3DHISTECH
THE DIGITAL PATHOLOGY COMPANY

PANNORAMIC®
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**

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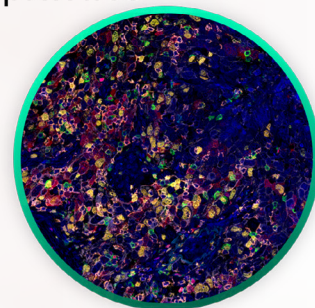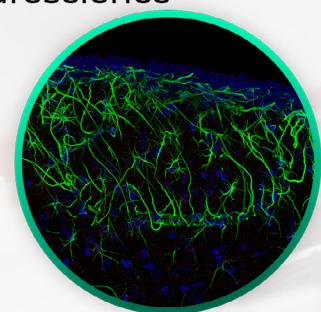
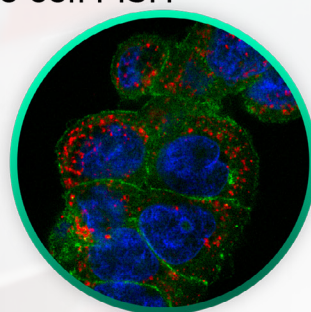**Brightfield**
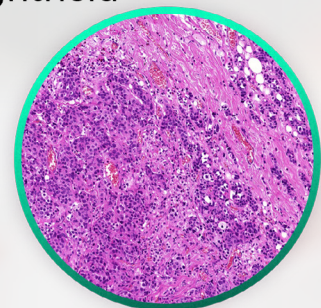
Immunofluorescence
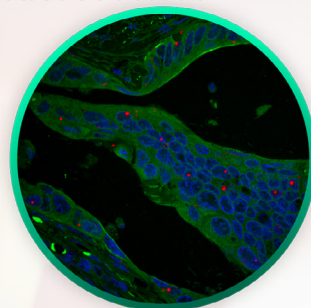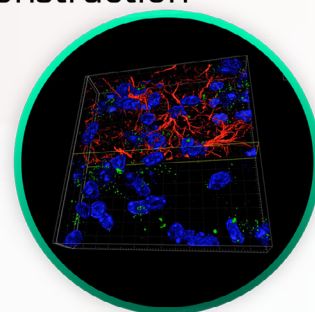
Multiplex IHC

Neuroscience

Whole cell FISH

3D Reconstruction

Thanks to its innovative imaging technology, PANNORAMIC® Confocal 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-colorized live image
- Optional Hamamatsu camera

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 Celesta Laser based 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
- Spectra Unmixing

Low operating costs *Low Costs*

Research laboratories require maximum image quality at a considerable scanning speed.

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)
  - » Zeiss Plan-Apochromat 10x/0.3 NA or Zeiss C-Apochromat 63x/1.2 NA (water immersion) available upon request
- **Brightfield imaging with RGB illuminated fluorescence camera**
  - » Image resolution: Up to 0.16 µm / pixel (0.4 µm FWHM optical)
  - » Confocal sectioning: 0.2 µm step size (1.43 µm 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
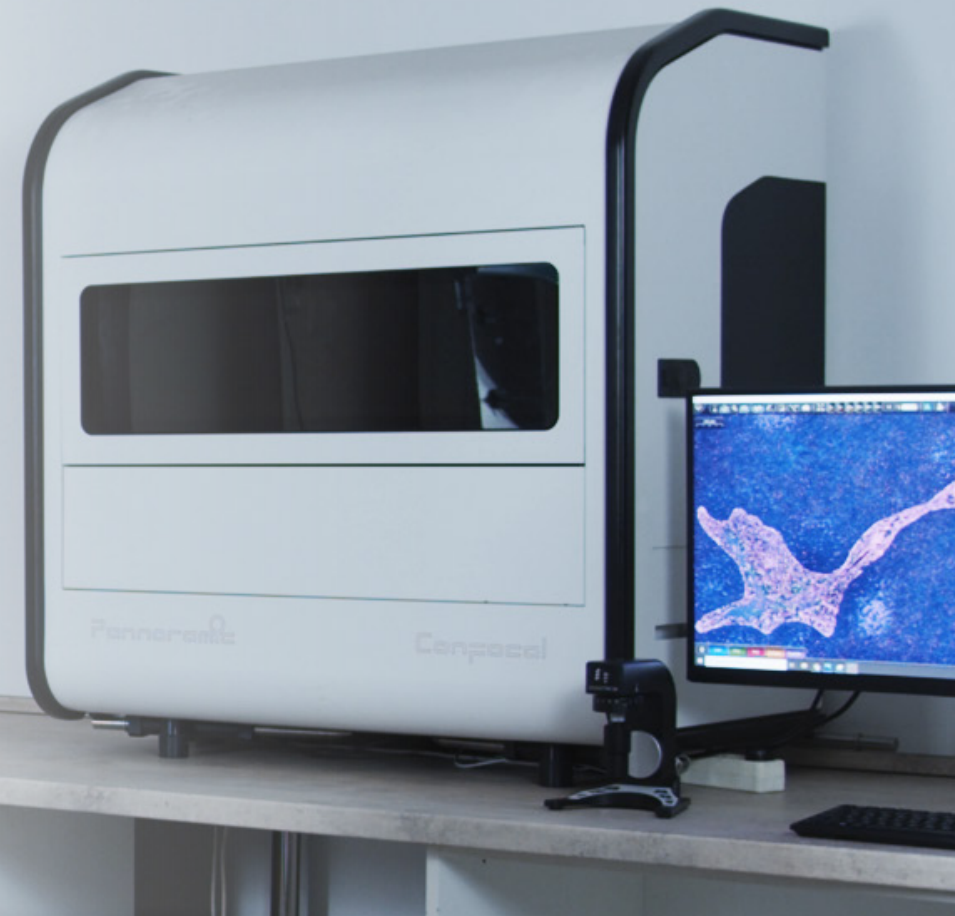
Developed and produced by

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