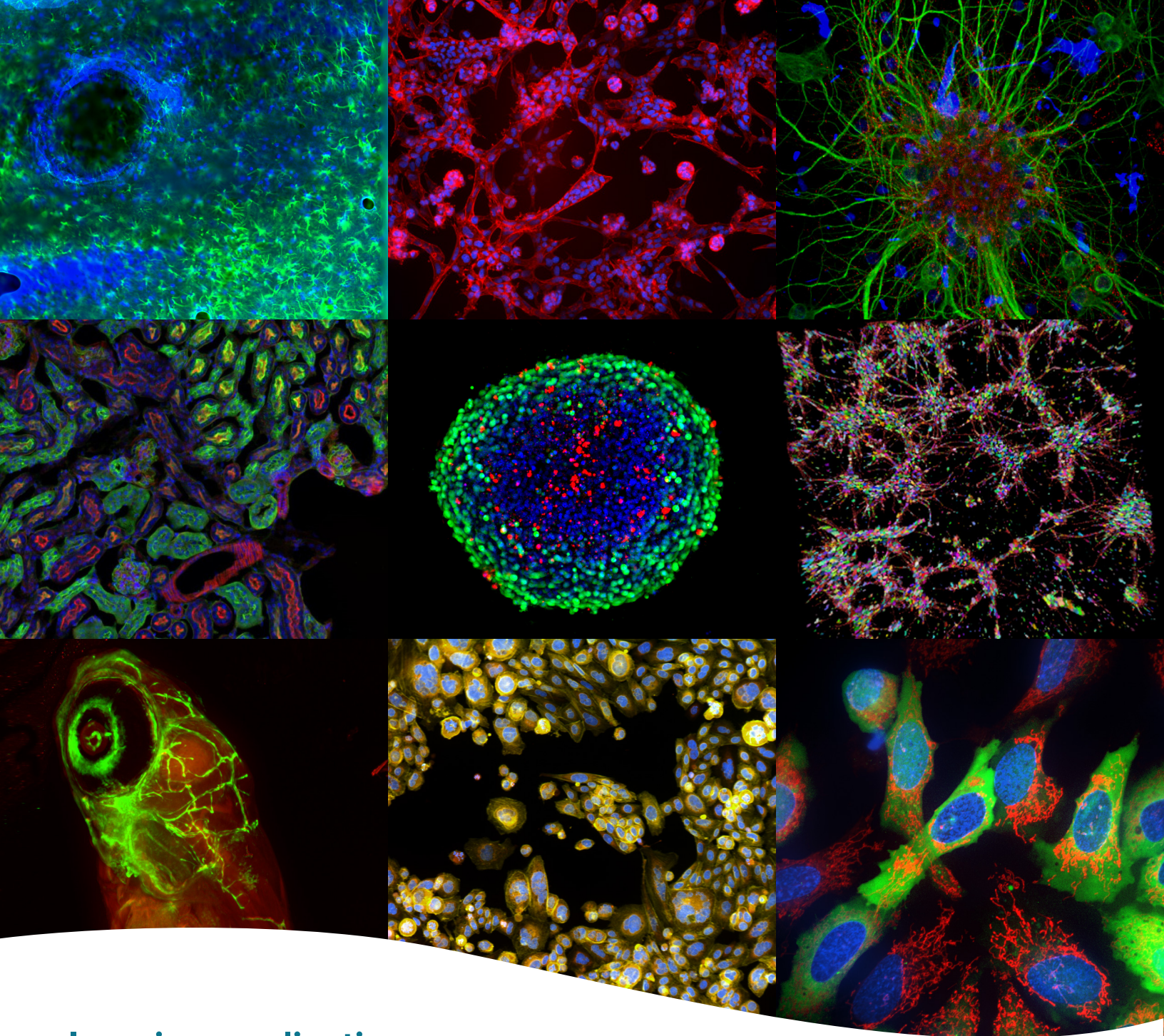


SpectraMax® i3x Multi-Mode Microplate Reader with MiniMax™ imaging cytometer

Integrated multi-mode microplate reader and imaging system

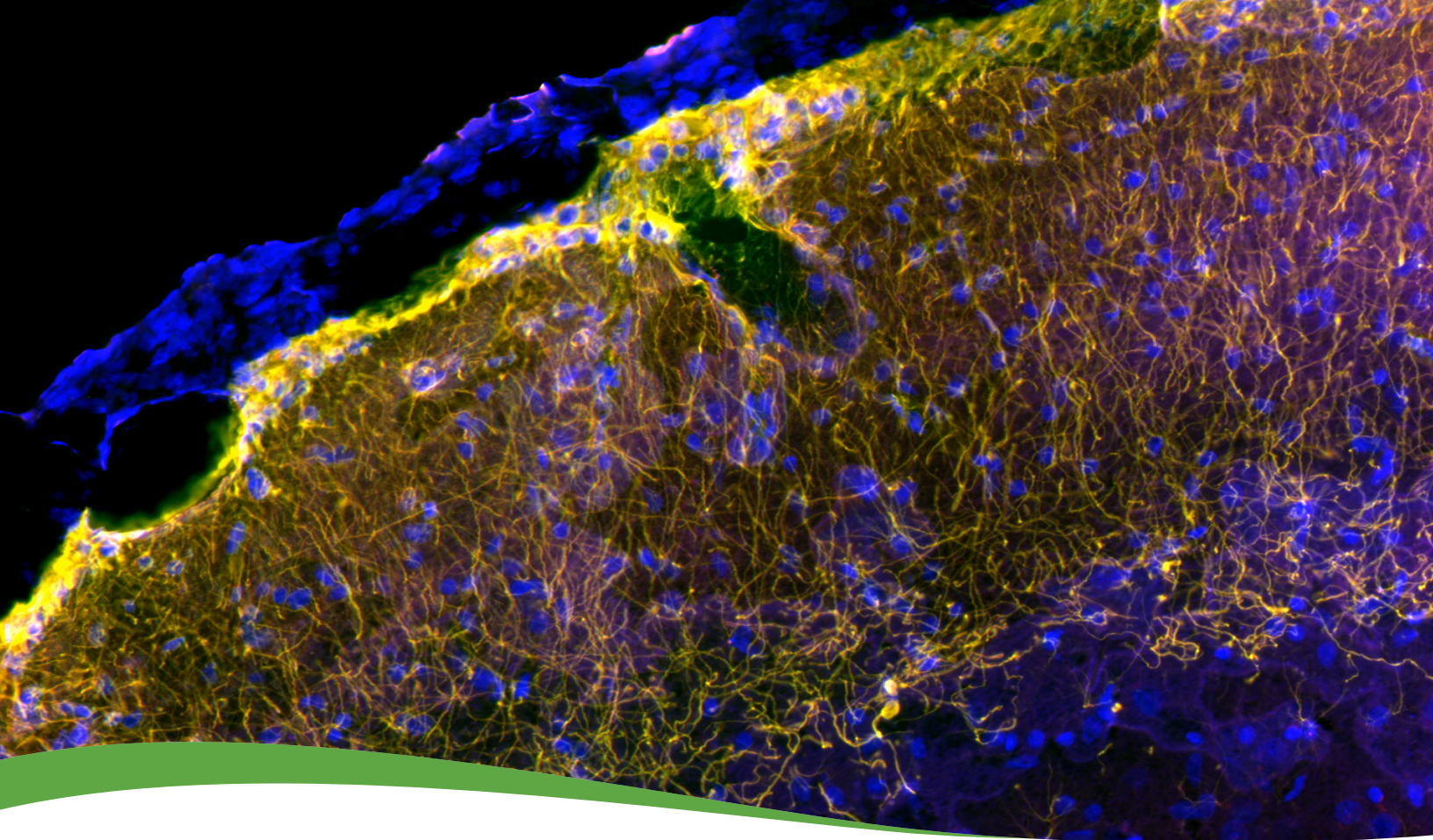
- Ideal for cell counting, label-free imaging, and cell proliferation
- Western blot, imaging, and injectors on one configurable microplate reader
- Stain free, automated cell counting
- Preset plate reader and imaging protocol library
- Advanced curve fitting and statistical analysis





Imaging applications

- 3D organoids and spheroids
- Angiogenesis
- Apoptosis
- Autophagy
- Budding yeast screening
- Cell counting
- Cell cycle
- Cell migration and invasion
- Cell painting
- Cell signaling
- Cell viability
- Co-culture assays
- Comet assay
- Colocalization
- Embryonic/induced pluripotent stem cells, cell differentiation
- Fatty acid uptake
- FMAT homogeneous assay
- Matrigel cell culture assays
- Membrane analysis
- Micronuclei and genotoxicity analysis
- Mitochondrial localization
- Mitosis
- Monopolar spindle detection
- Neurite outgrowth/process extension
- Organ-on-a-chip
- Organoids
- Pathway analysis and multiplexing
- Protein expression
- Protein movement
- Protein phosphorylation
- Kinase activation
- Quantifying cellular punctate staining
- Ratiometric intracellular $[Ca^{2+}]$ measurements
- Receptor internalization
- Spheroids and colonies
- Stem cells
- Thick tissue slices
- Transfection efficiencies
- Wound healing
- Zebrafish assays



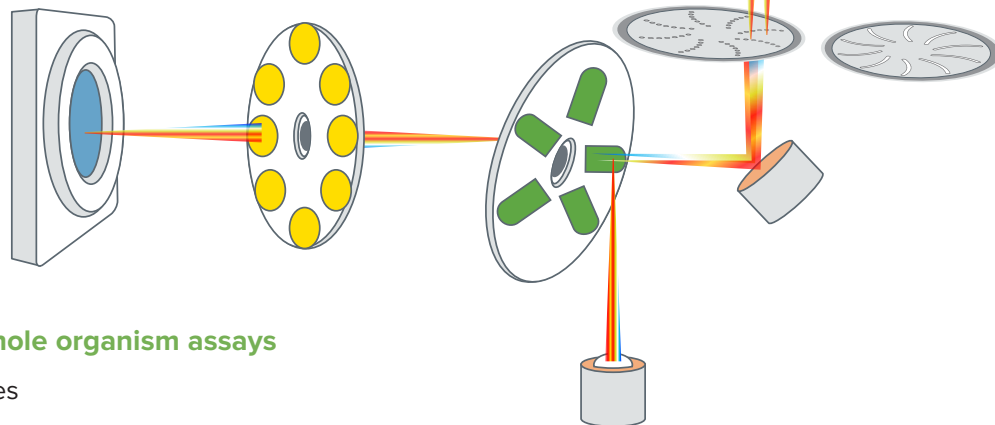
Discover More with accuracy

Exclusive AgileOptix™ spinning disk technology offers the right software-selectable configurations for your research

The ImageXpress Confocal HT.ai system features AgileOptix technology. Confocal options, including five swappable disk geometries and seven laser excitation channels, make it easy to select and configure the system to ensure the best results for a specific assay. Intelligently designed optics provide increased sensitivity with high-powered lasers, and a sCMOS sensor.

Eight imaging channels

- DAPI
- CFP
- FITC
- YFP
- TRITC
- TexasRed
- Cy5
- Cy7

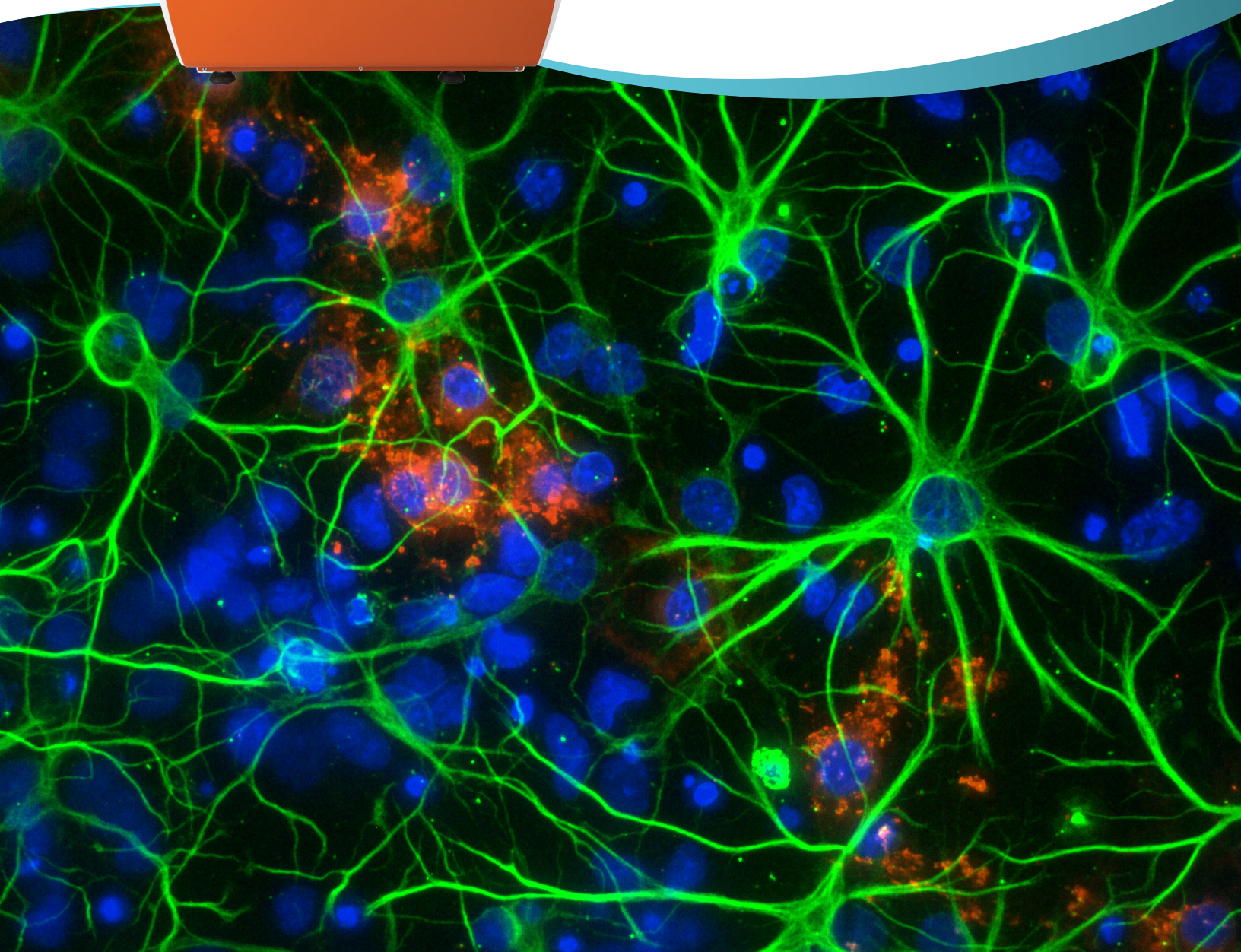


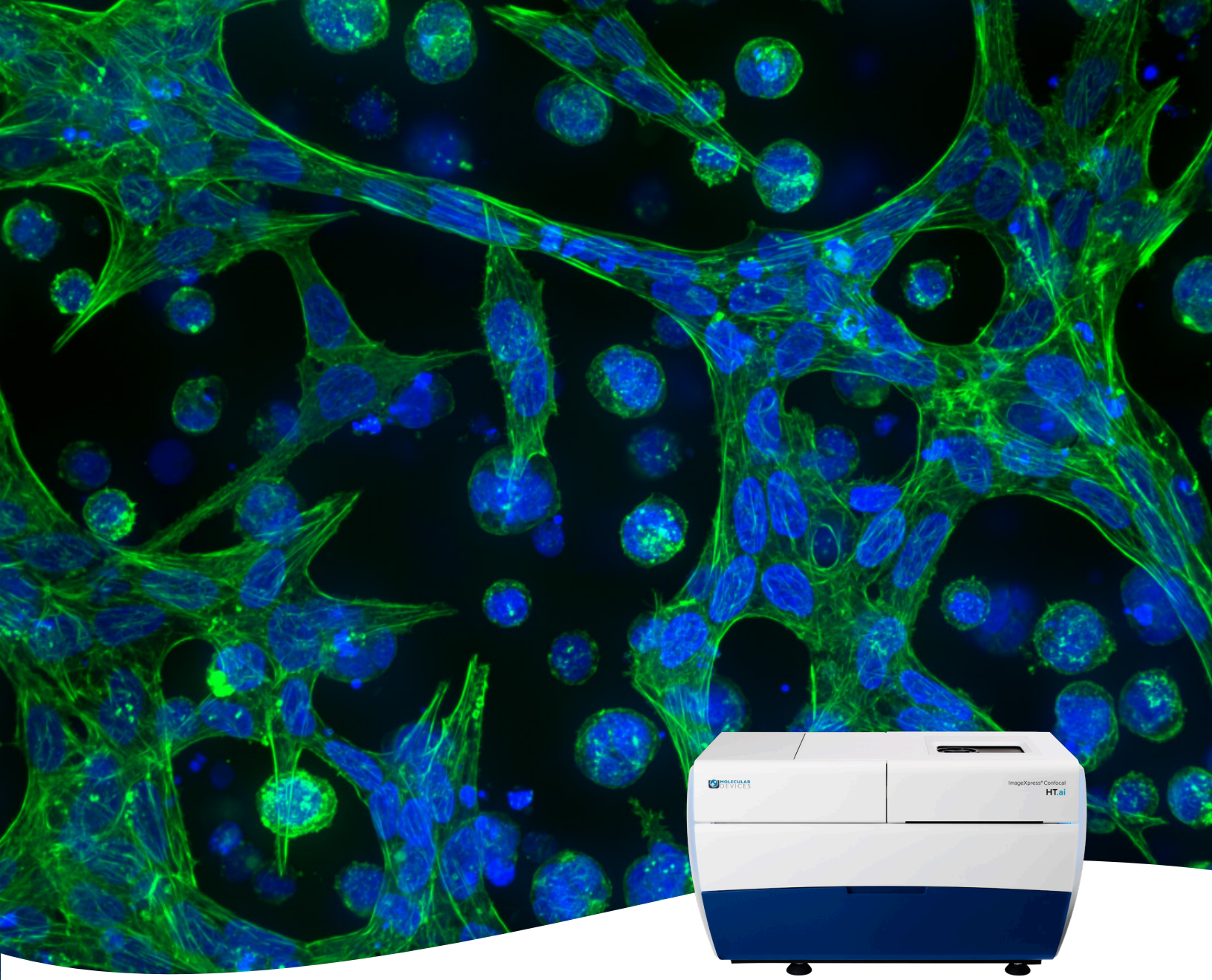
Supports subcellular through whole organism assays

- Widest selection (> 25) of objectives
- Oil objectives with up to 1.4 NA
- Air objectives with up to 0.95 NA
- Water objectives with up to 1.2 NA

Exceptional image acquisition at high speed

The ImageXpress Micro 4 and Nano systems are versatile instruments based on an inverted widefield microscope that comes standard in all models. The models are equipped with a large field-of-view camera and an on-demand solid state light engine, providing greater throughput.





Select a spinning disk confocal geometry matched to specific assay requirements.



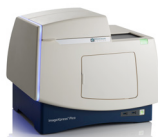
Spinning disk geometry	60 μm pinhole (single disk)	60 μm disk and 50 μm slit disk (dual disk)	60 μm disk and 42 μm pinhole disk (dual disk)
High-sensitivity detection	•	•	•
Fast acquisition	•	•	•
>3 log dynamic range*	•	•	•
Widefield mode for flat biology	•	•	•
Most confocal applications	•	•	•
Highest resolution imaging			•
High-throughput applications		•	

*Powered by our highly responsive sCMOS sensor.

System specifications



SpectraMax i3x Multi-Mode Microplate Reader with MiniMax imaging cytometer



ImageXpress Pico Automated Cell Imaging System



ImageXpress Nano Automated Imaging System



ImageXpress Micro 4 High-Content Imaging System



ImageXpress Micro Confocal High-Content Imaging System



ImageXpress Confocal HT.ai High-Content Imaging System

Product features

Microplate types	6- to 1536-wells for plate reader, 96- and 384-wells for imaging	Up to 384-wells	Up to 1536-wells	Up to 1536-wells	Up to 1536-wells	Up to 1536-wells
Microscope slides	•	•	•	•	•	•
Number of fluorescent channels	2	4	5	5	5	8
Objective range	4X	4-63X	2-60X	1-100X	1-100X	1-100X
AgileOptix Spinning Disk Technology				Upgradeable	•	•
Z-stack acquisition		•	•	•	•	•
High-intensity 7-channel laser source						•

Optional features

High-intensity laser source						•
Water immersion objectives					20X, 40X, & 60X	20X, 40X, & 60X
Confocal		Digital*	Digital*	Digital*	•	•
Environmental control for CO ₂ , humidity and temperature control		•	•	•	•	•
Automated 3D analysis with volumetric output			•	•	•	•
On-board liquid handling				•	•	•
Dual injectors	•					
Brightfield transmitted light	•	•	•	•	•	•
Phase contrast				•	•	•

*Digital Confocal uses AutoQuant 2D Real-Time Deconvolution

High-performance customizations[†]

High-intensity laser light source				•	•	
Deep tissue penetrating, confocal disk module				•	•	•

[†]For terms and conditions, visit www.moleculardevices.com/ixmc#options

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