

# QUVISPIM PURE LIVE IMAGING

### **QuVi** SPIM – THE UPRIGHT LIGHT-SHEET MICROSCOPE

The **QuVi** SPIM is a highly versatile upright light-sheet microscope for 3D imaging of living, fixed and cleared samples. Based on our robust, stable system platform, it combines dual-view acquisition with high precision, long travel range stages. The **QuVi** SPIM is optimized for long-term, high-throughput imaging at subcellular isotropic resolution. It features an easy sample mounting and an intuitive software and hardware concept.

- High-throughput acquisition of large sample numbers for quantitative analyses
- Stable, long-term inaging of 3D cell culture models (spheroids, organoids)
- Live imaging of (sub-)cellular processes at high spatio-temporal resolution

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 In toto imaging of large cleared samples By means of its flexible optical concept, modular sample mounting and closed design, the **QuVi** SPIM...

- enables fast changing between live and cleared samples
- generates image data for quantitative analysis of biological features and processes
- offers full and stable environmental control
- > is a laser safety Class 1 bench-top system

Join us on our journey to a fascinating world of new applications – come and explore it with us!



## **QUVISPIM** SPECIFICATIONS

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### UPRIGHT, DUAL VIEW, DUAL COLOR

- Upright microscope configuration
- > Symmetric orthogonal dual views
- > Two optical configurations available:
- Simultaneous dual-color detection with sequential dual-view acquisition Or:

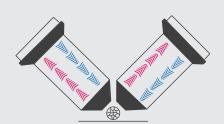
Simultaneous dual-view acquisition with sequential multi-color detection

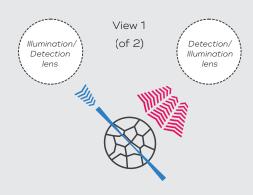
> Objectives:

40X @ 0.8 NA water immersion for live samples (2x)

Or:

16X @ 0.4 NA multi-immersion for live and cleared samples (2x)





#### MODULAR AND FLEXIBLE

- > Easy switching between live, fixed and cleared sample imaging
- Sample mounting in SBS plate format from one-well plates to personalized design
- > Quick load feature for easy sample accessibility
- Low magnification views for easy sample navigation even in complex samples
- > Up to 6 laser lines, selectable from 405 / 445 / 488 / 515 / 561 / 594 / 640 / 685 / 785 nm
- > Two filter wheels with 10 filter positions each

### LIVE AND CLEARED SAMPLES

- > Live and fixed 2D and 3D cell culture models
- (Epi-)genomics and transcriptomics screening
- > Drug end-point analysis
- > Cleared entire organs
- > Cleared brain tissue
- Cleared organoids
- > Fixed tissue slices

### LIVE AND HIGH-THROUGHPUT IMAGING

- > Large sample mounting area (50 mm x 50 mm)
- $\rightarrow$  Hundreds of samples @ the same condition screening-ready
- > High-precision, high-speed stage
- Stable environment control with gradient-free heating
- Long-term imaging of live 3D cell culture models with minimal phototoxic effects



### VERSATILE IMAGING

- Adjustable light-sheet thickness:
  2-12 µm
- > Scanned light-sheet for flexible field of views up to 800  $\mu m$  x 800  $\mu m$
- > Stack size up to 50 mm
- Robust aberration correction
  even in complex samples
- > Line illumination for efficient background suppression
- Acquisition speed up to 500 frames per second