

MuVi-SPIM

X LUXENDO
the light-sheet company

MuVi-SPIM

SEEING LIFE FROM A DIFERENT ANGLE – OR FOUR

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. The modular software concept allows the flexible design of complex experimental layouts.

- › 3D imaging of large specimen with light-sheet illumination
- › Gentle sample handling and low phototoxicity
- › Highly sensitive and fast imaging

IMAGING LIFE IN THE FAST LANE

Latest sCMOS camera technology and optimized combinations of objective lenses enable you to obtain the best from your sample: data you always wanted but could never get.

- › Large field of view
- › Close-to-confocal resolution
- › Very high imaging speed
- › Highest sensitivity and minimal noise



We joined



Luxendo GmbH

Fluorescence Microscopy Business Unit
Bruker Nano Surfaces Division
Meyerhofstr. 1 · 69117 Heidelberg · Germany
P +49 6221 187 31 50 · F +49 6221 187 31 99
info@luxendo.eu

luxendo.eu

MuVi-SPIM

THE TECHNOLOGY

X LUXENDO
the light-sheet company

See the 3D Video here!

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, filmed with a MuVi-SPIM developed at EMBL Heidelberg.

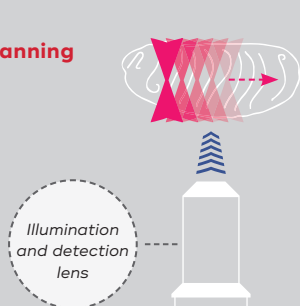


The MuVi-SPIM utilizes a sheet of laser light to illuminate only a thin slice of a fluorescently labeled sample. A wide-field fluorescence microscope, placed perpendicular to the light-sheet, serves to collect the fluorescence signal and images the observed region by means of a camera. This features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

- > Intrinsic 3D optical sectioning
- > Excellent signal-to-noise ratio
- > High time resolution
- > Drastically reduced overall photo bleaching and phototoxicity

1

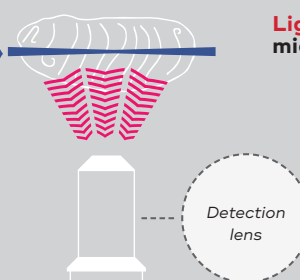
Confocal laser scanning microscope



Illumination lens

Illumination and detection configuration

Light-sheet microscope



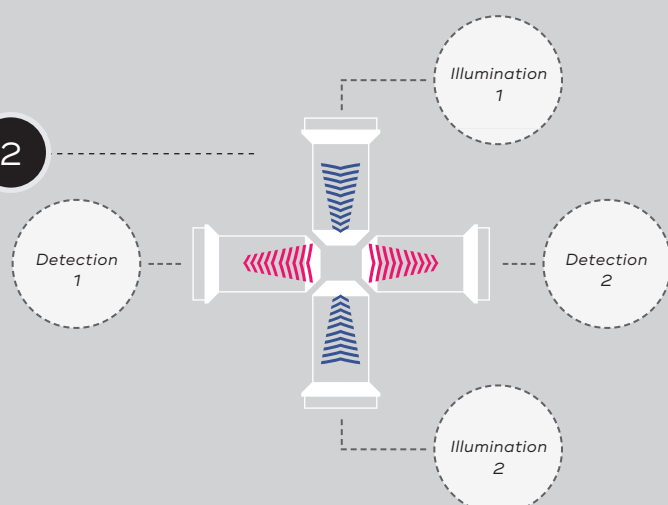
Part of the sample illuminated

Information collected

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, enabling:

- > Multiple view imaging of large samples at unprecedented speed
- > Long-term stability
- > Time series over several days
- > Robust image registration
- > Real-time data fusion and visualisation

2



3

