SLICE
Revolutionary Light- Sheet Microscopy System

Introducing SLICE - a groundbreaking, cost-effective solution for high-resolution 3D imaging of biological samples. Developed by leading microscopy researchers at Columbia University, SLICE brings advanced light-sheet microscopy capabilities to labs of all sizes.

Why Choose SLICE?

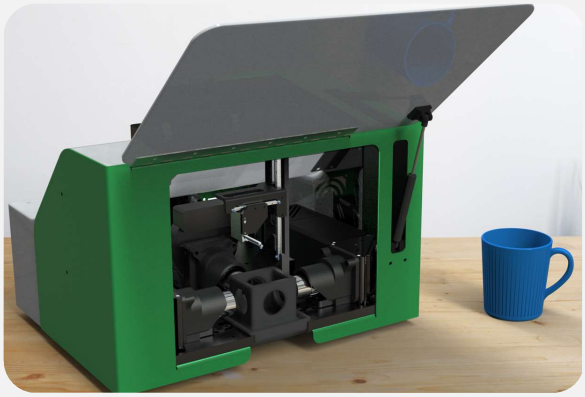
SLICE offers the power of advanced light-sheet microscopy at a fraction of the cost of conventional systems. Its compact design and user-friendly interface make it ideal for labs of all sizes, democratizing access to cutting-edge imaging technology.

Key Features

- High-resolution imaging suitable for quantitative image analysis
- Cost-effective: comparable to a typical widefield fluorescence microscope
- Compact design, benchtop ready
- 3 illumination wavelengths

Versatile Applications

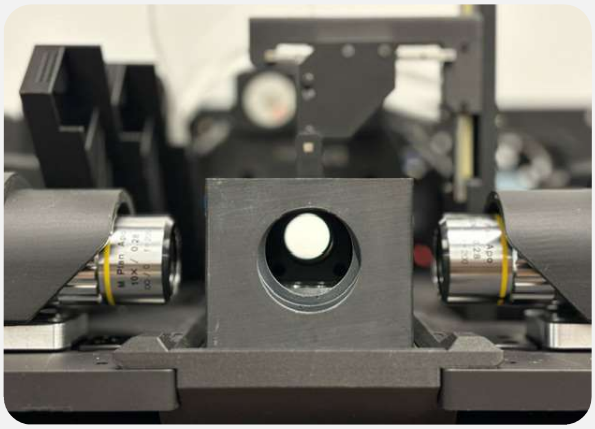
- Whole-brain imaging and mapping
- Vascular system imaging
- Neurodegenerative disease research
- Developmental biology studies
- General biological research requiring 3D imaging



Unparalleled Performance

SLICE offers exceptional imaging capabilities:

- Easy to operate and align
- Software-driven light-sheet for fast scan or high resolution mode
- Minimal photobleaching for extended imaging sessions



mbfbioscience.com | 1-802-288-9290 | info@mbfbioscience.com

SLICE
Revolutionary Light- Sheet Microscopy System

Advanced Features

- **Software-Driven Light-Sheet Modulation:** Adjustable light-sheet thickness for optimized imaging
- **Linearly Adaptive Light-Sheet Offset Correction:** Compensates for optical misalignments throughout large extended samples
- **Multi-View Imaging:** Dual opposing light sheets for uniform illumination
- **Automated Multi-Channel Acquisition:** Seamless switching between illumination wavelengths
- **Acquisition Software:** Streamlines image collection, stitching, post- processing, 3D visualization with add-ons available for atlas registration, neuron quantification, cell counting, deconvolution, etc.

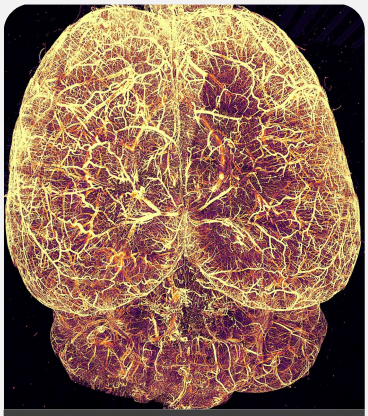
Sample Preparation and Compatibility

The SLICE system is designed to work with a variety of sample preparation techniques:

- **Clearing Methods:** Compatible with iDISCO, CLARITY, SHANEL, BINAREE and other optical clearing techniques
- **Sample Mounting:** Custom-designed oil chamber with RI-matching oil (n=1.454)
- **Multi-Color Imaging:** Compatible with commonly used fluorescent proteins and dyes
- **Sample Types:** Whole mouse brains, human brain samples, organoids, bacterial biofilms

Specifications

- **Lateral Resolution:** ~1µm (with 10x objective)
- **Axial Resolution:** ~5µm at light sheet waist
- **Light-Sheet Field of View (FOV):** Software controllable; >640 µm
- **Imaging Speed:** Up to 40 frames per second
- **Multi-Color Imaging:** Blue (440-460 nm), Green (515-530 nm), Red (632-642 nm)
- **Dimensions:** L 457mm x W 368mm x H 304mm
- Software-driven multi-resolution imaging



High-resolution imaging of the mouse brain vasculature in an iDISCO cleared sample. Courtesy Dr. Raju Tomer, Columbia University.

New to light sheet microscopy? We have you covered.

Our "everything but the brain" package provides you with the hardware and software to clear, image, and analyze samples – all for an affordable price.

Get in Touch

Ready to revolutionize your imaging capabilities?
Contact us today to learn more about SLICE or to schedule a demo.

Learn More