

# Light Sheet Microscopes

Imaging solutions for a variety of applications



SAMPLE  
PREPARATION



LIGHT SHEET  
MICROSCOPY



3D DATA  
ANALYSIS



## SmartSPIM

Our original light sheet imaging system can image an intact mouse brain hemisphere in 8 minutes at 1.63X magnification. SmartSPIM is ideal for imaging:

- Whole juvenile mice
- Small animal organs, individually or in sequence
- Marmoset hemispheres
- Small samples like tumors, biopsies, and organoids



## MegaSPIM

Our new microscope can image a thick human brain section in 4 hours at 1.8X magnification. MegaSPIM is ideal for imaging:

- Thick sections of large samples such as human and other primate organs
- Arrays of organoids, biopsies, tumors, and small animal organs
- Thin sections

	SmartSPIM Specifications	MegaSPIM Specifications
<b>Light Sheet Formation</b>	Dynamic axial sweeping (Dean et al. 2015)	
<b>Maximum Specimen Lateral Size</b>	40 mm x 65 mm (extended)	200 mm x 200 mm
<b>Illumination Optics</b>	Custom-designed objectives, NA = 0.125, broadband chromatically corrected	
<b>Detection Objectives</b>	1.63X, 3.6X, 9X, 15X, 22X multi-immersion dipping objectives	
<b>Camera</b>	Hamamatsu ORCA-Fusion digital sCMOS camera (2304 x 2304 pixels) with lightsheet readout mode	
<b>Laser Lines</b>	Up to 7; selection of 405, 445, 488, 514, 561, 594, 639, 690, and 785 nm	
<b>Multi-Sample Imaging</b>	Sequential imaging	Array imaging
<b>Acquisition Software</b>	Intuitive software with quick alignment procedure	
<b>Streamlined Post-Processing Software</b>	Destriping and stitching	Destriping, deskewing, and stitching

