MuVi-SPIM

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
BRUKER

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

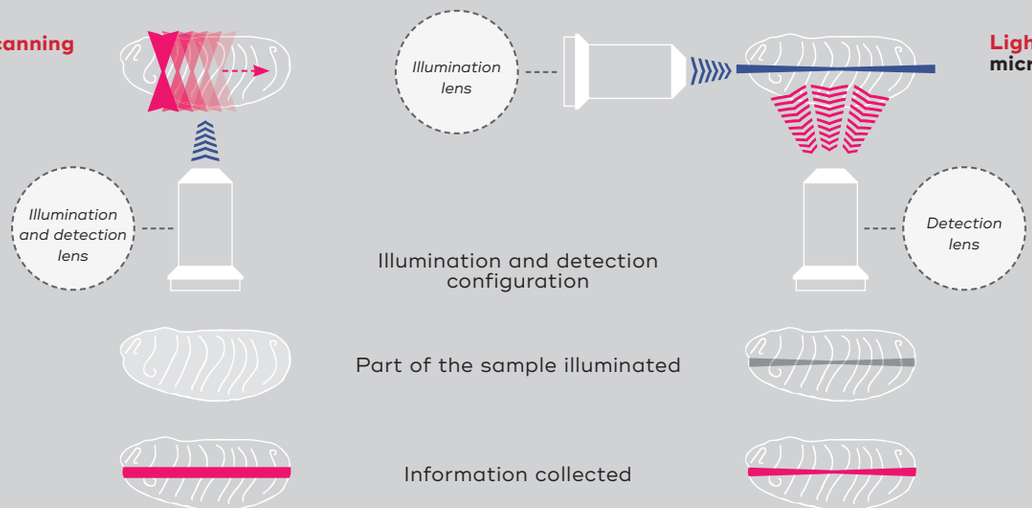
LUXENDO
the light-sheet company

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

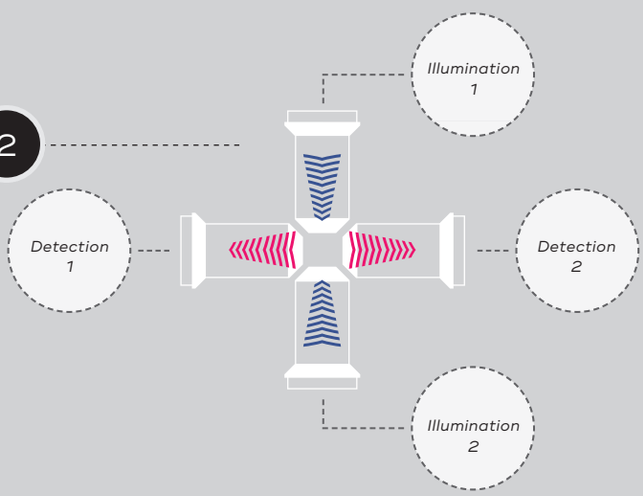
1



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