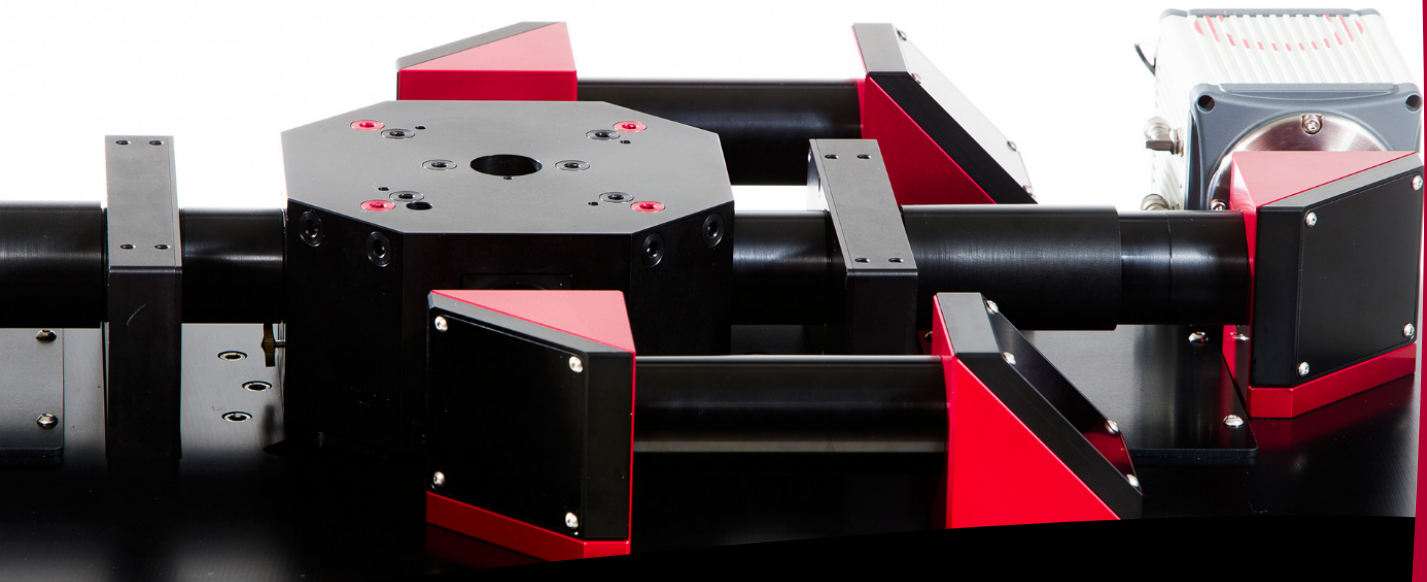


MuVi-SPIM



X LUXENDO
the light-sheet company

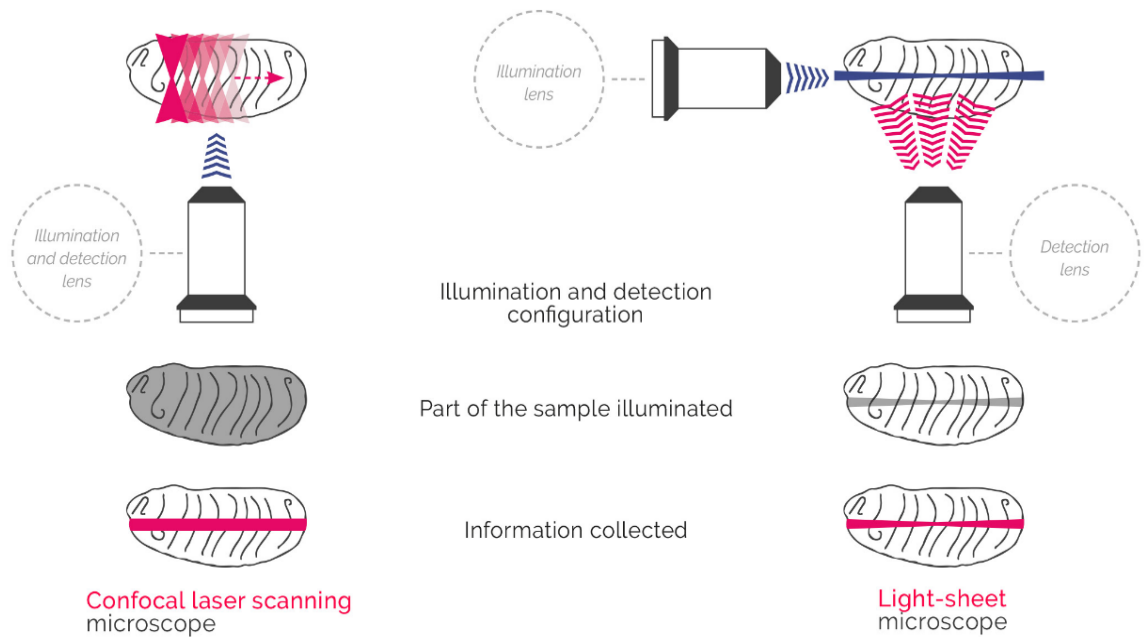
Life in the Fast Lane

- Large Field of View
- Close-to-confocal Resolution
- Very High Imaging Speed
- Gentle Sample Handling and Low Phototoxicity
- High Sensitivity and Low Noise
- 360° Illumination and Detection

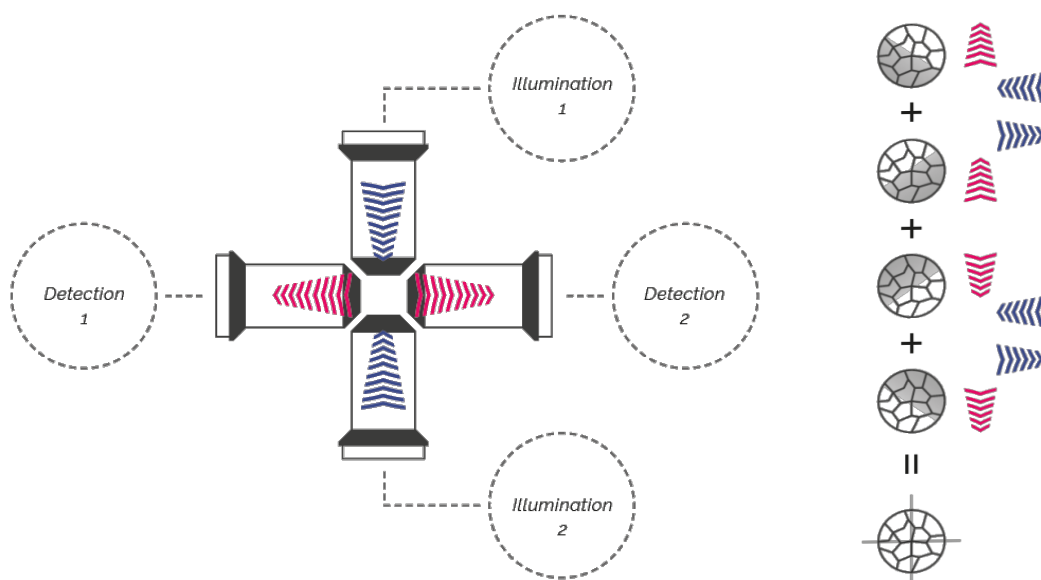
MuVi-SPIM

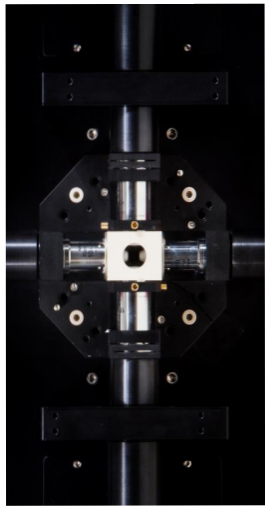
The Technology

The MuVi-SPIM utilizes a sheet of laser light to illuminate only a thin slice of a fluorescently labeled sample. A wide-field fluorescence microscope, placed perpendicular to the light-sheet, serves to collect the fluorescence signal and images the observed region by means of a camera.

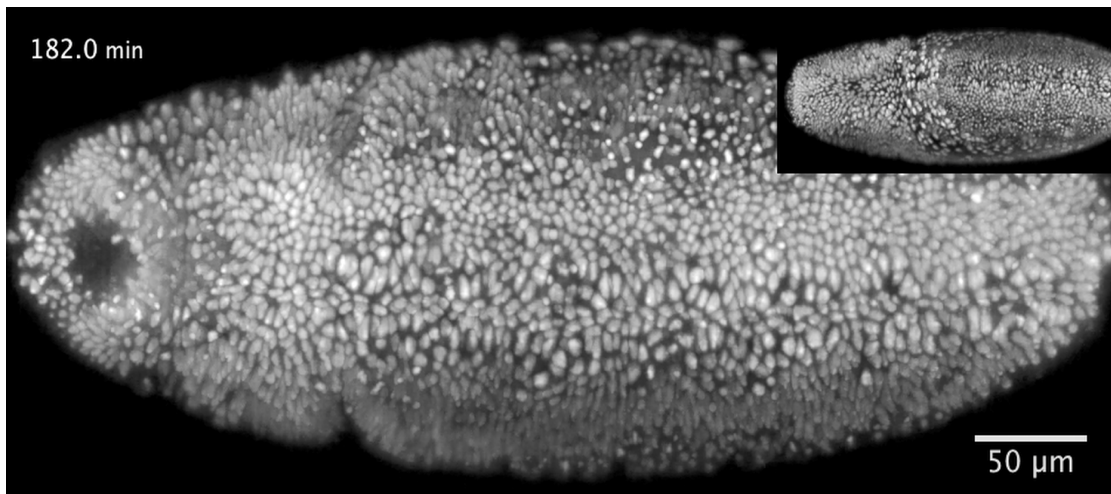


The MuVi-SPIM provides four simultaneous orthogonal views on large living specimens without the need for sample rotation. This avoids shadowing effects and facilitates long-term imaging at dramatically increased acquisition speed. Modular software concepts allows the flexible design of complex experimental layouts. 3D image data are used in real-time and directly streamed to a storage and data processing server.

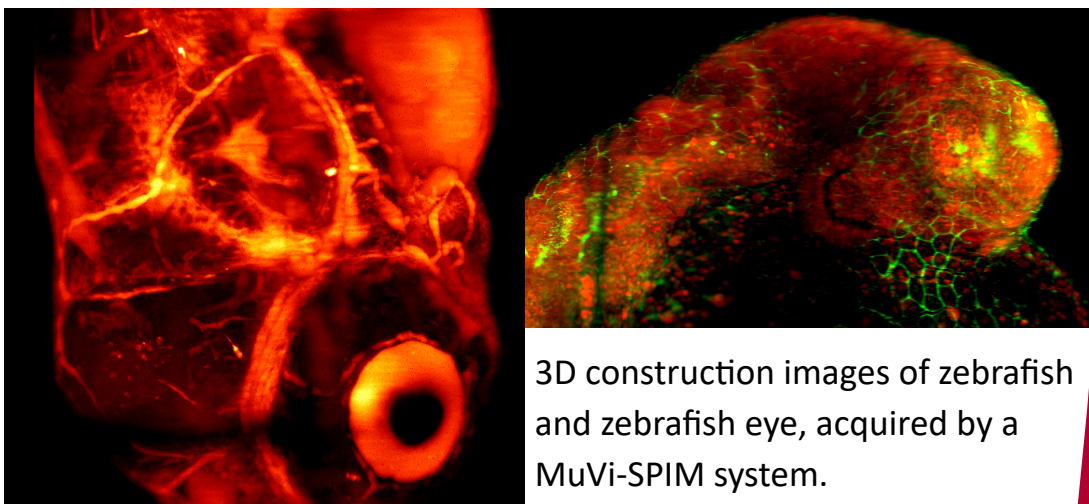




MuVi-SPIM system uses some unique and some patented technologies. The four objective lenses allow four combinations of illumination and detection. This provides four orthogonal views of the specimen without the need for sample rotation. It enables multiple view imaging of large samples at unprecedented speed with long-term stability.



A fruit fly embryo from when it was about two-and-a-half hours old until it walked away from the microscope as a larva, acquired by a MuVi-SPIM system.



3D construction images of zebrafish and zebrafish eye, acquired by a MuVi-SPIM system.

More movies can be viewed in SANE ASIA YouTube channel.



Fast Imaging

Large field of view, close-to-confocal resolution, very high imaging speed, highest sensitivity and minimum noise.



Seeing life from a different perspective -or four

3D imaging of large specimen with light-sheet illumination, gentle sample handling.



Light Sheet Microscopy

Excellent signal-to-noise ratio, low photobleaching and phototoxicity.



360° illumination and detection

Intrinsic 3D optical sectioning, high time resolution, long-term stability, real-time data fusion and visualization.

Specifications

Laser	Laser combiner with six laser positions
	445, 488, 515, 532, 561, 594, 642, and 685nm, 50mW
	Fast modulation and high extinction
	Chromatic correction from 440 to 660 nm
Detection Optics	Light-sheet generation by beam scanning
	Variable light-sheet thickness (optional)
	Water-dipping objective lenses
	Fast filter wheels with 10 positions and 50ms between adjacent positions
Objective Lens Mounting Unit	Variable magnification (optional)
	High-speed sCMOS camera Hamamatsu ORCA-Flash 4.0
	Confocal mode available
	2x Nikon CHI Plan Fluor 10XW 0.3NA water immersion for illumination
Sample Chamber and Stage	2x Nikon CFI LWD 25XW 1.1NA water immersion for detection
	Mounting Chamber with temperature control (15°C - 40°C)
	Other objective lenses upon request
	Water-sealed inert PEEK plastic chamber, autoclavable and biocompatible
System Control	Sample supported from below for improved stability
	Easy access from above for sample mounting etc.
	Fast and precise temperature control, range 15-40°C
	XYZ piezo crawler stage with 100nm resolution and 8.5mm(X) and 1.2mm (Y) travel range
System Control	High precision XYZ and fast rotation stage
	Embedded microscope software with open communication interface
	Open GUI control for interface control and microscope automation
	High-speed RAID controller for data streaming
System Control	HIVE High Speed Centralized Data System (Optional)