

# PANNORAMIC<sup>®</sup> Confocal

Confocal scanning for research pathology applications in unprecedented image quality and unparalleled speed



- Innovative structured illumination **confocal imaging**
- Lowest bleaching and phototoxicity
- **Low running costs**



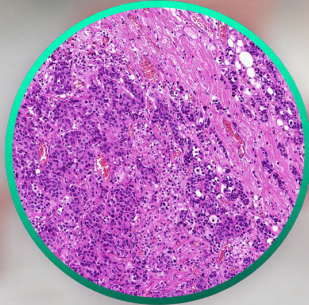


Research laboratories require maximum image quality (low bleaching and phototoxicity) at a considerable scanning speed.

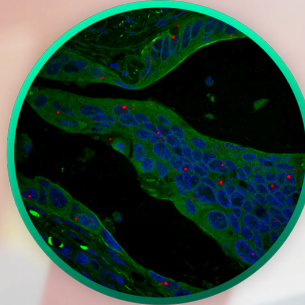
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While competitive technologies have not been able to deliver this, PANNORAMIC® Confocal RX from 3DHISTECH offers fast and high-quality confocal scanning for molecular pathology applications by combining confocal imaging with award-winning whole-slide scanning technology.

Brightfield



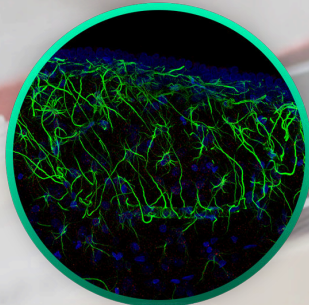
Immunofluorescence



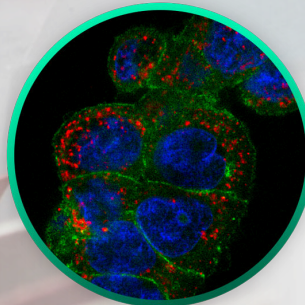
Multiplex IHC



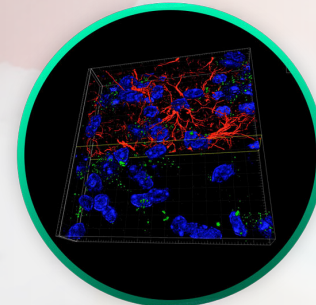
Neuroscience



Whole cell FISH



3D Reconstruction



Thanks to its innovative imaging technology, PANNORAMIC® Confocal RX offers brightfield and fluorescence confocal scanning in unprecedented quality and speed for molecular pathology applications at low running costs, contributing to increased productivity for research laboratories.

# Key Features

## Innovative imaging technology *Innovative*

- Innovative structured illumination confocal imaging to overcome the limitations of spinning pinhole-disc techniques – delivering the highest light efficiency with minimal bleaching and fast scanning
- Pseudo-colored live image
- SW DDIC (Digital Differential Interference Contrast)
- Optional Hamamatsu camera (coming soon)

## Anti-bleaching solutions *Anti-bleaching*

- Structured illumination for collecting every usable light from the sample
- High-brightness confocal mode for weak signals
- Hardware light triggering to avoid unnecessary sample illumination
- Reducible light intensity for sensitive samples

## Seamless operations *Seamless*

- New, high-capacity pipette for water immersion objective
- Improved slide loading system to handle 1.2 mm thick slides for added flexibility
- Further improved suspension for the optical system to further eliminate vibration
- Automated immersion system
- Semi-automated cleaning system for the water immersion objective

## Unique speed-up technologies *Unique*

- Darkfield and fluorescent preview
- Lumencor LED light engine for highest possible illumination power
- Scientific sCMOS camera: high sensitivity with low noise for short exposure times
- Automated water immersion system (and semi-automated cleaning system) for high NA objective

## Advanced image processing *Advanced*

- Deconvolution
- Multiple export options (ROI, grayscale/color, multichannel)
- Lossless image export to 3D applications

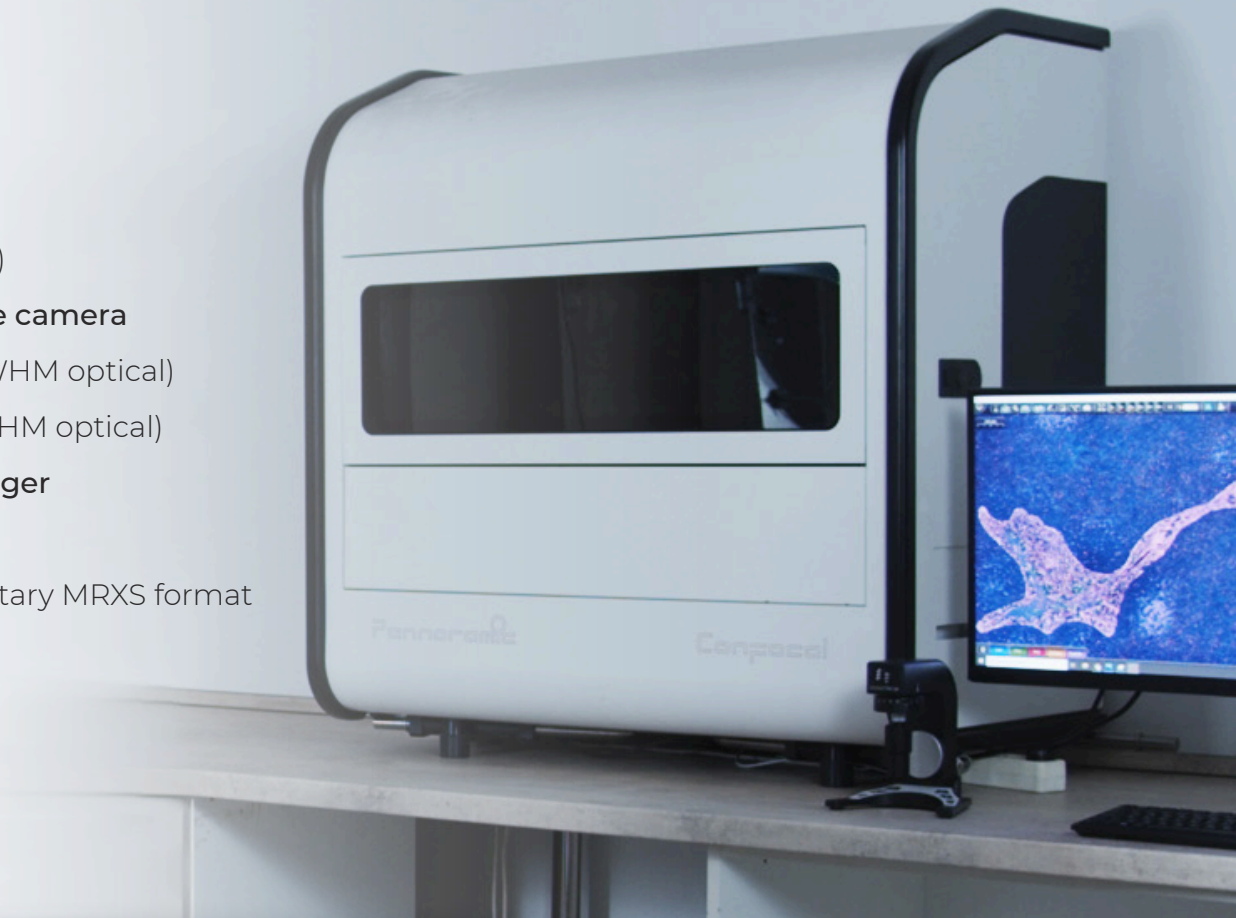
Low operating costs thanks to high LED lifetime

*Low costs*



## Key Characteristics

- **Slide capacity:** 11 slides (+1 cleaning slide)
- **Microscope objectives:**
  - » Zeiss Plan-Apochromat 20x/0.8 NA
  - » Zeiss C-Apochromat 40x/1.2 NA (water immersion)
- **Brightfield imaging with RGB illuminated fluorescence camera**
  - » Image resolution: Up to 0.16  $\mu\text{m}$  / pixel (0.4  $\mu\text{m}$  FWHM optical)
  - » Confocal sectioning: 0.2  $\mu\text{m}$  step size (1.43  $\mu\text{m}$  FWHM optical)
- **Motorized objective changer and motorized filter changer**
- **1D and 2D barcode reading**
- **Digital slide format:** Lossless or JPEG/JPEGXR in proprietary MRXS format
- **Dimensions (W x D x H in centimeters):** 97 x 58 x 103
- **Weight (kg):** 90



Please note that the PANNORAMIC Confocal digital slide scanner is for research use only, and cannot be used for patient diagnosis or treatment selection.

Developed and produced by



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