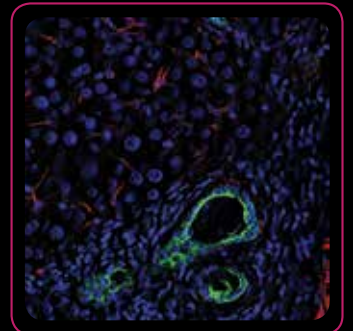
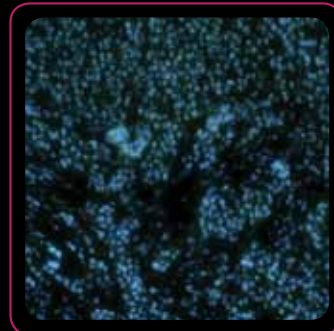
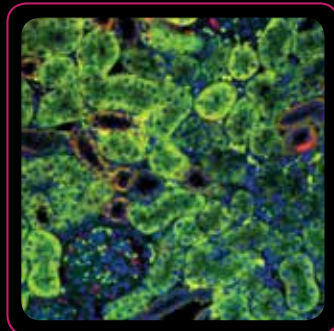
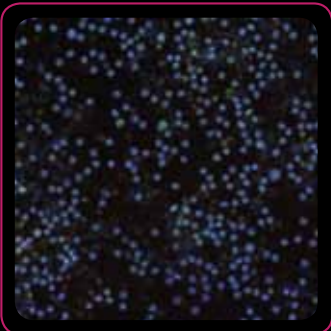
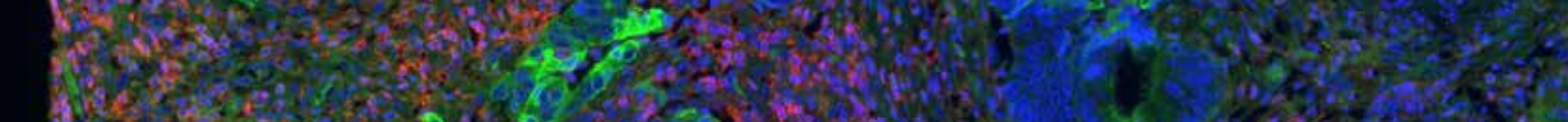


**3DHISTECH**

*Solution resides in the details*

# **DIGITAL FLUORESCENCE & FISH**





Fluorescence is where digital microscopy can truly shine. The quality of your fluorescent digital slides does not deteriorate over time which is a great advantage compared to traditional glass slides.

Imaging fluorescent samples in good quality is not easy, though. That is why line scanning technology cannot compete with area scanning utilized by Panoramic digital slide scanners.

**The Panoramic MIDI, Panoramic SCAN and Panoramic 250 Flash scanners are capable of high quality brightfield and fluorescent scanning.**

**The new Panoramic Confocal enables whole slide confocal scanning to further increase image quality.**

## You need

### High quality fluorescent scanning

3DHISTECH was the first company to introduce fluorescent whole slide imaging and continues to provide the best quality fluorescent digital slides. The fluorescent scanning technology used in all FL-capable Panoramic digital slide scanners is continuously improved and remains unsurpassed. With up to 16-bit image depth, extended focus and Z-stack, it is not surprising the Panoramic is the No. 1 choice for quality-conscious customers.

### Flexibility

Fluorescent whole slide imaging requires a greater degree of flexibility than brightfield scanning. Only area scanning used in Panoramic digital slide scanners is able to fulfill these requirements. For instance, you can always have a live view to make sure the scanned image is good quality. The digital slide scanners from 3DHISTECH offer the largest number of setup options and feature set on the market thus ensuring you can adapt to every sample.

### Speed

New improvements in scanner hardware and software mean fluorescent scanning is 3 times faster than before. This further decreases the possibility of bleaching.

### FISH

Sophisticated technologies used in Panoramic digital slide scanners make it possible to scan FISH samples with perfect co-localization in quality never seen before. All channels are handled and stored separately therefore you have all the spot information you need.

### Confocal whole slide imaging

The new Panoramic Confocal scanner uses structured illumination to achieve the highest light efficiency possible for obtaining optical sections. With state-of-the-art imaging and illumination equipment, it is able to produce confocal and brightfield images. The automate dimmersion scanning and the 12 slide tray for slide handling makes the Panoramic Confocal a perfect choice for routine and research work.



**NEW**

# Fluorescent scanning technologies

## Fluorescent capable Panoramic digital slide scanners

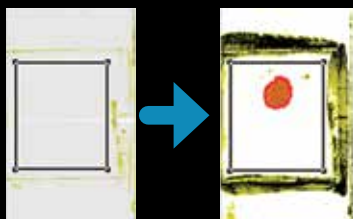


### Imaging

- The Panoramic digital slide scanners primarily use cooled, high-sensitivity monochrome chip cameras for fluorescent scanning. The use of monochrome cameras means lower exposure time and lower noise.
- You can scan your slides in up to 16-bit depth with Panoramic which not only results in outstanding colors but which gives you the ability to speed up scanning without sacrificing image quality!
- New software developments ensure tiling-free and sharp images and per-channel Z-stack.

	Basic camera option	Advanced camera option
Chip	cooled monochrome CCD	cooled monochrome sCMOS
Speed	5 FPS	30 FPS
Bit depth	12 bit	16 bit
Pixel size	6.45 x 6.45 μm	6.5 x 6.5 μm

### Previewing



- One of the great features of the Panoramic 250 Flash is the darkfield preview which detects faint brightfield or even fluorescent samples on glass slides.

### Illumination

- You can have the standard mercury short-arc lamp or the Lumencor solid-state light engine for fluorescence illumination.

	Mercury short-arc	Solid state light engine
Lifetime	2 000 h	15 000 h
Channel switching speed	N/A	10 μs

### Filters

- The fast channel switching abilities of the Lumencor solid-state light engine make it possible to use multi-band filters. This, along with the new scientific CMOS camera means huge improvements in scanning speed.

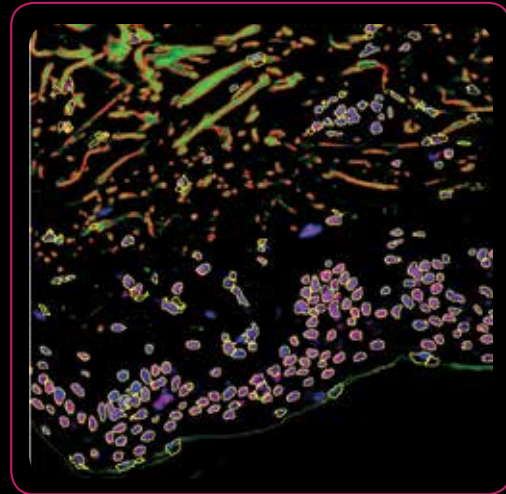
## Viewing

- The Panoramic Viewer and Case Viewer handles the channels separately. You can turn the channels on and off independently from each other and you can also pseudo-colorize them.

## IMAGE ANALYSIS

### General purpose

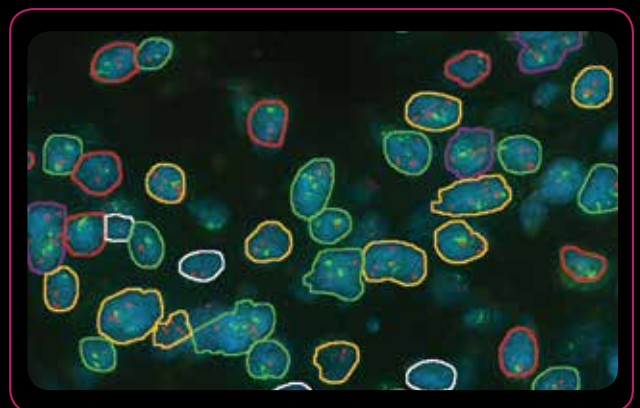
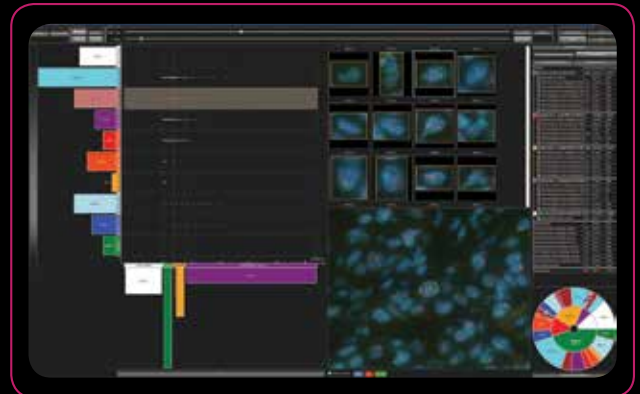
- HistoQuant can measure fluorescent slides. Teach it once and use the created profile for similar slides later! HistoQuant saves all your measurement data into CSV files and shows them to you in histograms, scatter plots or galleries.



### FISH

With FISHQuant you are able to analyze your suspension or tissue FISH samples. The newly designed algorithm is robust and 3 times faster than the predecessor!

- Create your own probe settings with the use of the probe template filter
- Up to 10 FL channels
- Automatic and user defined nuclei segmentation and spot thresholding
- Secondary clustering after measurement for non-FISH probe specific aberrations
- User selectable nuclei measurement
- Analysis localisation on slide
- Pie and bar chart
- XLS export



Production and  
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