

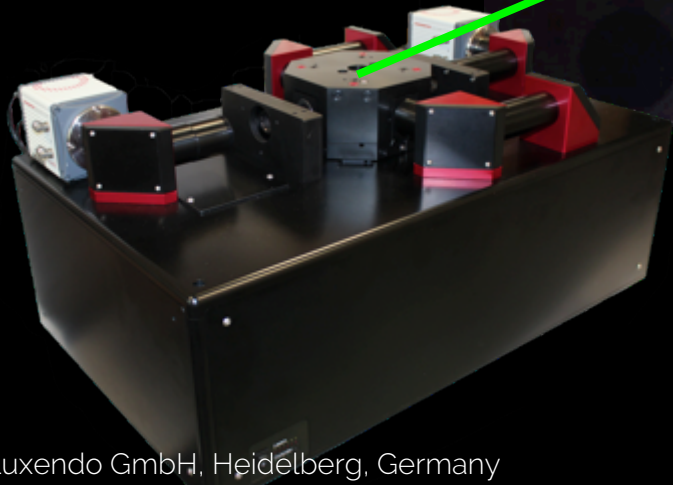
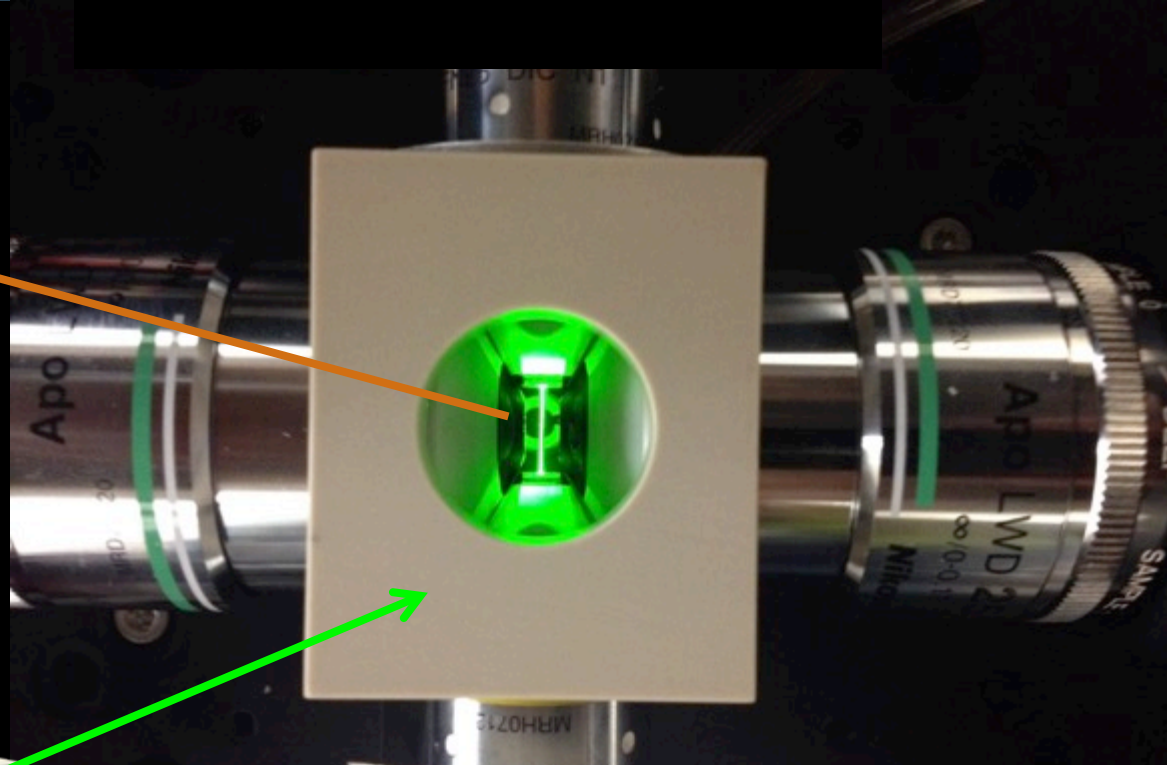
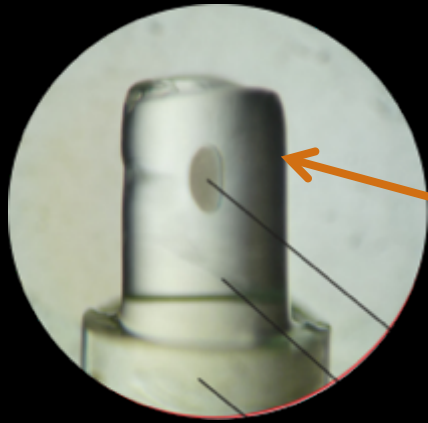
X LUXENDO
the light-sheet company

revolutionizing bioimaging with light-sheets



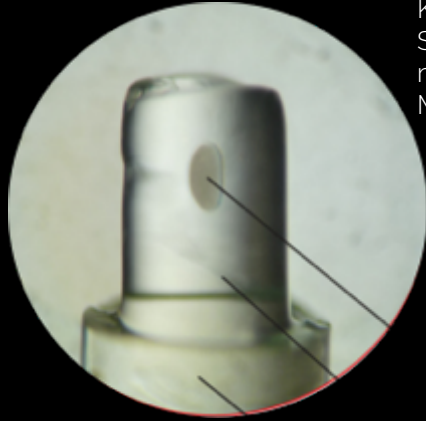
LUXENDO GmbH, Heidelberg, Germany (www.luxendo.eu)

MuVi-SPIM setup



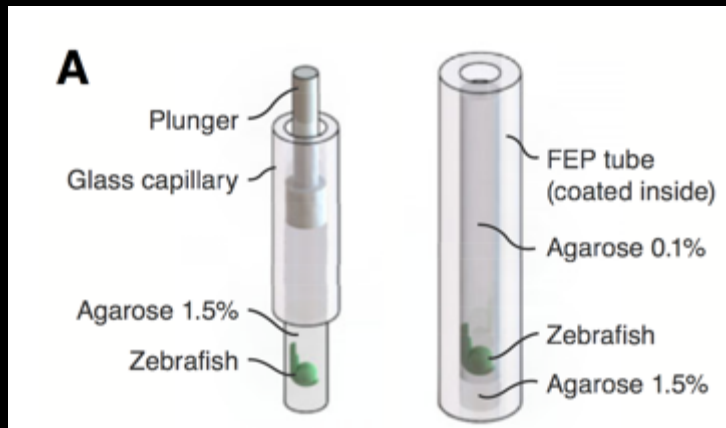
- Light sheet thickness: variable from 1 to 8 μm
- Diameter of chamber aperture: 20 mm
- Top side of chamber is 23 mm above light sheet
- Dimensions (25x/1.1 detection obj):
 - Space between lenses: 4 x 4 mm
 - Stage travel range: 2 x 2 mm
 - Field of View: 0.5 x 0.5 mm

MuVi-SPIM sample mounting



Krzic U, Gunther S, Saunders TE, Streichan SJ & Hufnagel L. Multiview light-sheet microscope for rapid in toto imaging. Nat. Methods 9, 730 (2012).

- Samples of up to approx 1.2 mm
- Embedded in polymer (agarose, gelrite, ...)
- or presented in a egg-cup-type dent on the top of a polymer cylinder
- Sample mounting in FEP tubes possible
- Polymer cylinder supported from below!
- Sample in water, Fish medium, PBS, etc (refractive index close to 1.33)



Kaufmann, A., Mickoleit, M., Weber, M. & Huiskens, J. Multilayer mounting enables long-term imaging of zebrafish development in a light sheet microscope. Development 139, 3242–3247 (2012).

- Successfully used for imaging
 - Zebrafish embryos up to 4 days old (in toto imaging of early embryos and, e.g., brain, kidney, heart development in later embryos)
 - Drosophila embryos
 - C.elegans (challenge of anesthetic similar to other microscopes)
 - Organoids, Spheroids
 - Arabidopsis root growth imaging (and other plants)

