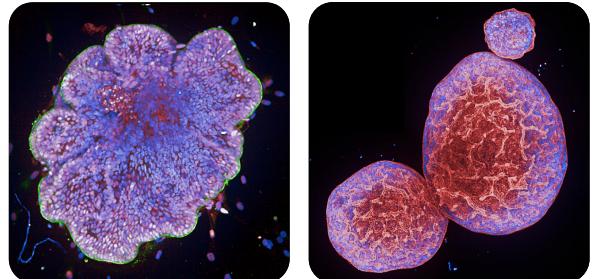


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Faster data. Smarter analysis.

Introducing the **Opera Phenix OptIQ**, our confocal high-content imaging system for advanced 3D models and live-cell applications.

Built on two decades of innovation, Opera Phenix OptIQ™ high-content imaging system excels at phenotypic screening and sophisticated imaging assays across diverse biological models including 3D organoids and organ-on-chip samples. Equipped with Harmony™ and Phenologic.AI™ image analysis software, the Opera Phenix OptIQ offers an intuitive user interface for image acquisition, analysis, and evaluation.



Key features include:

- High-speed imaging from multiple cameras and simultaneous multi-color acquisition.
- A pinhole and a microlens disk spinning in tandem for increased light efficiency in confocal imaging
- Get productive faster with ready-made templates and stepwise custom analysis in Harmony software.

What's new:

- > 95% QE camera(s)
- Advanced laser-based autofocus,
- Hypoxia applications
- 10x high NA lens,
- Phenologic.AI classification tools
- *Find Organoids* building block



From accessories to software to service and support, the Opera Phenix OptIQ offers a solution for your high-content screening needs:

- **Automation ready:** explorer™ G3 integrated workstations
- **Microplates:** PhenoPlate™ created for high-content imaging
- **Reagents and kits:** PhenoVue™ kits and reagents are ready to use for your high-content imaging assays
- **Optional software additions:** Image Artist™, Signals One™

Instrument features:

- **Multiple cameras** – Increase imaging speed by using up to four high-quantum efficiency cameras (>95 QE) and simultaneous multi-color acquisition especially for extensive 3D stack imaging.
- **Improved laser-based autofocus** – Easier and more robust imaging of organoids, spheroids, and complex cell carriers (organ-on-chip and multi-layered sample carriers) provided by a new plate set-up wizard and advanced laser-based autofocus technology.
- **Microlens-enhanced spinning disk confocality** – A pinhole and a microlens disk spinning in tandem to increase light efficiency. Pinhole distances suited for 3D samples, reducing out-of-focus light.
- **Proprietary Synchrony™ optics** – reduced spectral crosstalk during simultaneous acquisition of multiple colors by separating adjacent fluorescence excitation and emission patterns, providing greater speed and higher sensitivity.
- **Automated water-immersion objectives** – Improve image quality and get better data by enhancing the signal to noise ratio and improving the resolution while capturing more light.

Applications:

- MPS imaging
- Functional genomic screening
- Phenotypic screening and cell painting
- Drug sensitivity testing
- Fast response assays
- Imaging under hypoxic conditions

Software features:

Acquisition:

- Intelligent image acquisition with PreciScan – image only the objects you are interested in, centered at high magnification, thereby reducing imaging time and data size.
- Find focus mode for identifying the right focus plane quickly.
- AI-based and classical digital phase contrast imaging.

Analysis:

- Ready-made turnkey applications.
- Easy and intuitive creation and modification of analysis sequences using customizable image analysis building blocks.
- Phenologic.AI plug-in allowing for cell segmentation in brightfield and fluorescence, and cell classification using AI-based modules.
- 3D Analysis: explore your cell models by visualizing them in a 3D and an XYZ-viewer and quantify volumetric and other 3D related phenotypic readouts.
- The *Find Organoids* building block within Harmony software can detect organoids in brightfield stacks using 2D or 3D detection with advanced object splitting.



Learn more

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