



# HIGH-RESOLUTION TISSUE CYTOMETRY

TissueFAXS Q is a highly flexible scanning platform, which provides the benefits of both laser-free fast confocal imaging and high-throughput slide scanning. The TissueFAXS Q series delivers automated whole slide confocal imaging using a confocal spinning disk, paired with a high-power multi-channel LED light engine, a high-end sCMOS camera and the TissueFAXS automated scanning workflow.

TG's confocal systems are available in three configurations:



Automated scanning of up to 120 slides

#### **EFFICIENT**

Slide ID scanner and/or barcode reader

# **SUPER RESOLUTION**

Supports expansion-based super resolution microscopy



# **FLEXIBLE**

Confocal, widefield fluorescence and brightfield imaging

# **AUTOMATED**

Whole slide high resolution confocal imaging

## **COMPREHENSIVE**

Integrated quantitative image analysis

# **AI INTEGRATED ANALYSIS**

with deep and machine learning



TF Q+

8 slide automated confocal scanning



TF i Q+

live cell confocal imaging of cultured cells and tissue slides

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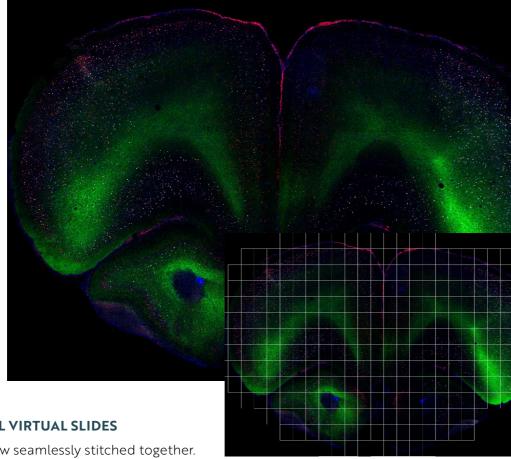
# **EXPLORE HIGH-RESOLUTION IMAGING WITH TISSUEGNOSTICS**

Mouse brain

- · size of 73.3 mm<sup>2</sup>
- four channels
- · 13 step Z-stack with Plan-Apo 20x/0.8 Air scanned in 1.5 hours

#### **CONFOCAL WHOLE SLIDE IMAGING**

**CWSI** 

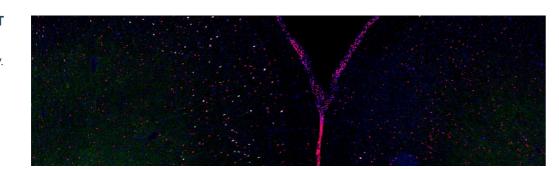


# **WORK WITH CONFOCAL VIRTUAL SLIDES**

Thousands of fields of view seamlessly stitched together.

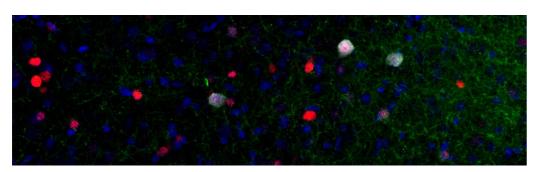
#### **HIGH-THROUGHPUT**

Full automation for a streamlined workflow.



#### **HIGH-RESOLUTION CYTOMETRY**

Analyze marker expression on the molecular level.



Mouse Brain. Courtesy of HHMI Janelia Research Campus

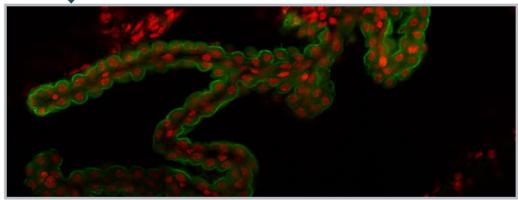
## **EXPLORE YOUR DIGITIZED SAMPLES**

Zoom in and out seamlessly; navigate through your sample as well as through the Z-stacks.



Mouse brain

- · size of 46.8 mm<sup>2</sup>
- · fields of view: 213
- · two channels
- · 11 step Z-stack with Plan-Apo 63x/1.4 Oil



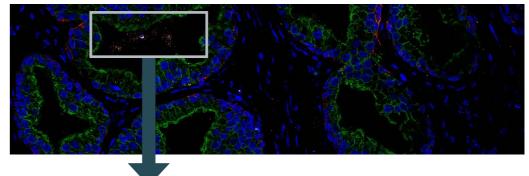
Mouse Brain. Courtesy of Jakobs University Bremen

# **EXPANSION-BASED SUPER RESOLUTION**

Bring confocal imaging to a new level of precision by combining TissueFAXS Q with expansion microscopy.



Optical imaging: Expansion Microscopy. Science. 2015 Jan 30;347(6221):543-8.





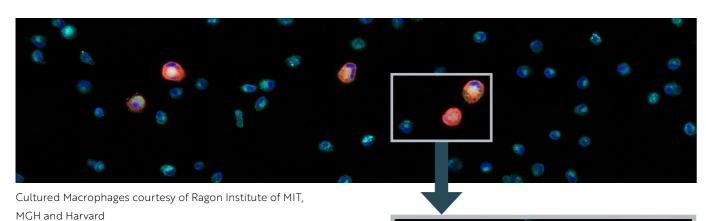
Prostate sample

- Expansion: 4x
- · Scanning: 40x
- Effective Mag: 160x

Prostate sample. Courtesy of EXT BIO



# **CONFOCAL IMAGING OF CULTURED CELLS**



#### **ADDITIONAL FEATURES**

- Supports live cell imaging
- Acquisition of Z-stacks
- · Contrast enhancement by smart projection
- · Compatible with Imaris 3D/4D image visualization
- Export to FCS Express Image Cytometry

## PROPERTIES OF TF CONFOCAL CONFIGURATIONS

	TF Q+	TF SL Q+	TF iQ+
Special feature	Confocal imaging	High-throughput confocal imaging	Confocal imaging of cultured cells as well as slides
Microscope stand	Upright	Upright	Inverted
Microscopy mode	Confocal imaging, wide- field fluorescence, bright- field	Confocal imaging, wide- field fluorescence, bright- field	Confocal imaging, wide- field fluorescence, bright- field
Compatible slide formats	All standard and over-sized slides	All standard and double-sized slides	All standard and over-sized slides, cell culture plates/flasks, petri dish
Slide capacity	8	120	8
Objectives	Up to 7	Up to 7	Up to 6
Camera fluorescence	sCMOS (16-bit, 2048x2048, monochrome)	sCMOS (16-bit, 2048x2048, monochrome)	sCMOS (16-bit, 2048x2048, monochrome)
Camera brightfield	CMOS camera (color camera)	CMOS camera (color camera)	CMOS camera (color camera)
Light sources	Solid-state multicolor LED VIS-LED	Solid-state multicolor LED VIS-LED	Solid-state multicolor LED VIS-LED

# **TG USER EXPERIENCES**



# A WORLD OF DIFFERENCE

»The addition of the TissueFAXS INVERTED PLUS to our core facilities' repertoire has made a world of difference to the ease of data collection and processing. The acquisition software is remarkably well-designed, offering extreme flexibility without compromising on the robustness and ease of use for the whole system.«

(<u>Dr. Jan Soetaert</u>, Queen Mary University of London)



# THE BEST STATE OF ART

»I have been working with the TissueFAXS Cytometer and the analysis software from TissueGnostics for more than 10 years. My focus was to determine markers in the tissue, not only to determine the protein expression profile of the marker but also the subcellular location within the tissue. Looking into other systems, the TissueGnostics systems still provide in my opinion the best state of art and a unique analysis platform. I'm a strong TissueGnostics supporter and will continue the investigation of protein expression with the TissueFAXS analysis system in cancer tissue. «

(Dr. Franco Fortunato, University of Heidelberg)



# REFERENCE PUBLICATIONS

TissueGnostics systems produce valuable research imaging on six contintents around the world and the list of publications grows daily. Check TG's searchable online database of publications to see how TissueGnostics can support you!

www.tissuegnostics.com

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# **MEET US GLOBALLY**





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